OCD-ARTESIA

R-111-POTASH

RECEIVED
MAR 14 2012
NMOCD ARTESIA

Form 3160-3
(April 2004)

RECEIVED
MAR 14 2012
FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007
NMOCD ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM-114356

6. If Indian, Allotee or Tribe Name:

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.:

1b Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.: Sandy No. 20H [39122]

2 Name of Operator: Cimarex Energy Co. of Colorado [162683]

9. API Well No.: 30-015- 40053

3a. Address: 600 N Marienfeld St Ste 600 Midland Tx 79701

3b Phone No *(include area code)*: 432-571-7800

10. Field and Pool, or Exploratory: Bone Spring Wildcat [96053]

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

At Surface: 2114 FNL & 592 FWL

At proposed prod Zone: 1980 FNL & 330 FEL *Horizontal Bone Spring test*

11. Sec , T R M. or Blk. and Survey or Area: 24-23S-30E

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

12 County or Parish: Eddy

13. State: NM

15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig unit line if any)	16. No of acres in lease	17 Spacing Unit dedicated to this well
592'	640 acres	S2N2, S/2 480 acres
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	**19. Proposed Depth**	**20. BLM/BIA Bond No. on File**
151'	MD 14187 TVD 9900	NM-2575
21 Elevations (Show whether DF, KDB, RT, GL, etc)	**22 Approximate date work will start***	**23. Estimated duration**
3258' GR	10.01.11	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
2 A Drilling Plan
3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
5 Operator Certification
6 Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
Zeno Farris		8.8.11

Title: Manager Operations Administration

Approved By *(Signature)*	Name (Printed/Typed)	Date
/s/ Felicia J. Probert	/s/ Felicia J. Probert	3/7/12
Title For STATE DIRECTOR	**Office** NM STATE OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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

* *(Instructions on page 2)*

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

Operator Certification Statement
Sandy No. 20H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T23S-R30E, 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 8th day of August, 2011

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
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

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

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Form C-102
Revised July 16, 2010
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-40053	96063	Bone Spring Wildcat

Property Code	Property Name	Well Number
39122	SANDY	20H

OGRID No.	Operator Name	Elevation
21712	CIMAREX ENERGY CO. OF COLORADO	3258'

Surface Location

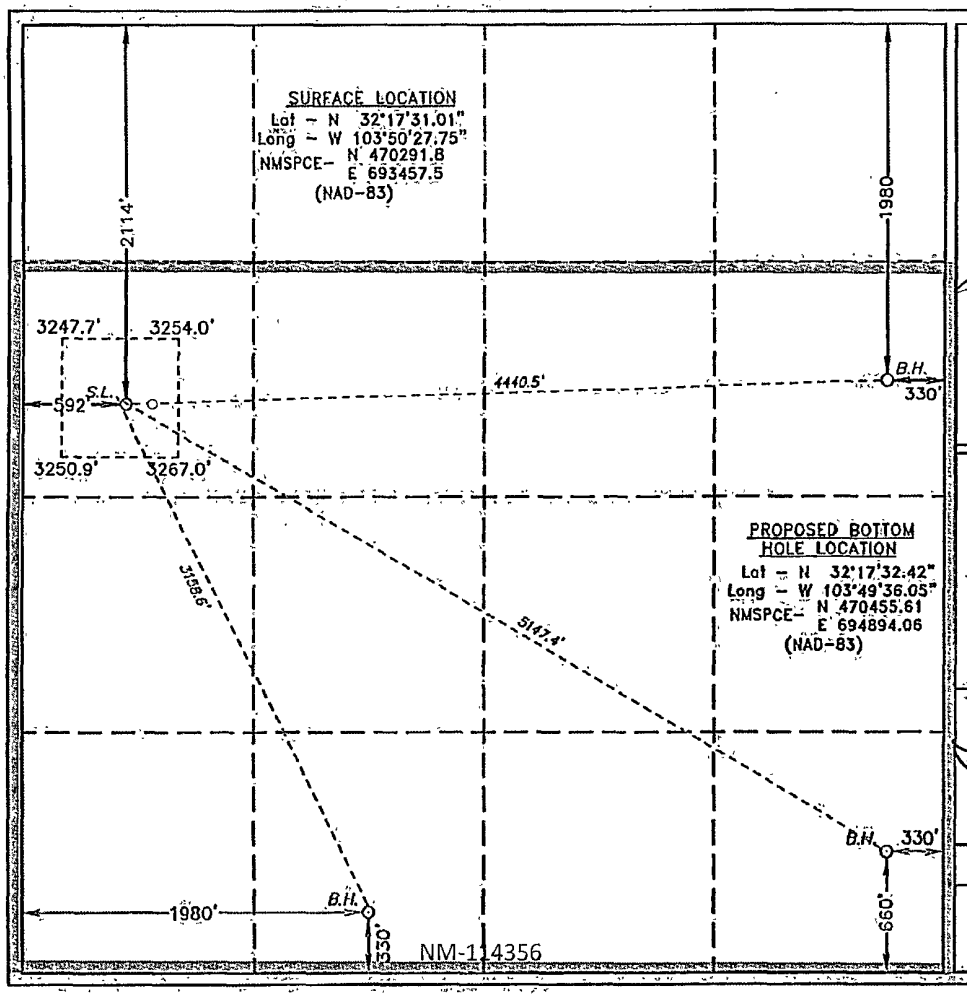
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	24	23 S	30 E		2114	NORTH	592	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	24	23 S	30 E		1980	NORTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
480			

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



OPERATOR CERTIFICATION

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

Zeno Farris 12/27/2011

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 supervison, and that the same is true and correct to the best of my belief.

JUNE 10, 2009

Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

NM PLS No. 7977

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 24796

Application to Drill
Sandy No. 20H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T23S-R30E, Eddy County, NM

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

1 Location: SHL 2114 FNL & 592 FWL
BHL 1980 FNL & 330 FEL

2 Elevation above sea level: 3258' GR

3 Geologic name of surface formation: Quaternery 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 14187 TVD 9900

6 Estimated tops of geological markers:

Rustler	250'
Top of Salt	700'
Base of Salt	3630'
Delaware Sands	3922'
Brushy Canyon	6150'
Bone Spring	7900'
FBSS	8800'
SBSS	9700'

7 Possible mineral bearing formation:

Bone Spring	Oil
Delaware	Oil

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 270'	8.4 - 8.6	28	NC	FW
270' to 3875'	10.0	30-32	NC	FW, Brine
3875' to 0'	8.4-9.0	28-29	NC	FW and brine, use hi-vis sweeps to keep hole clean
9584' to 14187'	8.5-9.5	27-45	NC	2% KCL

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

Proposed drilling Plan

After setting surface and intermediate casing, drill 8.75" hole to KOP @ 9584 and then kick off for 8.75" lateral. Drill to TD @ 14187 MD, 9900 TVD and set 5.5" casing from 0-14187 and cement as shown on following page.

Application to Drill
Sandy No. 20H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T23S-R30E, Eddy County, NM

9 Casing & Cementing Program:

See COA

String	Hole Size	Depth			Casing OD		Weight	Collar	Grade
Surface	17½"	0'	to	245 ~~270~~'	New	13⅜"	48#	STC	H-40
Intermediate	12¼"	0'	to	3875'	New	9⅝"	40#	LTC	J-55
Production	8¾"	0'	to	14187'	New	5½"	17#	LTC	P-110

10 Cementing:

Surface Lead:215SKS Halcem C + 4% Bentomite + 2% CaCl 13.5ppg 1.75yield 100% Excess
Tail:30SKS Halcem C + 2% CaCl 14.2ppg 1.34 yield 50% Excess
TOC Surface **Centralizers per Onshorder 2.III.B.1.f**

Intermediate Lead:1415SKS EconoCem + 5% salt + 5 lbm gilsonite 14.6ppg 1.54yield 70% Excess
Tail:200SKS HalCem + 1% CaCl 14.8ppg 1.34 yield 25% Excess
TOC Surface

Production Lead:1435SKS EconoCem - H + 0.2 % HR-601 2.44 11.9ppg 2.44 yield 50% Excess
Tail:1045SKS Versacem - H + 0.5% Halad(R)-344 + 0.4% CFR-3 + 1 lbm/sk salt + 0.1% HR-601 14.5ppg 1.22 yield 25% Excess
TOC 0' **Centralizers every 3rd joint in lateral to provide adequate cement coverage every 100' unless lateral doglegs require greater spacing between centralizers.**

According to the NM State Enginner, depth to ground water is 200 feet. Fresh water zones will be protected by setting 13⅜ casing at 270 and cementing to surface. Hydrocarbon zones will be protected by setting 9⅝" casing at 3875 and production casing at 14187 and cementing to surface.

Collapse Factor	*Burst Factor*	*Tension Factor*
1.125	1.125	1.6

11 Pressure control Equipment:
Exhibit "E". A 13⅝" 5000 PSI working pressure BOP tested to 3000 psi consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head as needed. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. Mud gas seperator will be available when drilling in H2S areas.

BOP unit will be hydraulically operated. BOP will be nippled 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 tested to 3000 psi.

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

Application to Drill
Sandy No. 20H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T23S-R30E, Eddy County, NM

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

12 Testing, Logging and Coring Program: See COA
- A. Mud logging program: 2 man unit from 3875 to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:
No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Strata does not anticipate that there will be enough H_2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H_2S Safety package on all wells, attached is an "H_2S 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 **4455 psi** Estimated BHT **130°**

14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.
Drilling expected to take 30-35 days
If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:
After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.
Bone Spring pay will be perforated and stimulated.
The proposed well will be tested and potentialed as **an oil well.**

Cimarex Energy Co. of Colorado

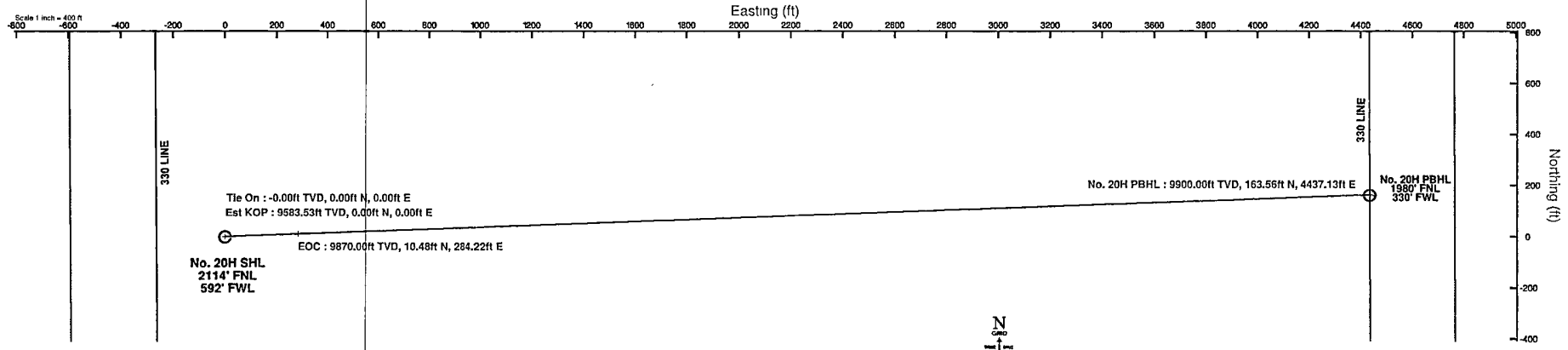
Location: Eddy County, NM
Field: (Sandy) Sec 24, T23S, R30E
Facility: Sandy No. 20H

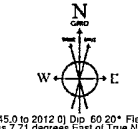
Slot: No. 20H SHL
Well: No. 20H
Wellbore: No. 20H PWB

BAKER HUGHES

Well Profile Data

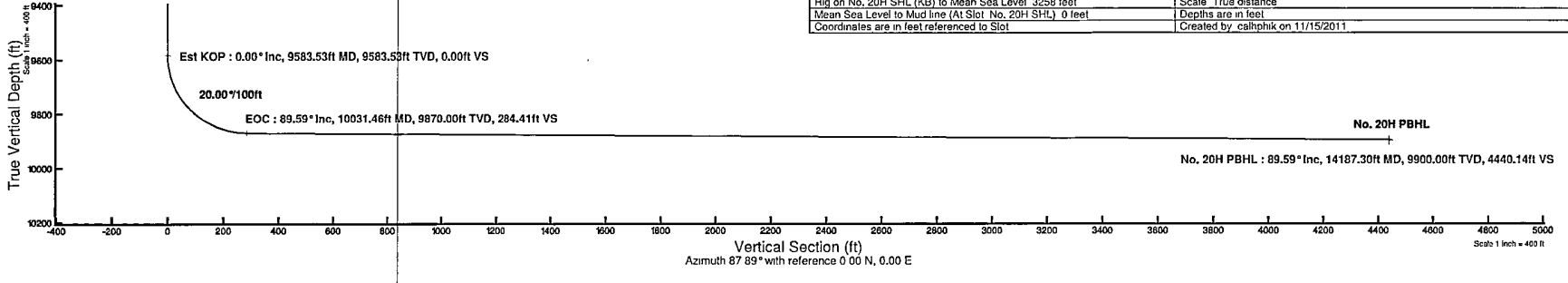
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	87.889	0.00	0.00	0.00	0.00	0.00
Est KOP	9583.53	0.000	87.889	9583.53	0.00	0.00	0.00	0.00
EOC	10031.46	89.586	87.889	9870.00	10.48	284.22	20.00	284.41
No. 20H PBHL	14187.30	89.586	87.889	9900.00	163.56	4437.13	0.00	4440.14





BGGM (1945.0 to 2012.0) Dip 60 20° Field 48637.1 nT
Magnetic North is 7.71 degrees East of True North (at 11/14/2011)
Grid North is 0.26 degrees East of True North
To correct azimuth from True to Grid subtract 0.26 degrees
To correct azimuth from Magnetic to Grid add 7.45 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.45 = 97.45

Plot reference wellpath is Prelim_2	
True vertical depths are referenced to Rig on No. 20H SHL (KB)	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 20H SHL (KB)	North Reference: Grid north
Rig on No. 20H SHL (KB) to Mean Sea Level: 3258 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No. 20H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: calhphik on 11/15/2011



Planned Wellpath Report

Prelim_2
Page 1 of 5

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co. of Colorado**	Slot	**No. 20H SHL**
Area	**Eddy County, NM**	Well	**No. 20H**
Field	**(Sandy) Sec 24, T23S, R30E**	Wellbore	**No. 20H PWB**
Facility	**Sandy No. 20H**		

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	**Calhphik**
Scale	**0.999936**	Report Generated	**11/15/2011** at **9:21:43 AM**
Convergence at slot	**0.26° East**	Database/Source file	**WA_Midland/No._20H_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**	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W
Facility Reference Pt			**693457.50**	**470291.80**	32°17'31.006"N	103°50'27.748"W
Field Reference Pt			**693457.50**	**470291.80**	32°17'31.006"N	103°50'27.748"W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on No. 20H SHL (KB) to GL	**3258.00ft**
Horizontal Reference Pt	**Slot**	Rig on No. 20H SHL (KB) to Mean Sea Level	**3258.00ft**
Vertical Reference Pt	**Rig on No. 20H SHL (KB)**	Rig on No. 20H SHL (KB) to Mud Line at Slot (No. 20H SHL)	**3258.00ft**
MD Reference Pt	**Rig on No. 20H SHL (KB)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**87.89°**

CIMAREX

Planned Wellpath Report

Prelim_2

Page 2 of 5

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 20H SHL
Area	Eddy County, NM	Well	No. 20H
Field	(Sandy) Sec 24, T23S, R30E	Wellbore	No. 20H PWB
Facility	Sandy No. 20H		

WELLPATH DATA (147 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	87.889	0.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	Tie On
100.00†	0.000	87.889	100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
200.00†	0.000	87.889	200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
300.00†	0.000	87.889	300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
400.00†	0.000	87.889	400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
500.00†	0.000	87.889	500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
600.00†	0.000	87.889	600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
700.00†	0.000	87.889	700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
800.00†	0.000	87.889	800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
900.00†	0.000	87.889	900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1000.00†	0.000	87.889	1000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1100.00†	0.000	87.889	1100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1200.00†	0.000	87.889	1200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1300.00†	0.000	87.889	1300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1400.00†	0.000	87.889	1400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1500.00†	0.000	87.889	1500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1600.00†	0.000	87.889	1600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1700.00†	0.000	87.889	1700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1800.00†	0.000	87.889	1800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
1900.00†	0.000	87.889	1900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2000.00†	0.000	87.889	2000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2100.00†	0.000	87.889	2100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2200.00†	0.000	87.889	2200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2300.00†	0.000	87.889	2300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2400.00†	0.000	87.889	2400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2500.00†	0.000	87.889	2500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2600.00†	0.000	87.889	2600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2700.00†	0.000	87.889	2700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2800.00†	0.000	87.889	2800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
2900.00†	0.000	87.889	2900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3000.00†	0.000	87.889	3000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3100.00†	0.000	87.889	3100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3200.00†	0.000	87.889	3200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3300.00†	0.000	87.889	3300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3400.00†	0.000	87.889	3400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3500.00†	0.000	87.889	3500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3600.00†	0.000	87.889	3600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3700.00†	0.000	87.889	3700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3800.00†	0.000	87.889	3800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
3900.00†	0.000	87.889	3900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4000.00†	0.000	87.889	4000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4100.00†	0.000	87.889	4100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4200.00†	0.000	87.889	4200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4300.00†	0.000	87.889	4300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4400.00†	0.000	87.889	4400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	

Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 20H SHL
Area	Eddy County, NM	Well	No. 20H
Field	(Sandy) Sec 24, T23S, R30E	Wellbore	No. 20H PWB
Facility	Sandy No. 20H		

WELLPATH DATA (147 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
4500.00†	0.000	87.889	4500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4600.00†	0.000	87.889	4600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4700.00†	0.000	87.889	4700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4800.00†	0.000	87.889	4800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
4900.00†	0.000	87.889	4900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5000.00†	0.000	87.889	5000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5100.00†	0.000	87.889	5100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5200.00†	0.000	87.889	5200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5300.00†	0.000	87.889	5300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5400.00†	0.000	87.889	5400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5500.00†	0.000	87.889	5500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5600.00†	0.000	87.889	5600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5700.00†	0.000	87.889	5700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5800.00†	0.000	87.889	5800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
5900.00†	0.000	87.889	5900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6000.00†	0.000	87.889	6000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6100.00†	0.000	87.889	6100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6200.00†	0.000	87.889	6200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6300.00†	0.000	87.889	6300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6400.00†	0.000	87.889	6400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6500.00†	0.000	87.889	6500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6600.00†	0.000	87.889	6600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6700.00†	0.000	87.889	6700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6800.00†	0.000	87.889	6800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
6900.00†	0.000	87.889	6900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7000.00†	0.000	87.889	7000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7100.00†	0.000	87.889	7100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7200.00†	0.000	87.889	7200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7300.00†	0.000	87.889	7300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7400.00†	0.000	87.889	7400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7500.00†	0.000	87.889	7500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7600.00†	0.000	87.889	7600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7700.00†	0.000	87.889	7700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7800.00†	0.000	87.889	7800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
7900.00†	0.000	87.889	7900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	Bone Spring
8000.00†	0.000	87.889	8000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
8100.00†	0.000	87.889	8100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
8200.00†	0.000	87.889	8200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
8215.00†	0.000	87.889	8215.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	Upper Bone Spring Shale
8300.00†	0.000	87.889	8300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
8400.00†	0.000	87.889	8400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
8500.00†	0.000	87.889	8500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
8600.00†	0.000	87.889	8600.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
8700.00†	0.000	87.889	8700.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
8800.00†	0.000	87.889	8800.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	1st Bone Spring Shale

Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 20H SHL
Area	Eddy County, NM	Well	No. 20H
Field	(Sandy) Sec 24, T23S, R30E	Wellbore	No. 20H PWB
Facility	Sandy No. 20H		

WELLPATH DATA (147 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
8900.00†	0.000	87.889	8900.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
9000.00†	0.000	87.889	9000.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
9100.00†	0.000	87.889	9100.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
9200.00†	0.000	87.889	9200.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
9300.00†	0.000	87.889	9300.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
9400.00†	0.000	87.889	9400.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
9500.00†	0.000	87.889	9500.00	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	
9583.53	0.000	87.889	9583.53	0.00	0.00	0.00	693457.50	470291.80	32°17'31.006"N	103°50'27.748"W	0.00	Est KOP
9600.00†	3.294	87.889	9599.99	0.47	0.02	0.47	693457.97	470291.82	32°17'31.006"N	103°50'27.742"W	20.00	
9700.00†	23.294	87.889	9696.82	23.35	0.86	23.34	693480.83	470292.66	32°17'31.014"N	103°50'27.476"W	20.00	
9703.47†	23.989	87.889	9700.00	24.74	0.91	24.73	693482.23	470292.71	32°17'31.014"N	103°50'27.460"W	20.00	2nd Bone Spring Shale
9800.00†	43.294	87.889	9779.98	77.97	2.87	77.91	693535.41	470294.67	32°17'31.031"N	103°50'26.840"W	20.00	
9900.00†	63.294	87.889	9839.45	157.73	5.81	157.63	693615.11	470297.61	32°17'31.056"N	103°50'25.911"W	20.00	
10000.00†	83.294	87.889	9868.05	253.03	9.32	252.85	693710.34	470301.12	32°17'31.087"N	103°50'24.802"W	20.00	
10031.46	89.586	87.889	9870.00	284.41	10.48	284.22	693741.70	470302.28	32°17'31.097"N	103°50'24.436"W	20.00	EOC
10100.00†	89.586	87.889	9870.50	352.95	13.00	352.71	693810.19	470304.80	32°17'31.119"N	103°50'23.638"W	0.00	
10200.00†	89.586	87.889	9871.22	452.95	16.68	452.64	693910.11	470308.48	32°17'31.151"N	103°50'22.474"W	0.00	
10300.00†	89.586	87.889	9871.94	552.94	20.37	552.57	694010.03	470312.17	32°17'31.182"N	103°50'21.310"W	0.00	
10400.00†	89.586	87.889	9872.66	652.94	24.05	652.50	694109.95	470315.85	32°17'31.214"N	103°50'20.146"W	0.00	
10500.00†	89.586	87.889	9873.38	752.94	27.74	752.43	694209.88	470319.53	32°17'31.246"N	103°50'18.981"W	0.00	
10600.00†	89.586	87.889	9874.10	852.93	31.42	852.36	694309.80	470323.22	32°17'31.278"N	103°50'17.817"W	0.00	
10700.00†	89.586	87.889	9874.83	952.93	35.10	952.29	694409.72	470326.90	32°17'31.310"N	103°50'16.653"W	0.00	
10800.00†	89.586	87.889	9875.55	1052.93	38.79	1052.22	694509.65	470330.58	32°17'31.342"N	103°50'15.488"W	0.00	
10900.00†	89.586	87.889	9876.27	1152.93	42.47	1152.14	694609.57	470334.27	32°17'31.374"N	103°50'14.324"W	0.00	
11000.00†	89.586	87.889	9876.99	1252.92	46.15	1252.07	694709.49	470337.95	32°17'31.406"N	103°50'13.160"W	0.00	
11100.00†	89.586	87.889	9877.71	1352.92	49.84	1352.00	694809.41	470341.63	32°17'31.438"N	103°50'11.996"W	0.00	
11200.00†	89.586	87.889	9878.44	1452.92	53.52	1451.93	694909.34	470345.32	32°17'31.469"N	103°50'10.831"W	0.00	
11300.00†	89.586	87.889	9879.16	1552.92	57.20	1551.86	695009.26	470349.00	32°17'31.501"N	103°50'09.667"W	0.00	
11400.00†	89.586	87.889	9879.88	1652.91	60.89	1651.79	695109.18	470352.68	32°17'31.533"N	103°50'08.503"W	0.00	
11500.00†	89.586	87.889	9880.60	1752.91	64.57	1751.72	695209.11	470356.37	32°17'31.565"N	103°50'07.338"W	0.00	
11600.00†	89.586	87.889	9881.32	1852.91	68.25	1851.65	695309.03	470360.05	32°17'31.597"N	103°50'06.174"W	0.00	
11700.00†	89.586	87.889	9882.05	1952.91	71.94	1951.58	695408.95	470363.73	32°17'31.629"N	103°50'05.010"W	0.00	
11800.00†	89.586	87.889	9882.77	2052.90	75.62	2051.51	695508.87	470367.42	32°17'31.661"N	103°50'03.845"W	0.00	
11900.00†	89.586	87.889	9883.49	2152.90	79.30	2151.44	695608.80	470371.10	32°17'31.692"N	103°50'02.681"W	0.00	
12000.00†	89.586	87.889	9884.21	2252.90	82.99	2251.37	695708.72	470374.78	32°17'31.724"N	103°50'01.517"W	0.00	
12100.00†	89.586	87.889	9884.93	2352.90	86.67	2351.30	695808.64	470378.47	32°17'31.756"N	103°50'00.353"W	0.00	
12200.00†	89.586	87.889	9885.65	2452.89	90.35	2451.23	695908.57	470382.15	32°17'31.788"N	103°49'59.188"W	0.00	
12300.00†	89.586	87.889	9886.38	2552.89	94.04	2551.16	696008.49	470385.83	32°17'31.820"N	103°49'58.024"W	0.00	
12400.00†	89.586	87.889	9887.10	2652.89	97.72	2651.09	696108.41	470389.52	32°17'31.852"N	103°49'56.860"W	0.00	
12500.00†	89.586	87.889	9887.82	2752.89	101.41	2751.02	696208.33	470393.20	32°17'31.883"N	103°49'55.695"W	0.00	
12600.00†	89.586	87.889	9888.54	2852.88	105.09	2850.95	696308.26	470396.88	32°17'31.915"N	103°49'54.531"W	0.00	
12700.00†	89.586	87.889	9889.26	2952.88	108.77	2950.88	696408.18	470400.57	32°17'31.947"N	103°49'53.367"W	0.00	
12800.00†	89.586	87.889	9889.99	3052.88	112.46	3050.81	696508.10	470404.25	32°17'31.979"N	103°49'52.202"W	0.00	
12900.00†	89.586	87.889	9890.71	3152.88	116.14	3150.74	696608.03	470407.93	32°17'32.011"N	103°49'51.038"W	0.00	
13000.00†	89.586	87.889	9891.43	3252.87	119.82	3250.66	696707.95	470411.61	32°17'32.043"N	103°49'49.874"W	0.00	

Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co. of Colorado**	Slot	**No. 20H SHL**
Area	**Eddy County, NM**	Well	**No. 20H**
Field	**(Sandy) Sec 24, T23S, R30E**	Wellbore	**No. 20H PWB**
Facility	**Sandy No. 20H**		

WELLPATH DATA (147 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
13100.00†	89.586	87.889	9892.15	3352.87	123.51	3350.59	696807.87	470415.30	32°17'32.074"N	103°49'48.709"W	0.00	
13200.00†	89.586	87.889	9892.87	3452.87	127.19	3450.52	696907.79	470418.98	32°17'32.106"N	103°49'47.545"W	0.00	
13300.00†	89.586	87.889	9893.59	3552.86	130.87	3550.45	697007.72	470422.66	32°17'32.138"N	103°49'46.381"W	0.00	
13400.00†	89.586	87.889	9894.32	3652.86	134.56	3650.38	697107.64	470426.35	32°17'32.170"N	103°49'45.217"W	0.00	
13500.00†	89.586	87.889	9895.04	3752.86	138.24	3750.31	697207.56	470430.03	32°17'32.202"N	103°49'44.052"W	0.00	
13600.00†	89.586	87.889	9895.76	3852.86	141.92	3850.24	697307.49	470433.71	32°17'32.233"N	103°49'42.888"W	0.00	
13700.00†	89.586	87.889	9896.48	3952.85	145.61	3950.17	697407.41	470437.40	32°17'32.265"N	103°49'41.724"W	0.00	
13800.00†	89.586	87.889	9897.20	4052.85	149.29	4050.10	697507.33	470441.08	32°17'32.297"N	103°49'40.559"W	0.00	
13900.00†	89.586	87.889	9897.93	4152.85	152.97	4150.03	697607.25	470444.76	32°17'32.329"N	103°49'39.395"W	0.00	
14000.00†	89.586	87.889	9898.65	4252.85	156.66	4249.96	697707.18	470448.45	32°17'32.360"N	103°49'38.231"W	0.00	
14100.00†	89.586	87.889	9899.37	4352.84	160.34	4349.89	697807.10	470452.13	32°17'32.392"N	103°49'37.066"W	0.00	
14187.30	89.586	87.889	9900.00[1]	4440.14	163.56	4437.13	697894.33	470455.35	32°17'32.420"N	103°49'36.050"W	0.00	No. 20H PBHL

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No. 20H PBHL	14187.30	9900.00	163.56	4437.13	697894.33	470455.35	**32°17'32.420"N**	**103°49'36.050"W**	point

SURVEY PROGRAM - Ref Wellbore: No. 20H PWB Ref Wellpath: Prelim_2

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3258.00	14187.30	NaviTrak (Standard)		No. 20H PWB

SR & A

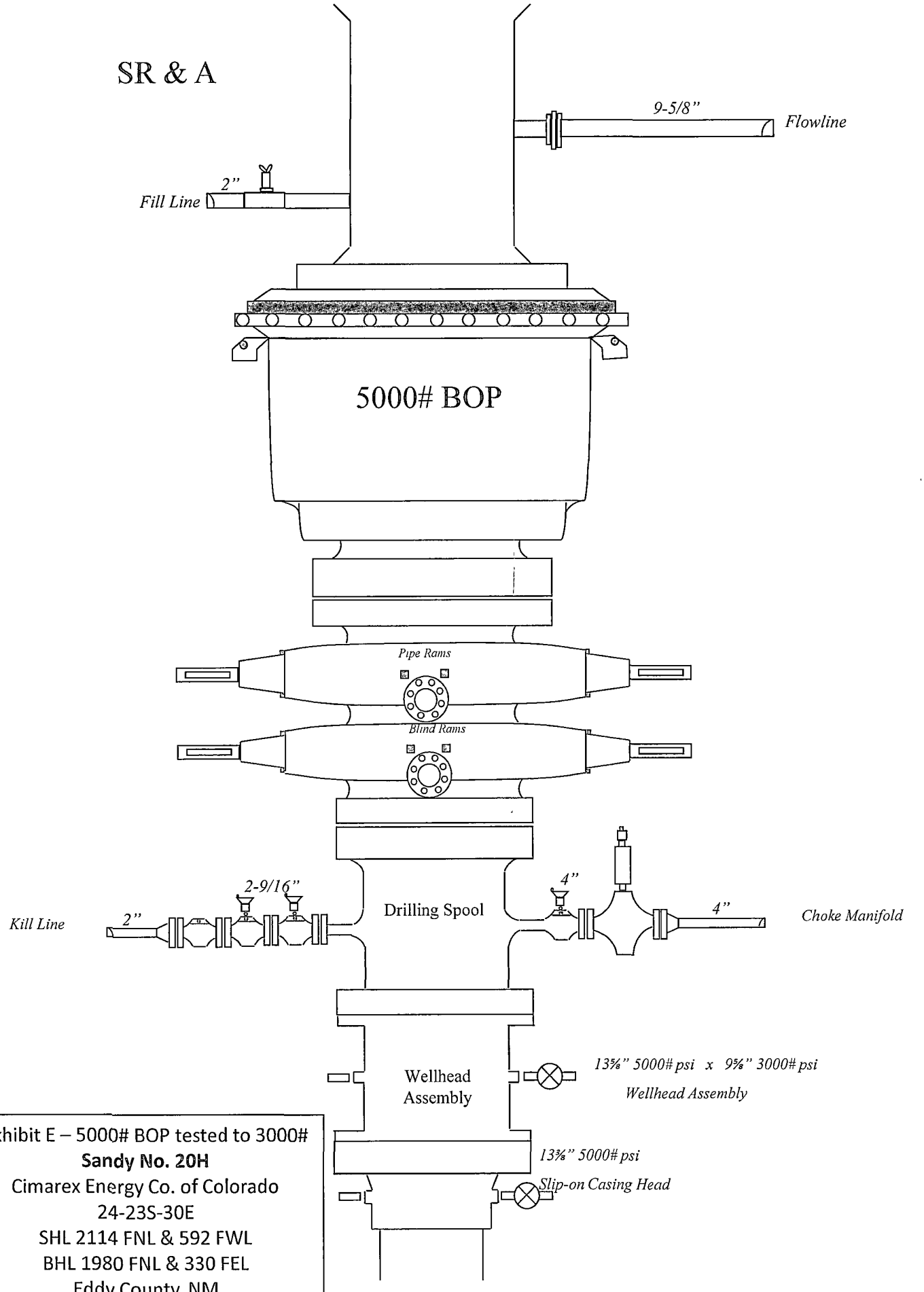
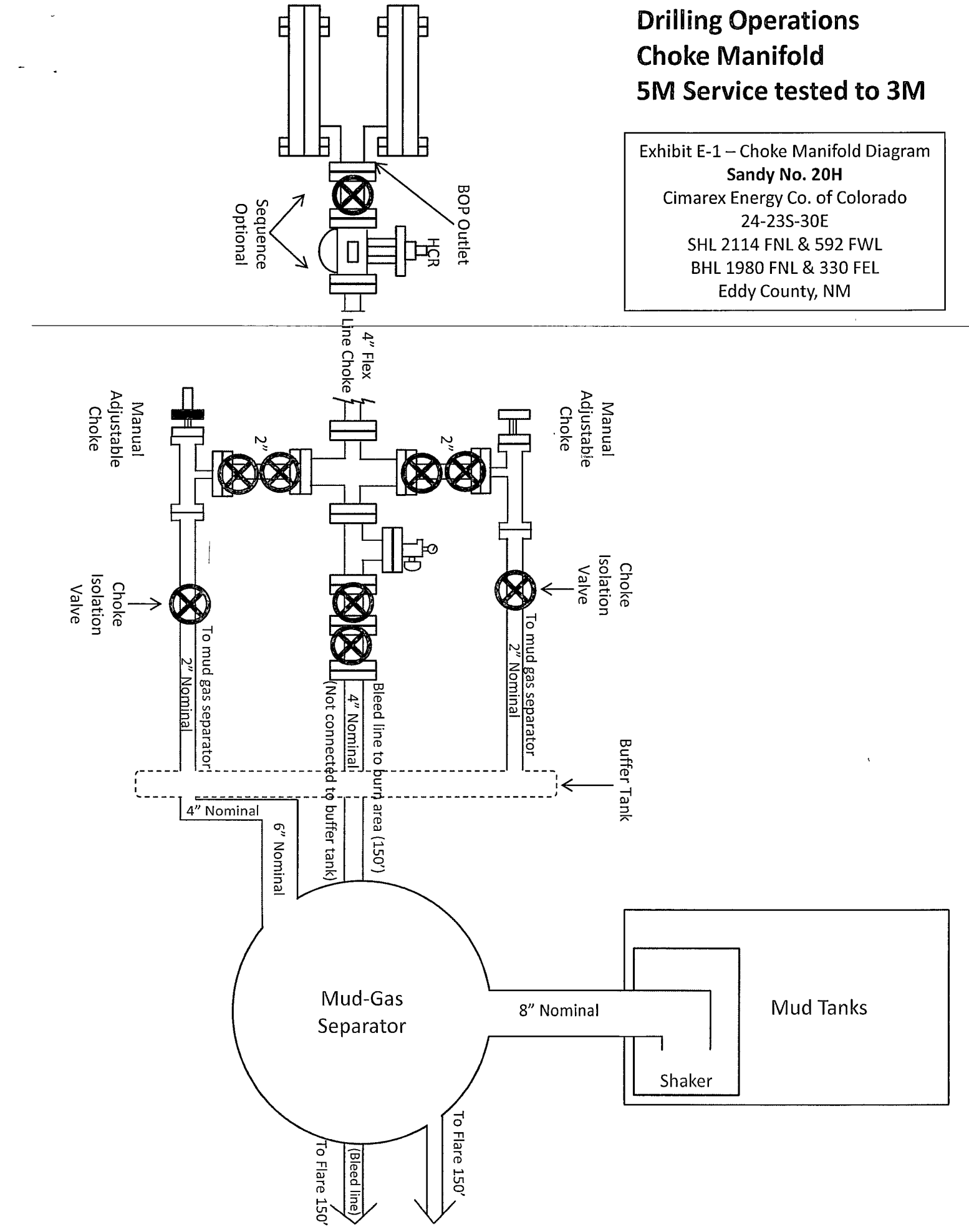


Exhibit E – 5000# BOP tested to 3000#
Sandy No. 20H
Cimarex Energy Co. of Colorado
24-23S-30E
SHL 2114 FNL & 592 FWL
BHL 1980 FNL & 330 FEL
Eddy County, NM

Drilling Operations
Choke Manifold
5M Service tested to 3M

Exhibit E-1 – Choke Manifold Diagram
Sandy No. 20H
Cimarex Energy Co. of Colorado
24-23S-30E
SHL 2114 FNL & 592 FWL
BHL 1980 FNL & 330 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 componets.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 vermculite 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, unibolt 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)

P.O. Box 96558 – 1421 S.E. 29th St. Oklahoma City, OK 73143 * (405) 670-6718 * Fax: (405) 670-6816

MIDWEST

HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
CACTUS DRILLING	RIG#147

HOSE SPECIFICATIONS

Type:	CHOKE & KILL	Length:	35'
I.D.	4" *INCHES*	O.D.	8"

WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
10,000 *PSI*	15,000	

COUPLINGS

Stem Part No.	Ferrule No.
E4.0X64WB	FERRULE-128
Type of Coupling: 4-1/16 10K FLANGE(BX-155)	**Die Size:**

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
15 *MIN.*	0 *PSI*

COMMENTS:
SERIAL#63270

Date:	Tested By:	Approved:
7/14/2010	BOBBY FINK	BRENT BURNETT

Hydrogen Sulfide Drilling Operations Plan
Sandy No. 20H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T23S-R30E, Eddy County, NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:
   A. Characteristics of H_2S
   B. Physical effects and hazards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2 H_2S Detection and Alarm Systems:
   A. H_2S 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 (H_2S 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 H_2S has on tubular goods and other mechanical equipment.

9 If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

H_2S Contingency Plan
Sandy No. 20H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T23S-R30E, Eddy County, NM

Emergency Procedures

In the event of a release of gas containing H_2S, 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 H_2S 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 H_2S, 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 (SO_2). 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 H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	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).

H_2S Contingency Plan Emergency Contacts

Sandy No. 20H

Cimarex Energy Co. of Colorado

Unit E, Section 24

T23S-R30E, Eddy County, NM

Strata Personnel	
Frank Morgan, Drilling Superintendent	575-703-6866
Virgil Smith, Production Superintendent	575-626-0528
Sheriff's Departments	
Eddy County	575-887-1888
Lea County	575-396-3611
New Mexico State Police	**575-392-5588**
Fire Departments	**911**
Carlsbad	575-885-3125
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
Hospitals	**911**
Carlsbad Medical Emergency	575-887-4100
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
Agent Notifications	
Bureau of Land Management	575-393-3612
New Mexico Oil Conservation Division	575-393-6161
Mosaic Potash - Carlsbad	575-887-2871

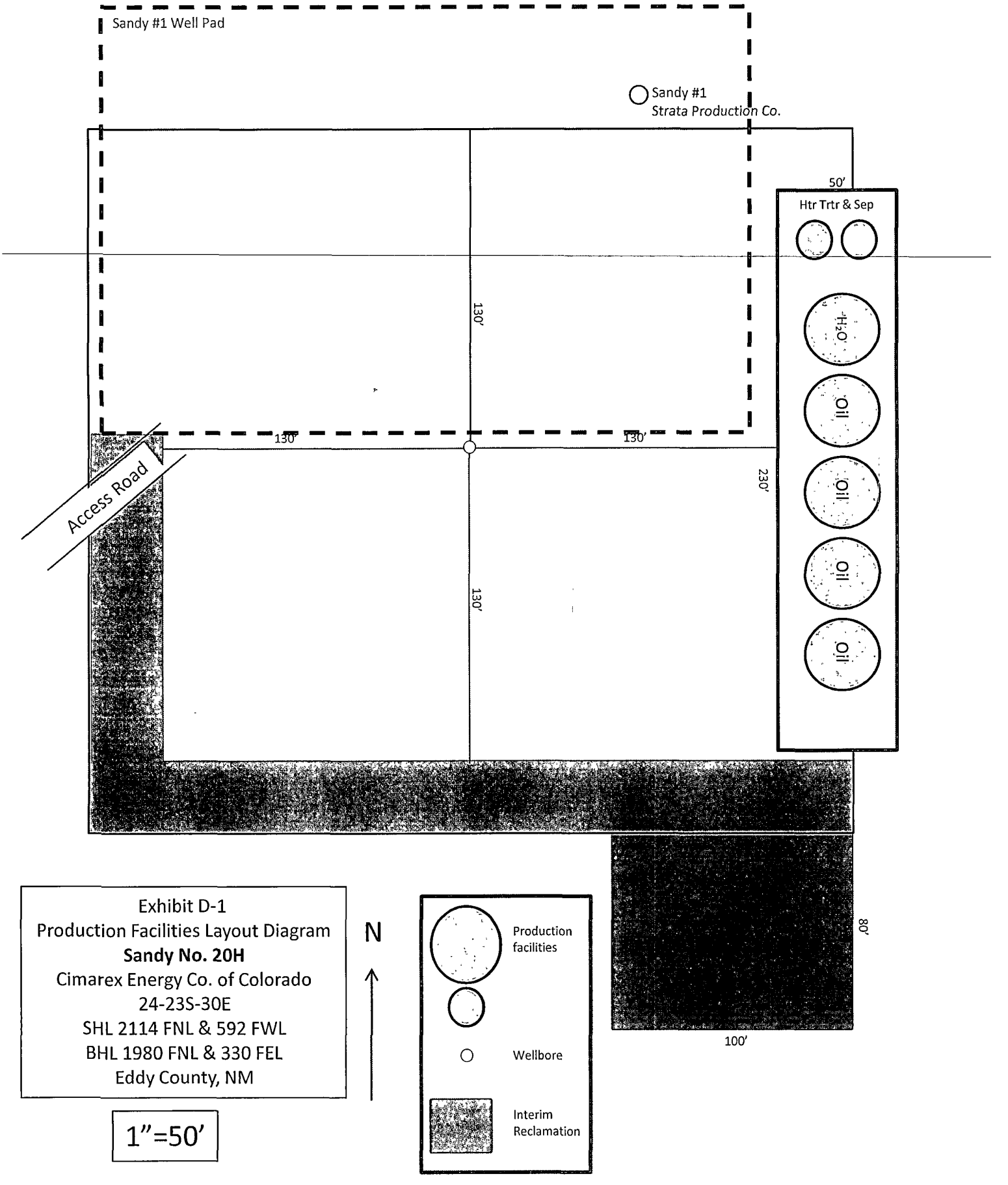


Exhibit D-1
Production Facilities Layout Diagram
Sandy No. 20H
Cimarex Energy Co. of Colorado
24-23S-30E
SHL 2114 FNL & 592 FWL
BHL 1980 FNL & 330 FEL
Eddy County, NM

1"=50'

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Strata Production Company
LEASE NO.:	NMNM114356
WELL NAME & NO.:	Sandy 20H
SURFACE HOLE FOOTAGE:	2114' FNL & 592' FWL
BOTTOM HOLE FOOTAGE	1980' FNL & 330' FEL
LOCATION:	Section 24, T. 23 S., R. 30 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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

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)
Cave and Karst

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

Cave/Karst Surface Mitigation

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

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

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

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

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

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

Cave/Karst Subsurface Mitigation

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

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

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

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

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

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

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

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 4 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 theCarlsbad 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 twenty (20) feet.

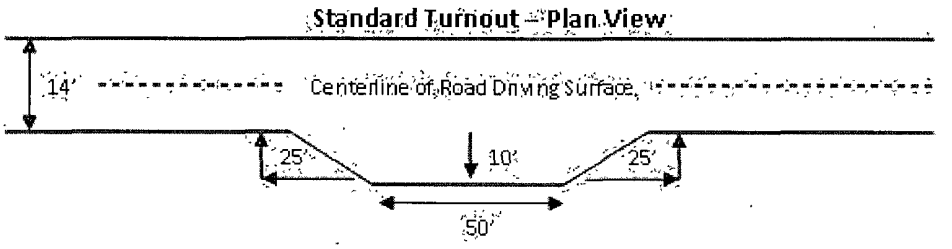
Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

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.

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:

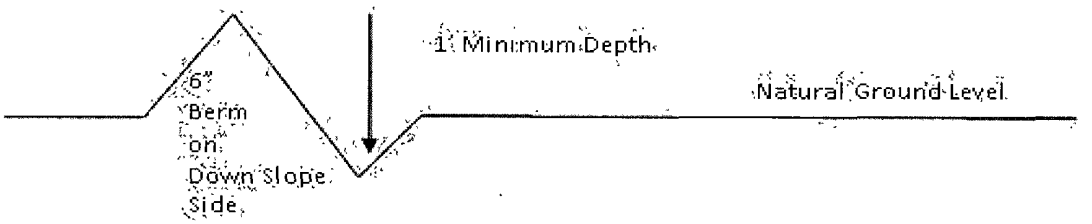


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping 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 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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

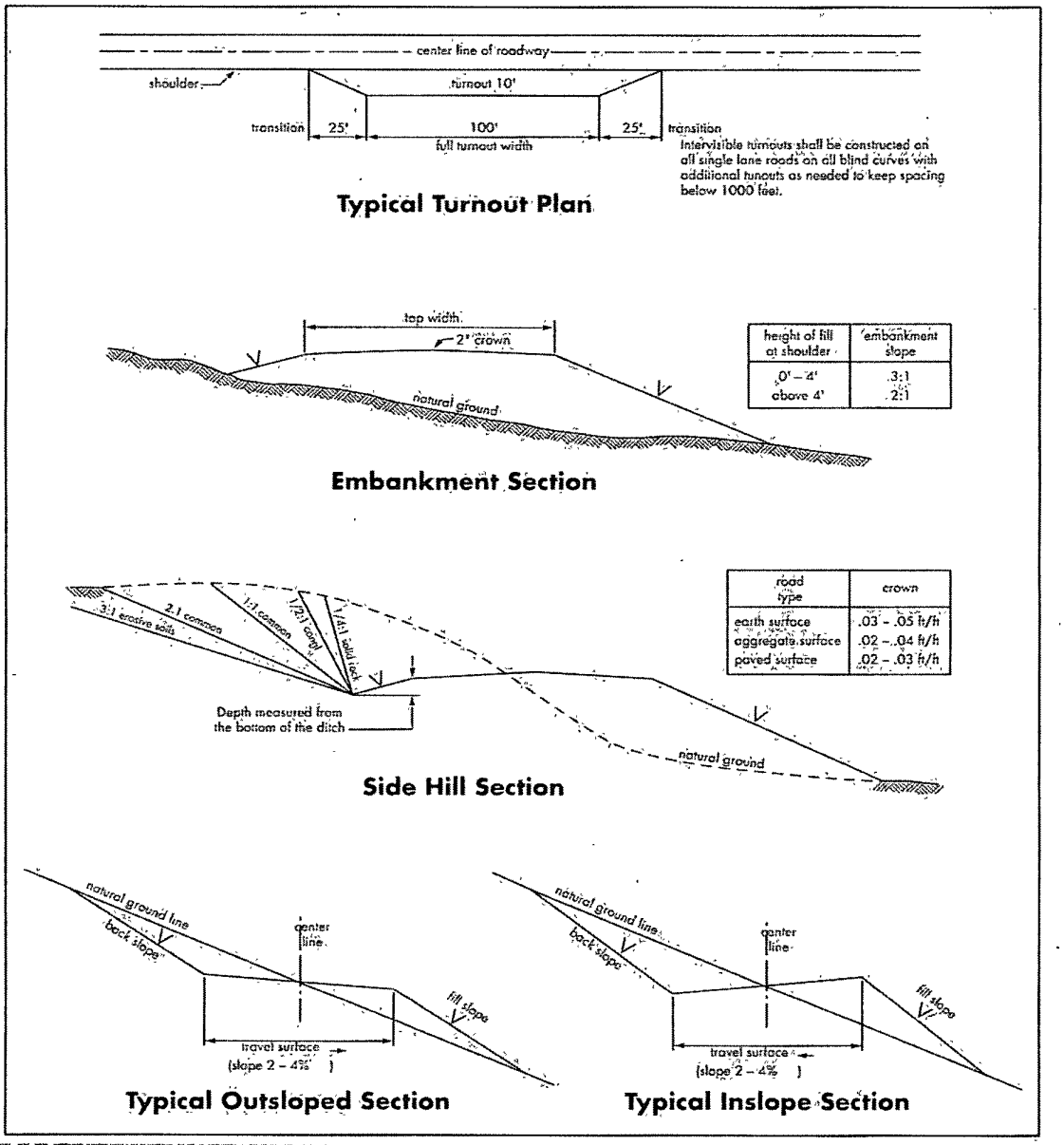
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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. **Due to recent H2S encounters in the salt formation, it is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide prior to drilling out the surface shoe. If Hydrogen Sulfide is encountered, please report measurements 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) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#).

Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

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

Wait on cement (WOC) time prior to drilling out 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.

HIGH CAVE/KARST
R-111-P Potash
Possible lost circulation in the Delaware Mountain Group.

1. The **13-3/8** inch surface casing shall be set at approximately **245** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encounter set casing at least 25 feet above the salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **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 potash and cave/karst.**

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every third joint unless lateral doglegs require greater spacing between centralizers.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

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 from BOP to choke manifold. Check condition of 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 and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review**. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi. **Operator installing a 5M but testing as a 3M.**

   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 potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

    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) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    c. The results of the test shall be reported to the appropriate BLM office.

    d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

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

E. WASTE MATERIAL AND FLUIDS

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

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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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

B. PIPELINES (not applied for in APD)

C. ELECTRIC LINES (not applied for in APD)

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 for LPC Sand/Shinnery 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 of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/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:

Species	lb/acre

Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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

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DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator Cimarex OGRID # 162683
Well Name & # SANDY 20H Surface Type (F) (S) (P)
Location: UL E Sect 24 Twnship 23 s, RNG 30 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd 3/14/2012 C101 reviewed 3/15/2012
B. 1. Check mark, Information is OK on Forms:
OGRID ✓, BONDING ✓, PROP CODE ____, WELL # ____, SIGNATURE ____
2. Inactive Well list as of: 3/14/2012 # wells 1288, # Inactive wells 5
a. District Grant APD but see number of inactive wells:
No letter required ✓; Sent Letter to Operator ____, to Santa Fe ____
3. Additional Bonding as of: 3/14/2012
a. District Denial because operator needs addition bonding:
No Letter required ✓; Sent Letter to Operator ____, To Santa Fe ____
b. District Denial because of Inactive well list and Financial Assurance:
No Letter required ✓; Sent Letter to Operator ____, To Santa Fe ____

C. C102 YES ✓ NO ____, Signature ✓
1. Pool WC; Bone Spring, Code 96053
a. Dedicated acreage ____, What Units ____
b. SUR. Location Standard ____: Non-Standard Location ____
c. Well shares acres: Yes ____, No ____, # of wells ____ plus this well # ____
2. 2nd. Operator in same acreage, Yes ____, No ____
Agreement Letter ____, Disagreement letter ____
3. Intent to Directional Drill Yes ✓, No ____
a. Dedicated acreage 480, What Units S
b. Bottomhole Location Standard ✓, Non-Standard Bottomhole ____
4. Downhole Commingle: Yes ____, No ✓
a. Pool #2 ____, Code ____, Acres ____
Pool #3 ____, Code ____, Acres ____
Pool #4 ____, Code ____, Acres ____
5. POTASH Area Yes ✓, No ____,
D. Blowout Preventer Yes ✓, No ____,
E. H2S Yes ✓, No ____,
F. C144 Pit Registration Yes ✓, No ____,
G. Does APD require Santa Fe Approval:
1. Non-Standard Location: Yes ____, No ✓, NSL # ____
2. Non-Standard Proration: Yes ____, No ✓, NSP # ____
3. Simultaneous Dedication: Yes ____, No ✓, SD # ____
Number of wells ____ Plus # ____
4. Injection order Yes ____, No ✓; PMX # ____ or WFX # ____
5. SWD order Yes ____, NO ✓; SWD # ____
6. DHC from SF ____; DHC-HOB ____; Holding ____

7. OCD Approval Date 3/15/2012 API #30-015-40053
8. Reviewers TCS