

Form 3160-3
(April 2004)

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MAR 14 2011
HOBBSCOCDUNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No. NM-052
6. If Indian, Allottee or Tribe Name
7. If Unit or CA Agreement, Name and No.
8. Lease Name and Well No. Mallon 35 Federal No. 7 H (29029)
9. API Well No. 30-025- 400 86
10. Field and Pool, or Exploratory Quail Ridge; Bone Spring, South (37570)
11. Sec., T. R. M. or Blk. and Survey or Area 35-19S-34E
12. County or Parish Lea
13. State NM

1a. Type of Work: ☒ DRILL ☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Cimarex Energy Co. of Colorado

3a. Address

600 N. Marienfeld St., Ste. 600; Midland, TX 79701

3b. Phone No. (include area code)

432-571-7800

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

At Surface

Unit D 585 FNL & 330 FWL

At Bottom Hole

Unit A 660 FNL & 330 FEL

At proposed prod. Zone

Unit D 585 FNL & 330 FWL

Horizontal Bone Spring test

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

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line if
any)

330

16. No of acres in lease

NM-052 - 1240 acres

17. Spacing Unit dedicated to this well

N2N2 160

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

N/A

19. Proposed Depth

Pilot Hole TVD 11200'

20. BLM/BIA Bond No. on File

NM-2575

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

3720' GR

22. Approximate date work will start*

01.15.11

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:

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

- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator Certification
- 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 12.01.10
Title Manager Operations Administration		
Approved By (Signature) /S/ JEANETTE MARTINEZ	Name (Printed/Typed)	Date MAR 10 2011
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)

CAPTAIN CONTROLLED WATER BASIN

K2 03/17/11

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS

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

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MAR 14 2011
HOBBSUCDState of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

Form C-102

Revised July 16, 2010

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40086	Pool Code 37570	Pool Name Lea; Bone Spring
Property Code 29029	Property Name MALLON "35" FEDERAL	Well Number 7 H
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3720'

Surface Location

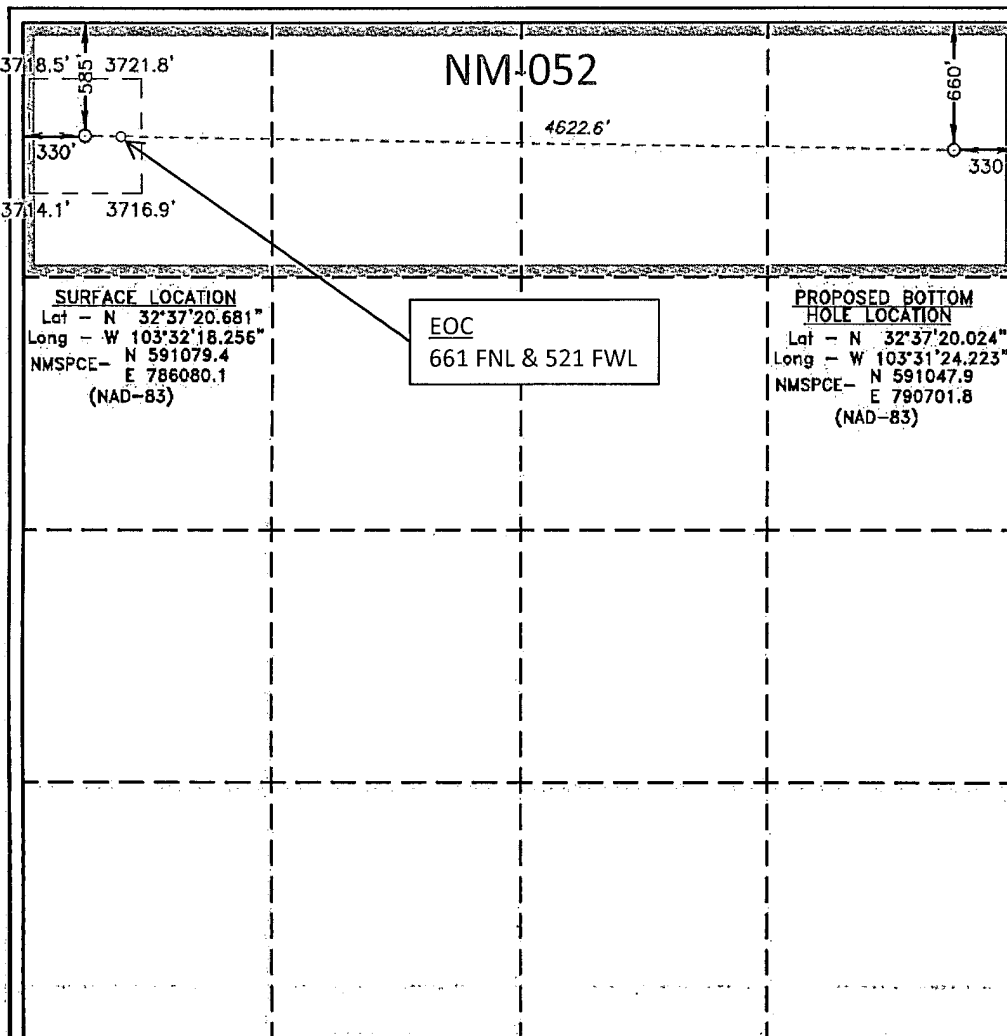
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	19 S	34 E		585	NORTH	330	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	35	19 S	34 E		660	NORTH	330	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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.

Natalie Krueger 11/30/2010
Signature Date

Natalie Krueger

Printed Name

nkrueger@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.

Gary L. Jones SEP 10 2010
Date Surveyed

Gary L. Jones SEP 10 2010
Signature & Seal of Professional Surveyor

Gary L. Jones SEP 10 2010
Certificate No. Gary L. Jones 7977

Gary L. Jones SEP 10 2010
BASIN SURVEYS 23492

Application to Drill
Mallon 35 Federal No. 7
Cimarex Energy Co. of Colorado
Unit D, Section 35
T19S-R34E, Lea County, NM

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

- 1 Location: SHL 585 FNL & 330 FWL
BHL 660 FNL & 330 FEL
- 2 Elevation above sea level: 3720' GR
- 3 Geologic name of surface formation: Quaternary Alluvium Deposits
- 4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5 Proposed drilling depth: MD 15555 TVD 11015 Pilot Hole TVD 11200'
- 6 Estimated tops of geological markers:

Rustler	1200'	Bone Spring	7850'
Yates	3020'	Wolfcamp	11100'
Capitan	3650'	Strawn	12110'
Delaware	5180'	Morrow	12820'
- 7 Possible mineral bearing formation:

Bone Spring	Oil
Delaware	Oil
Yates/7 Rivers	Oil

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 1750' ^{1815'}	8.4 - 8.6	28	NC	FW
1750' to 5500'	10.0	30-32	NC	Brine water
5500' to 15555'	8.4 - 9.5	30-32	NC	FW, brine

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

Drill 8¾" pilot hole to 11200' and log. Set 250 sx Class H cmt plug from 10724'-11200.' Kick off 8¾" lateral @ 10824' and drill to TD @ 15555.' Run 5½" 17# P-110 LTC from 0-15555.'

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9 Casing & Cementing Program:

See
COA

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17½"	0' to 1750'	New 13¾"	54.5#	STC	J-55
Intermediate	12¾"	0' to 5500'	New 9¾"	40#	LTC	N-80
Production	8¾"	0' to 15555'	New 5½"	17#	LTC	P-110

10 Cementing:

Surface 650 sx Premium Plus + 2% CaCl₂ (wt 14.8, yld 1.35)

See
COA

TOC Surface

Intermediate Lead: 415 sx Econocem + 3% Salt + 2% CaCl₂ + 3 lbm/sk Gilsonite (wt 11.7, yld 2.06)

See
COA

Tail: 650 sxs Premium Plus + 1% CaCl₂ (wt 14.8, yld 1.34)

TOC Surface

Production Lead: 500 sx EconoCem + 5# Gilsonite (wt 11.9, yld 2.48)

Tail: 1730 sx Halcem (wt 15.6, yld 1.19)

TOC 5300'

Depth to groundwater is approximately 135' according to the State Engineer. Fresh water zones will be protected by setting 13¾" casing at 1750' and cementing to surface. Hydrocarbon zones will be protected by setting 9¾" casing at 5500' and cementing to surface, and by setting 5½" casing at 15555' and cementing to 5300'.

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

11 Pressure control Equipment:

See COA

Exhibit "E". A 13¾" 5000 PSI working pressure BOP tested to 3000 psi consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head as needed. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP unit will be hydraulically operated. BOP will be nipped up and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the 13¾" casing through the running of production casing, the well will be equipped with a 5000 psi BOP system tested to 3000 psi.

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

Cimarex Energy Co. of Colorado (operator) requests a variance if Cactus 101 (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: 59473

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

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

Application to Drill
Mallon 35 Federal No. 7
Cimarex Energy Co. of Colorado
Unit D, Section 35
T19S-R34E, Lea County, NM

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- 12 Testing, Logging and Coring Program: *See CoA*
- A. Mud logging program: 2 man unit from 3100' to TD
 - B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
 - C. No DSTs or cores are planned at this time.

13 Potential Hazards:

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

Estimated BHP **3000 psi** Estimated BHT **130°**

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

Drilling expected to take 30-35 days

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

15 Other Facets of Operations:

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

Bone Spring pay will be perforated and stimulated.

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



Cimarex Energy Co.

Location: Lea County, NM
Field: (Mallon) Sec 35, T19S, R34E
Facility: Mallon 35 Fed No. 7H

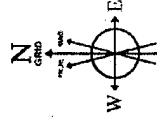
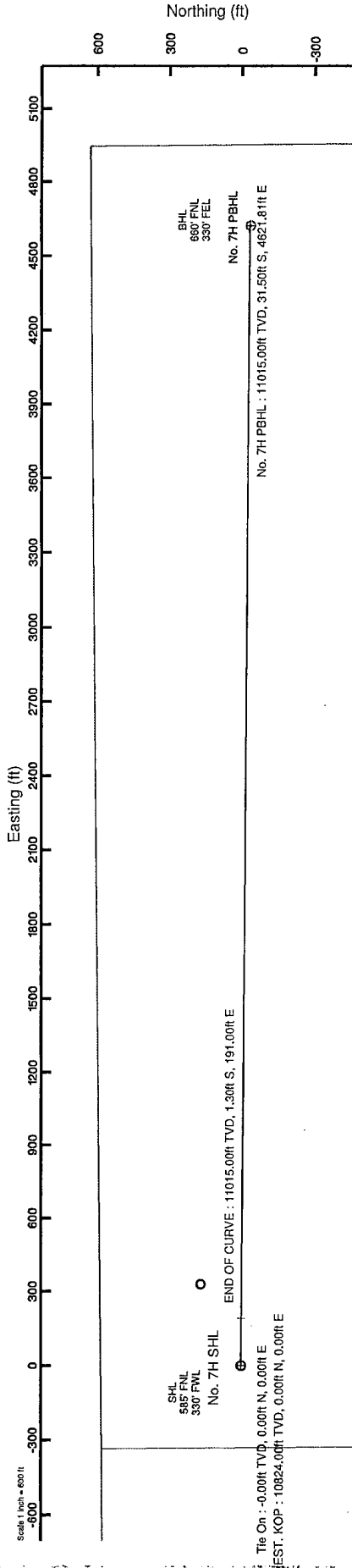


Well Profile Data

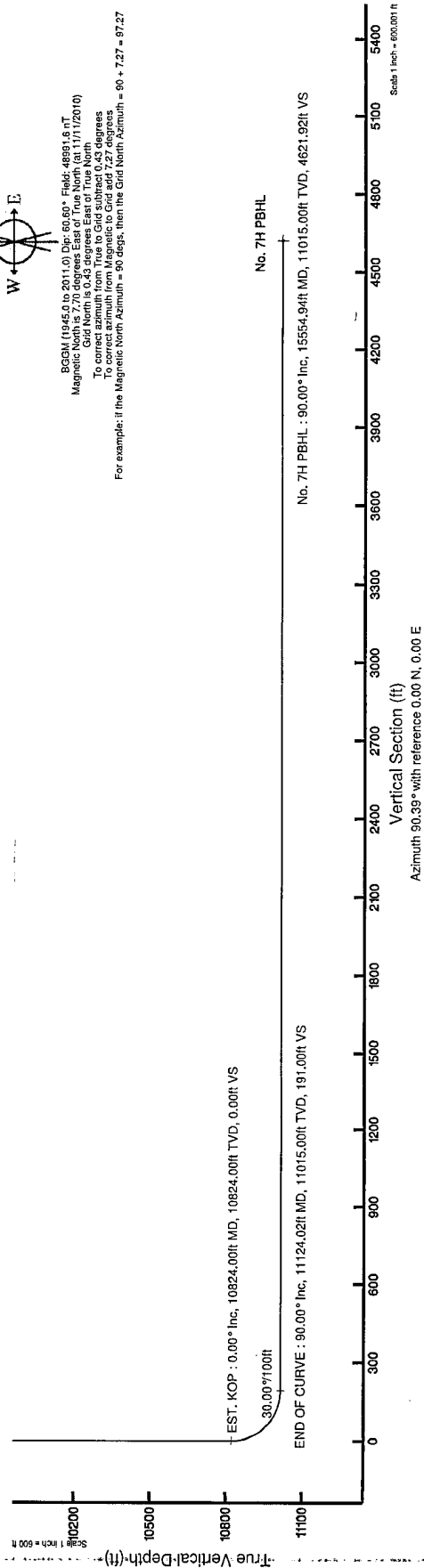
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (ft/100ft)	VS (ft)
Tie On	0.00	0.000	90.391	0.00	0.00	0.00	0.00	0.00
EST. KOP	10824.00	0.000	90.391	10824.00	0.00	0.00	0.00	0.00
END OF CURVE	11124.02	90.000	90.391	11015.00	-1.30	191.00	30.00	191.00
No. 7H PBHL	15554.94	90.000	90.391	11015.00	-31.50	4621.81	0.00	4621.92

Plot reference wellpath is Prefn. 2

Grid System: NAD83 / TM New Mexico State Plane, Eastern Zone (5001), US feet
North Reference: Old north
Scale: True distance
Depths are in feet
Coordinates are in feet referenced to Slot



BGGM (1945.0 to 2011.0) Dip: 60.60° Field: 48991.6 nT
Magnetic North is 7.75 degrees East of True North (at 11/1/2010)
Grid North is 0.43 degrees East of True North (at 11/1/2010)
To correct azimuth from Magnetic to Grid add 7.27 degrees
To correct azimuth from Magnetic to Grid add 7.27 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.27 = 97.27





Planned Wellpath Report

Prelim_2

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
Field	(Mallon) Sec 35, T19S, R34E	Wellbore	No. 7H PWB
Facility	Mallon 35 Fed No. 7H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Gomeoscr
Scale	0.999978	Report Generated	11/11/2010 at 1:52:19 PM
Convergence at slot	0.43° East	Database/Source file	WA Midland/No. 7H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	786080.10	591079.40	32°37'20.681"N	103°32'18.256"W
Facility Reference Pt			786080.10	591079.40	32°37'20.681"N	103°32'18.256"W
Field Reference Pt			786447.20	587045.00	32°36'40.736"N	103°32'14.318"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 7H SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No. 7H SHL (RT) to Mean Sea Level	3720.00ft
Vertical Reference Pt	Rig on No. 7H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 7H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	90.39°



Planned Wellpath Report

Prelim_2
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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
Field	(Mallon) Sec 35, T19S, R34E	Wellbore	No. 7H PWB
Facility	Mallon 35 Fed No. 7H		

WELLPATH DATA (159 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	90.391	0.00	0.00	0.00	0.00	0.00	Tie On
100.00†	0.000	90.391	100.00	0.00	0.00	0.00	0.00	
200.00†	0.000	90.391	200.00	0.00	0.00	0.00	0.00	
300.00†	0.000	90.391	300.00	0.00	0.00	0.00	0.00	
400.00†	0.000	90.391	400.00	0.00	0.00	0.00	0.00	
500.00†	0.000	90.391	500.00	0.00	0.00	0.00	0.00	
600.00†	0.000	90.391	600.00	0.00	0.00	0.00	0.00	
700.00†	0.000	90.391	700.00	0.00	0.00	0.00	0.00	
800.00†	0.000	90.391	800.00	0.00	0.00	0.00	0.00	
900.00†	0.000	90.391	900.00	0.00	0.00	0.00	0.00	
1000.00†	0.000	90.391	1000.00	0.00	0.00	0.00	0.00	
1100.00†	0.000	90.391	1100.00	0.00	0.00	0.00	0.00	
1200.00†	0.000	90.391	1200.00	0.00	0.00	0.00	0.00	
1300.00†	0.000	90.391	1300.00	0.00	0.00	0.00	0.00	
1400.00†	0.000	90.391	1400.00	0.00	0.00	0.00	0.00	
1500.00†	0.000	90.391	1500.00	0.00	0.00	0.00	0.00	
1600.00†	0.000	90.391	1600.00	0.00	0.00	0.00	0.00	
1700.00†	0.000	90.391	1700.00	0.00	0.00	0.00	0.00	
1800.00†	0.000	90.391	1800.00	0.00	0.00	0.00	0.00	
1900.00†	0.000	90.391	1900.00	0.00	0.00	0.00	0.00	
2000.00†	0.000	90.391	2000.00	0.00	0.00	0.00	0.00	
2100.00†	0.000	90.391	2100.00	0.00	0.00	0.00	0.00	
2200.00†	0.000	90.391	2200.00	0.00	0.00	0.00	0.00	
2300.00†	0.000	90.391	2300.00	0.00	0.00	0.00	0.00	
2400.00†	0.000	90.391	2400.00	0.00	0.00	0.00	0.00	
2500.00†	0.000	90.391	2500.00	0.00	0.00	0.00	0.00	
2600.00†	0.000	90.391	2600.00	0.00	0.00	0.00	0.00	
2700.00†	0.000	90.391	2700.00	0.00	0.00	0.00	0.00	
2800.00†	0.000	90.391	2800.00	0.00	0.00	0.00	0.00	
2900.00†	0.000	90.391	2900.00	0.00	0.00	0.00	0.00	
3000.00†	0.000	90.391	3000.00	0.00	0.00	0.00	0.00	
3100.00†	0.000	90.391	3100.00	0.00	0.00	0.00	0.00	
3200.00†	0.000	90.391	3200.00	0.00	0.00	0.00	0.00	
3300.00†	0.000	90.391	3300.00	0.00	0.00	0.00	0.00	
3400.00†	0.000	90.391	3400.00	0.00	0.00	0.00	0.00	
3500.00†	0.000	90.391	3500.00	0.00	0.00	0.00	0.00	
3600.00†	0.000	90.391	3600.00	0.00	0.00	0.00	0.00	
3700.00†	0.000	90.391	3700.00	0.00	0.00	0.00	0.00	
3800.00†	0.000	90.391	3800.00	0.00	0.00	0.00	0.00	
3900.00†	0.000	90.391	3900.00	0.00	0.00	0.00	0.00	
4000.00†	0.000	90.391	4000.00	0.00	0.00	0.00	0.00	
4100.00†	0.000	90.391	4100.00	0.00	0.00	0.00	0.00	
4200.00†	0.000	90.391	4200.00	0.00	0.00	0.00	0.00	
4300.00†	0.000	90.391	4300.00	0.00	0.00	0.00	0.00	
4400.00†	0.000	90.391	4400.00	0.00	0.00	0.00	0.00	



Planned Wellpath Report

Prelim_2

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
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Facility	Mallon 35 Fed No. 7H		

WELLPATH DATA (159 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4500.00†	0.000	90.391	4500.00	0.00	0.00	0.00	0.00	
4600.00†	0.000	90.391	4600.00	0.00	0.00	0.00	0.00	
4700.00†	0.000	90.391	4700.00	0.00	0.00	0.00	0.00	
4800.00†	0.000	90.391	4800.00	0.00	0.00	0.00	0.00	
4900.00†	0.000	90.391	4900.00	0.00	0.00	0.00	0.00	
5000.00†	0.000	90.391	5000.00	0.00	0.00	0.00	0.00	
5100.00†	0.000	90.391	5100.00	0.00	0.00	0.00	0.00	
5200.00†	0.000	90.391	5200.00	0.00	0.00	0.00	0.00	
5300.00†	0.000	90.391	5300.00	0.00	0.00	0.00	0.00	
5400.00†	0.000	90.391	5400.00	0.00	0.00	0.00	0.00	
5500.00†	0.000	90.391	5500.00	0.00	0.00	0.00	0.00	
5600.00†	0.000	90.391	5600.00	0.00	0.00	0.00	0.00	
5700.00†	0.000	90.391	5700.00	0.00	0.00	0.00	0.00	
5800.00†	0.000	90.391	5800.00	0.00	0.00	0.00	0.00	
5900.00†	0.000	90.391	5900.00	0.00	0.00	0.00	0.00	
6000.00†	0.000	90.391	6000.00	0.00	0.00	0.00	0.00	
6100.00†	0.000	90.391	6100.00	0.00	0.00	0.00	0.00	
6200.00†	0.000	90.391	6200.00	0.00	0.00	0.00	0.00	
6300.00†	0.000	90.391	6300.00	0.00	0.00	0.00	0.00	
6400.00†	0.000	90.391	6400.00	0.00	0.00	0.00	0.00	
6500.00†	0.000	90.391	6500.00	0.00	0.00	0.00	0.00	
6600.00†	0.000	90.391	6600.00	0.00	0.00	0.00	0.00	
6700.00†	0.000	90.391	6700.00	0.00	0.00	0.00	0.00	
6800.00†	0.000	90.391	6800.00	0.00	0.00	0.00	0.00	
6900.00†	0.000	90.391	6900.00	0.00	0.00	0.00	0.00	
7000.00†	0.000	90.391	7000.00	0.00	0.00	0.00	0.00	
7100.00†	0.000	90.391	7100.00	0.00	0.00	0.00	0.00	
7200.00†	0.000	90.391	7200.00	0.00	0.00	0.00	0.00	
7300.00†	0.000	90.391	7300.00	0.00	0.00	0.00	0.00	
7400.00†	0.000	90.391	7400.00	0.00	0.00	0.00	0.00	
7500.00†	0.000	90.391	7500.00	0.00	0.00	0.00	0.00	
7600.00†	0.000	90.391	7600.00	0.00	0.00	0.00	0.00	
7700.00†	0.000	90.391	7700.00	0.00	0.00	0.00	0.00	
7800.00†	0.000	90.391	7800.00	0.00	0.00	0.00	0.00	
7900.00†	0.000	90.391	7900.00	0.00	0.00	0.00	0.00	
8000.00†	0.000	90.391	8000.00	0.00	0.00	0.00	0.00	
8100.00†	0.000	90.391	8100.00	0.00	0.00	0.00	0.00	
8200.00†	0.000	90.391	8200.00	0.00	0.00	0.00	0.00	
8300.00†	0.000	90.391	8300.00	0.00	0.00	0.00	0.00	
8400.00†	0.000	90.391	8400.00	0.00	0.00	0.00	0.00	
8500.00†	0.000	90.391	8500.00	0.00	0.00	0.00	0.00	
8600.00†	0.000	90.391	8600.00	0.00	0.00	0.00	0.00	
8700.00†	0.000	90.391	8700.00	0.00	0.00	0.00	0.00	
8800.00†	0.000	90.391	8800.00	0.00	0.00	0.00	0.00	
8900.00†	0.000	90.391	8900.00	0.00	0.00	0.00	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
Field	(Mallon) Sec 35, T19S, R34E	Wellbore	No. 7H PWB
Facility	Mallon 35 Fed No. 7H		

WELLPATH DATA (159 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
9000.00†	0.000	90.391	9000.00	0.00	0.00	0.00	0.00	
9100.00†	0.000	90.391	9100.00	0.00	0.00	0.00	0.00	
9200.00†	0.000	90.391	9200.00	0.00	0.00	0.00	0.00	
9300.00†	0.000	90.391	9300.00	0.00	0.00	0.00	0.00	
9400.00†	0.000	90.391	9400.00	0.00	0.00	0.00	0.00	
9500.00†	0.000	90.391	9500.00	0.00	0.00	0.00	0.00	
9600.00†	0.000	90.391	9600.00	0.00	0.00	0.00	0.00	
9700.00†	0.000	90.391	9700.00	0.00	0.00	0.00	0.00	
9800.00†	0.000	90.391	9800.00	0.00	0.00	0.00	0.00	
9900.00†	0.000	90.391	9900.00	0.00	0.00	0.00	0.00	
10000.00†	0.000	90.391	10000.00	0.00	0.00	0.00	0.00	
10100.00†	0.000	90.391	10100.00	0.00	0.00	0.00	0.00	
10200.00†	0.000	90.391	10200.00	0.00	0.00	0.00	0.00	
10300.00†	0.000	90.391	10300.00	0.00	0.00	0.00	0.00	
10400.00†	0.000	90.391	10400.00	0.00	0.00	0.00	0.00	
10500.00†	0.000	90.391	10500.00	0.00	0.00	0.00	0.00	
10600.00†	0.000	90.391	10600.00	0.00	0.00	0.00	0.00	
10700.00†	0.000	90.391	10700.00	0.00	0.00	0.00	0.00	
10800.00†	0.000	90.391	10800.00	0.00	0.00	0.00	0.00	
10824.00	0.000	90.391	10824.00	0.00	0.00	0.00	0.00	EST. KOP
10900.00†	22.798	90.391	10898.01	14.92	-0.10	14.92	30.00	
11000.00†	52.796	90.391	10976.13	75.51	-0.51	75.51	30.00	
11100.00†	82.794	90.391	11013.49	167.04	-1.14	167.04	30.00	
11124.02	90.000	90.391	11015.00	191.00	-1.30	191.00	30.00	END OF CURVE
11200.00†	90.000	90.391	11015.00	266.98	-1.82	266.97	0.00	
11300.00†	90.000	90.391	11015.00	366.98	-2.50	366.97	0.00	
11400.00†	90.000	90.391	11015.00	466.98	-3.18	466.97	0.00	
11500.00†	90.000	90.391	11015.00	566.98	-3.86	566.96	0.00	
11600.00†	90.000	90.391	11015.00	666.98	-4.55	666.96	0.00	
11700.00†	90.000	90.391	11015.00	766.98	-5.23	766.96	0.00	
11800.00†	90.000	90.391	11015.00	866.98	-5.91	866.96	0.00	
11900.00†	90.000	90.391	11015.00	966.98	-6.59	966.96	0.00	
12000.00†	90.000	90.391	11015.00	1066.98	-7.27	1066.95	0.00	
12100.00†	90.000	90.391	11015.00	1166.98	-7.95	1166.95	0.00	
12200.00†	90.000	90.391	11015.00	1266.98	-8.64	1266.95	0.00	
12300.00†	90.000	90.391	11015.00	1366.98	-9.32	1366.95	0.00	
12400.00†	90.000	90.391	11015.00	1466.98	-10.00	1466.94	0.00	
12500.00†	90.000	90.391	11015.00	1566.98	-10.68	1566.94	0.00	
12600.00†	90.000	90.391	11015.00	1666.98	-11.36	1666.94	0.00	
12700.00†	90.000	90.391	11015.00	1766.98	-12.04	1766.94	0.00	
12800.00†	90.000	90.391	11015.00	1866.98	-12.72	1866.93	0.00	
12900.00†	90.000	90.391	11015.00	1966.98	-13.41	1966.93	0.00	
13000.00†	90.000	90.391	11015.00	2066.98	-14.09	2066.93	0.00	
13100.00†	90.000	90.391	11015.00	2166.98	-14.77	2166.93	0.00	
13200.00†	90.000	90.391	11015.00	2266.98	-15.45	2266.93	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 7H SHL
Area	Lea County, NM	Well	No. 7H
Field	(Mallon) Sec 35, T19S, R34E	Wellbore	No. 7H PWB
Facility	Mallon 35 Fed No. 7H		

WELLPATH DATA (159 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
13300.00†	90.000	90.391	11015.00	2366.98	-16.13	2366.92	0.00	
13400.00†	90.000	90.391	11015.00	2466.98	-16.81	2466.92	0.00	
13500.00†	90.000	90.391	11015.00	2566.98	-17.50	2566.92	0.00	
13600.00†	90.000	90.391	11015.00	2666.98	-18.18	2666.92	0.00	
13700.00†	90.000	90.391	11015.00	2766.98	-18.86	2766.91	0.00	
13800.00†	90.000	90.391	11015.00	2866.98	-19.54	2866.91	0.00	
13900.00†	90.000	90.391	11015.00	2966.98	-20.22	2966.91	0.00	
14000.00†	90.000	90.391	11015.00	3066.98	-20.90	3066.91	0.00	
14100.00†	90.000	90.391	11015.00	3166.98	-21.58	3166.90	0.00	
14200.00†	90.000	90.391	11015.00	3266.98	-22.27	3266.90	0.00	
14300.00†	90.000	90.391	11015.00	3366.98	-22.95	3366.90	0.00	
14400.00†	90.000	90.391	11015.00	3466.98	-23.63	3466.90	0.00	
14500.00†	90.000	90.391	11015.00	3566.98	-24.31	3566.90	0.00	
14600.00†	90.000	90.391	11015.00	3666.98	-24.99	3666.89	0.00	
14700.00†	90.000	90.391	11015.00	3766.98	-25.67	3766.89	0.00	
14800.00†	90.000	90.391	11015.00	3866.98	-26.36	3866.89	0.00	
14900.00†	90.000	90.391	11015.00	3966.98	-27.04	3966.89	0.00	
15000.00†	90.000	90.391	11015.00	4066.98	-27.72	4066.88	0.00	
15100.00†	90.000	90.391	11015.00	4166.98	-28.40	4166.88	0.00	
15200.00†	90.000	90.391	11015.00	4266.98	-29.08	4266.88	0.00	
15300.00†	90.000	90.391	11015.00	4366.98	-29.76	4366.88	0.00	
15400.00†	90.000	90.391	11015.00	4466.98	-30.44	4466.87	0.00	
15500.00†	90.000	90.391	11015.00	4566.98	-31.13	4566.87	0.00	
15554.94	90.000	90.391	11015.00	4621.92	-31.50	4621.81	0.00	No. 7H PBHL

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 7H PBHL	15554.94	11015.00	-31.50	4621.81	790701.80	591047.90	32°37'20.024"N	103°31'24.223"W	point

SURVEY PROGRAM Ref Wellbore: No. 7H PWB Ref Wellpath: Prelim_2

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	15554.94	NaviTrak (Standard)		No. 7H PWB

Cactus 101

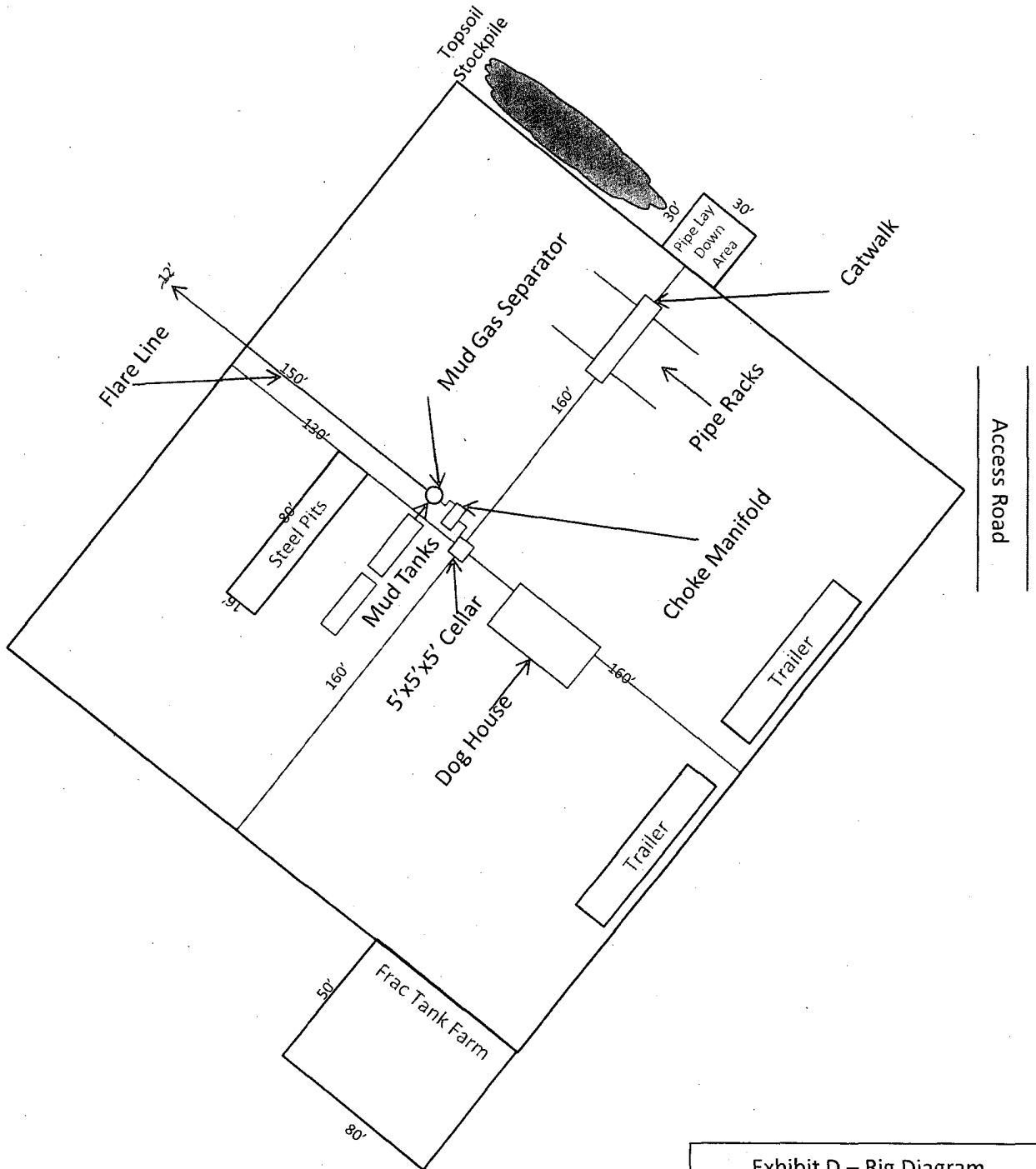


Exhibit D – Rig Diagram
Mallon 35 Federal No. 7
 Cimarex Energy Co. of Colorado
 35-19S-34E
 SHL 585 FNL & 330 FWL
 BHL 660 FNL & 330 FEL
 Lea County, NM

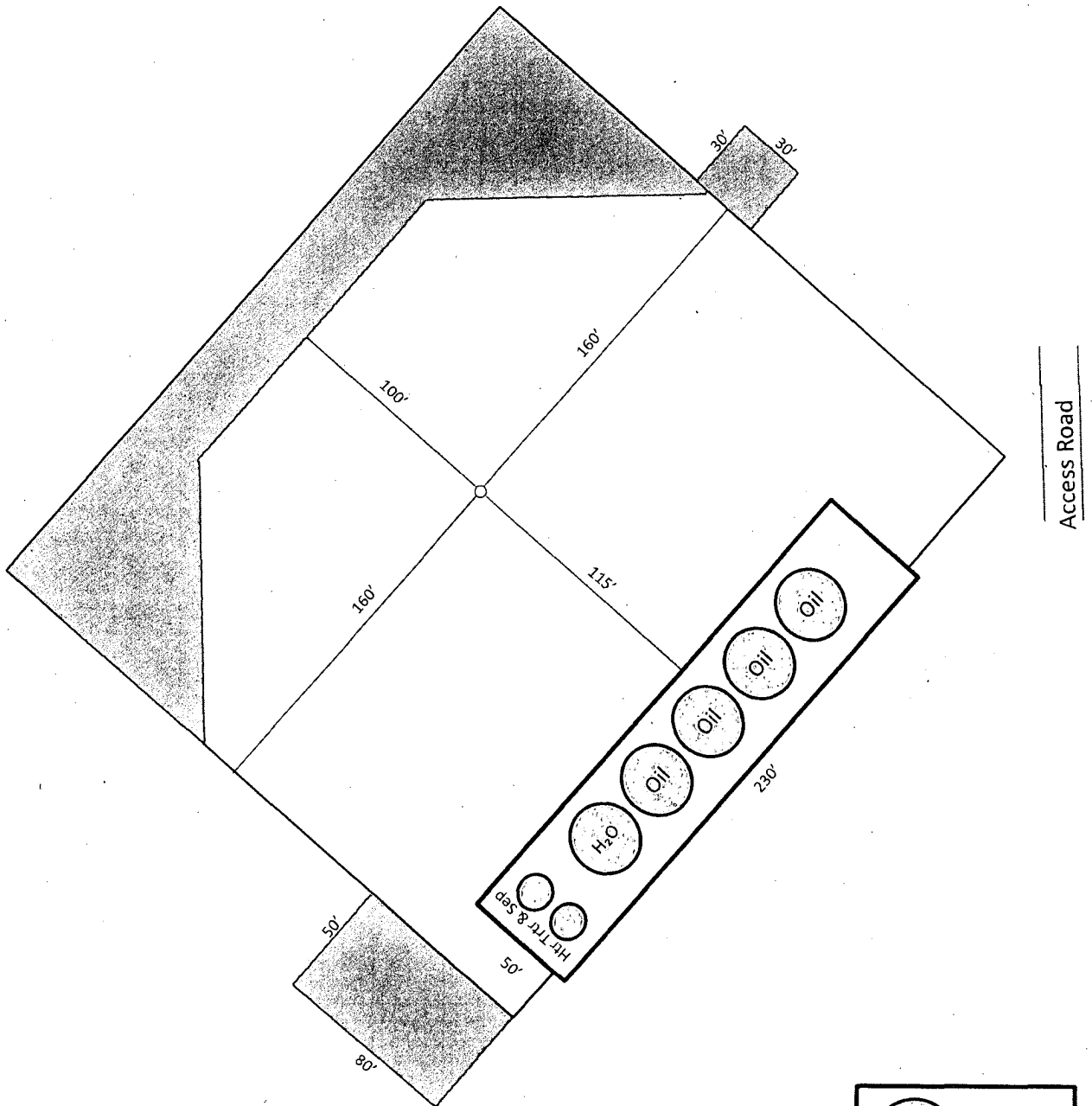
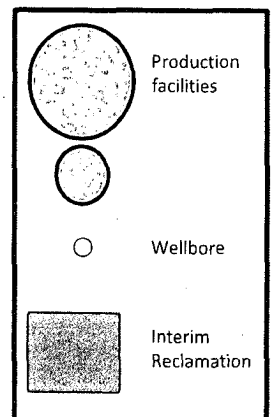


Exhibit D-1
 Production Facilities Layout Diagram
Mallon 35 Federal No. 7
 Cimarex Energy Co. of Colorado
 35-19S-34E
 SHL 585 FNL & 330 FWL
 BHL 660 FNL & 330 FEL
 Lea County, NM



1"=50'

SR & A

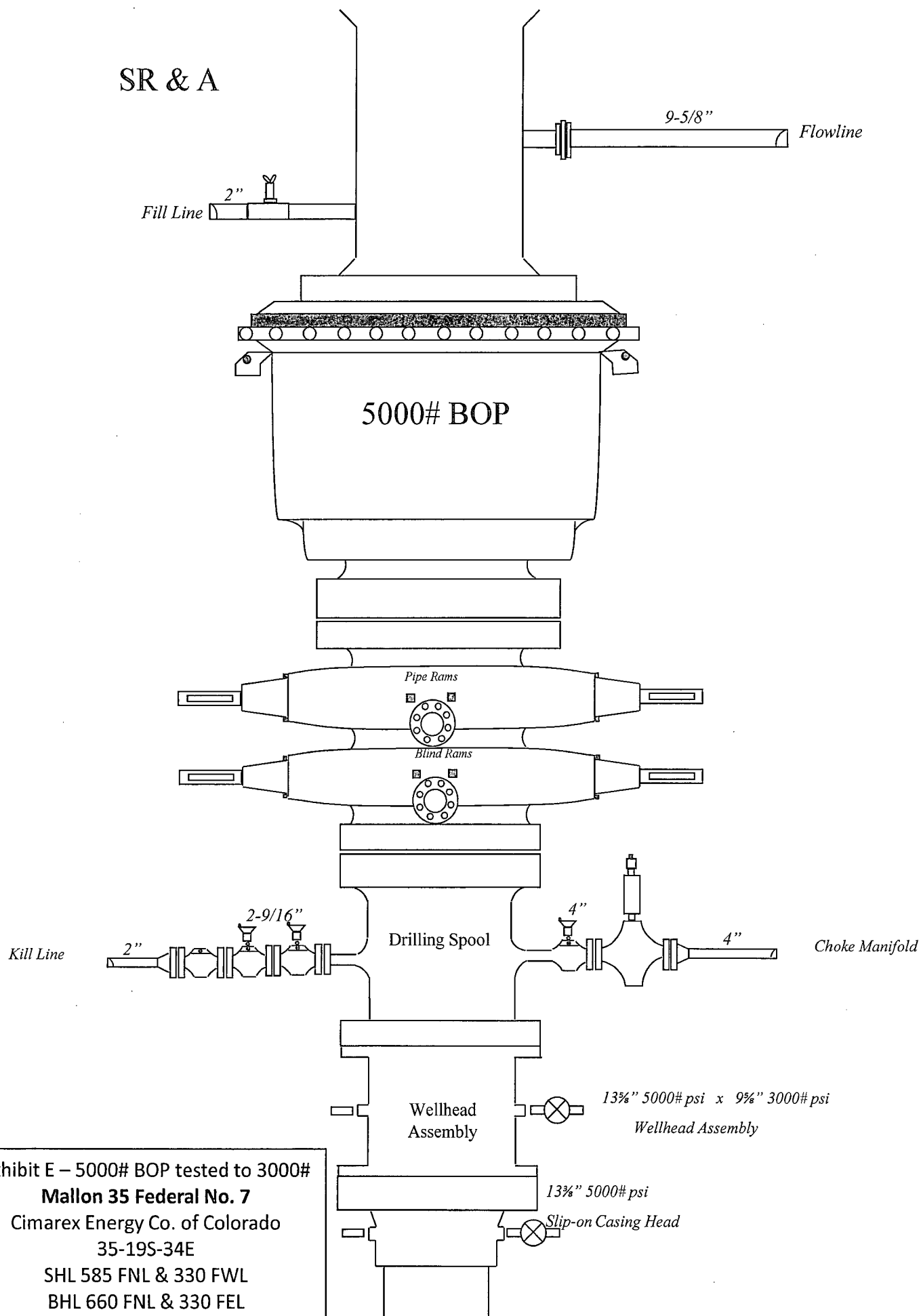


Exhibit E – 5000# BOP tested to 3000#

Mallon 35 Federal No. 7

Cimarex Energy Co. of Colorado

35-19S-34E

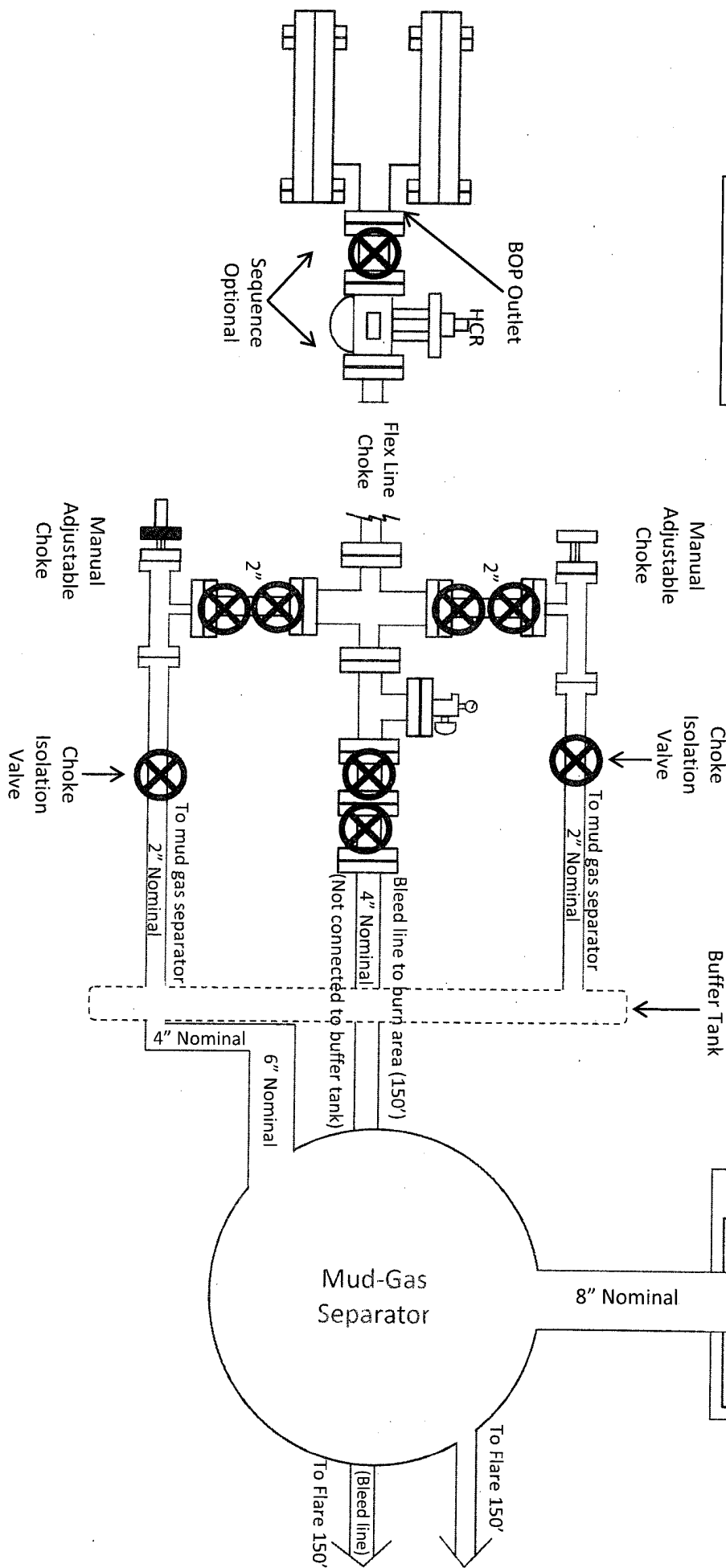
SHL 585 FNL & 330 FWL

BHL 660 FNL & 330 FEL

Lea County, NM

Drilling Operations
Choke Manifold
5M Service tested to 3M

Exhibit E-1 – Choke Manifold Diagram
Mallon 35 Federal No. 7
Cimarex Energy Co. of Colorado
35-19S-34E
SHL 585 FNL & 330 FWL
BHL 660 FNL & 330 FEL
Lea County, NM



Cactus Rig 101
Serial # 59473



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

INTERNAL HYDROSTATIC TEST REPORT			
Customer: CACTUS		P.O. Number: Rig#101 Asset#M5358	
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#59473 Asset#M5358 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: 5/19/2010	Tested By: BOBBY FINK		Approved: MENDI JACKSON