

HOBBS OCD

13-954

JAN 31 2014

Form 3160-3
(March 2012)

RECEIVED

OCD Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SHL: Fee; BHL: NM002127A

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.
Lynch 35 Fed Com #3H

9. API Well No.

10. Field and Pool, or Exploratory
Wildcat Bone Spring

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

35, 20S, 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.

3a. Address

600 N. Marienfield St. Ste. 600 Midland Tx 79071

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 350 FSL & 2580 FWL

At proposed prod. Zone 330 FNL & 1980 FWL

Bone Spring

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

17 miles NE from Monument NM

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

350'

16. No of acres in lease

Fee=40 acres
NM002127A=120 acres

17. Spacing Unit dedicated to this well

160

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

4683' from #2

19. Proposed Depth

Pilot Hole TD: N/A

15,681 MD

11,300 TVD

20. BLM/BIA Bond No. on File

NM2575; NMB000835

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

3803 GR

22. Approximate date work will start*

11/15/13

23. Estimated duration

35 days

24. Attachments

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

1. Well plat certified by a registered surveyor

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)

Terri Stathem

Date

7/3/13

Title

Regulatory Compliance /s/Aden L. Seidlitz

Approved By (Signature)

Name (Printed/Typed)

Date

JAN 24 2014

Title

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.

(Continued on page 2)

CAPITAN CONTROLLED WATER BASIN

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

*(Instructions on page 2)

Kc
02/03/14

FEB 04 2014

7m

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Operator - Land Owner Agreement

Company: Cimarex Energy Co.

Proposed Well: Lynch 35 Federal Com #3H

Federal Lease Number: NMNM002127A

Please be advised that Cimarex Energy Co. has an agreement with the surface owner, listed below, concerning entry and surface restoration after completion of drilling operations at the above described well.

Mr. Danny Berry
Berry Ranch, Box 160
Eunice, NM 88231
575-369-5266

After abandonment of the well, all pits will be filled and levelled and all equipment and trash will be removed from the well site. No other requirements were made concerning restoration of the well site.

7-3-2013

Date


Signature Terri Stathem

Application to Drill
Lynch 35 Fed Com #3H
 Cimarex Energy Co.
 UL: N, Sec. 35, 20S, 34E
 Lea Co., 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 350 FSL & 2580 FWL
 BHL 330 FNL & 1980 FWL
2. **Elevation Above Sea Level:** 3,803' 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:** 15,681 MD 11,300 TVD Pilot Hole TD: N/A
6. **Estimated Tops of Geological Markers:**

Formation	Est Top	Bearing
Rustler	1650	N/A
Salt	1780	N/A
Tansill	3360	N/A
Capitan	3875	N/A
Cherry Canyon	5750	N/A
Bone Spring	8600	Hydrocarbons
Avalon Shale	9000	Hydrocarbons
1st BSS	9700	Hydrocarbons
2nd BSS	10300	Hydrocarbons
3rd Carbonate	10750	N/A
3rd BSS	11100	Hydrocarbons
3rd BS 'C' SS	11210	Hydrocarbons
Wolfcamp	11320	N/A

7. **Possible Mineral Bearing Formation:** Shown above

7A. **OSE Ground Water Estimated Depth:** 50'

8. **Casing Program:**

See COA

Name	Casing Depth From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Open Hole Size (inches)	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	BHP (psig)	Anticipated Mud Weight (ppg)	Collapse SF at Full Evacuation (1.125)	Collapse SF at 1/3 Evacuation (1.125)	Burst SF (1.125)	Cumulative Air Weight	Cumulative Buoyed Weight (lbs)	Buoyant Tension SF (1.8)
Surface	0	1780	1780	17 1/2	13-3/8"	54.50	J-55	ST&C	New	760	8.6	1.49		3.60	92,650	80,485	6.39
Intermediate	0	5700	5700	12 1/4	9-5/8"	40.00	N-80	LT&C	New	2964	10.0		1.58	1.94	228,000	193,191	3.81
Production	0	10772	10772	8 3/4	5-1/2"	17.00	P-110	LT&C	New	5041	9.0	1.48		2.11	192,100	165,704	2.69
Production	10772	15681	11300	8 3/4	5-1/2"	17.00	P-110	BT&C	New	5288	9.0	1.41		2.01	8,976	7,743	70.52

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 Cimarex Energy Co.
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 Lea Co., NM

8A. Casing Design and Casing Loading Assumptions:

Surface	Tension	A 1.8 design factor with effects of buoyancy: 8.60 ppg.
	Collapse	A 1.125 design factor with full internal evacuation and a collapse force equal to a 8.60 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.
Intermediate	Tension	A 1.8 design factor with effects of buoyancy: 10.00 ppg.
	Collapse	A 1.125 design factor evacuated 1/3 TVD of next casing string with a collapse force equal to a 10.00 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.
Production	Tension	A 1.8 design factor with effects of buoyancy: 9.00 ppg.
	Collapse	A 1.125 design factor with full internal evacuation of next casing string with a collapse force equal to a 9.00 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.

9. Cementing Program:

Casing Type	Type	Sacks	Yield	Weight	Cubic Feet	Cement Blend
Surface <i>13 3/8</i>	Lead	1080	1.75	13.50		1889 Class C + Bentonite + Calcium Chloride + LCM, 8.829 gps water
	Tail	221	1.34	14.80		295 Class C + LCM, 6.32 gps water
	TOC: 0		85% Excess			Centralizers per Onshore Order 2.III.B.1f
Intermediate <i>9 5/8</i>	Lead	1200	1.88	12.90		2256 35:65 (poz/C) + Salt + Bentonite + LCM + retarder, 9.65 gps water
	Tail	292	1.34	14.80		391 Class C + retarder + LCM, 6.32 gps water
	TOC: 0		81% Excess			
Production <i>5 1/2</i>	Lead	1209	2.40	11.90		2900 35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder, 13.80 gps water
	Tail	1378	1.24	14.50		1708 50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder, 5.55 gps water
	TOC: 0		25% Excess			No centralizers planned in the lateral section. 1 every jt from EOC to KOP. 1 every 4th joint from KOP to 500' inside previous casing.

Cement volumes will be adjusted depending on hole size

9a. Proposed Drilling Plan:

Pilot Hole TD: No Pilot KOP: 10,772' EOC: 11,517'

Set Surface and Intermediate casing strings. Drill production hole to KOP. Continue drilling lateral through the curve to TD. Run prod casing & cement.

10. Pressure Control Equipment:

Exhibit "E-1". A BOP consisting of two rams with blind rams and pipe rams, and one annular preventer. Below the surface casing, a 2M system will be used. Below the intermediate casing, a 3M system will be used. See attachments for BOP and choke manifold diagrams. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A Rotating head may be installed 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 and associated equipment will be installed, used, maintained, and tested in a manner necessary to assure well control and shall be in place and operational prior to drilling the surface casing shoe. The Annular Preventer shall be functioned at least weekly. The pipe and blind rams will be operated each trip. No abnormal pressure or temperature is expected while drilling.

BOPS will be tested by an independent service company. The ram preventers, choke manifold, and safety valves will be tested as follows: On the surface casing, pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate casing, pressure tests will be made to 250 psi low and 3000 psi high.

The Annular Preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 low and 1500 high on the intermediate casing.

See COA
 Cimarex Energy Co. of Colorado requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (please see Exhibit F, F-1, F-2, F-3). The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

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Lea Co., NM

See COA

11. Proposed Mud Circulating System:

Depth	Mud Weight	Visc	Fluid Loss	Type Mud
0' to 1700' 1825'		8.60 28	NC	FW Spud Mud
1700' to 5450' 5700'		10.00 30-32	NC	Brine Water
5450' to 15681'		9.00 30-32	NC	FW/Cut 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.

The Mud Monitoring System is an electronic Pason System satisfying requirements of Onshore Order 1.

12. Testing, Logging and Coring Program:

- A. Mud logging program: 2 man unit from 5450 to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / GR -- Inter. Csg to TD
CNL / GR -- Surf to Inter. Csg
- C. No DSTs or cores are planned at this time
- D. CBL w/ CCL from as far as gravity will let it fall to TOC

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: 5085 psi

Estimated BHT: 171°

14. Construction and Drilling:

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

Drilling expected to take: 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:

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

Bone Spring pay will be perforated and stimulated.

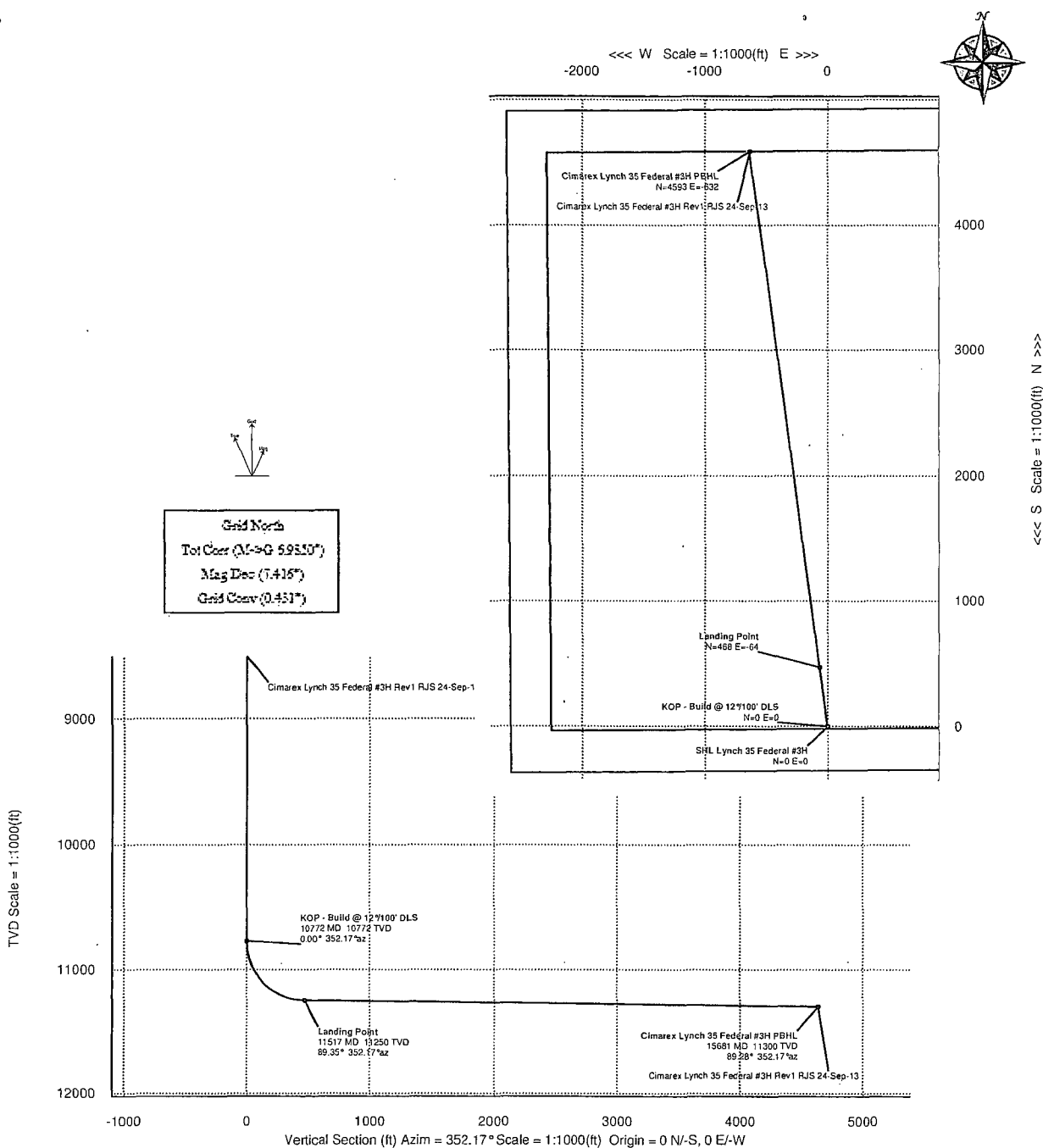
The proposed well will be tested and potentialized as **Oil**



Cimarex

PATHFINDER
 A Schlumberger Company

WELL	Lynch 35 Federal #3H		FIELD	NM Lea County		STRUCTURE	TBD	
Magnetic Parameters Model: BGDH 2013	Dip: 60.455° Mag Dec: 7.416°	Date: September 24, 2013 FS: 456c DIT	Surface Location Lat: N 33 31 23.890 Lon: W 103 31 52.090	Northings: 955035.98 NUTS Easting: 788589.80 NUTS	Grid Center: 0.431° Scale Fact: 0.9997940	Miscellaneous Site: Lynch 35 Federal #3H Plan: Rev1 RJS 24-Sep-13	TVD Ref: Ground Line (38028 above MSL) Srvy Date: September 24, 2013	



Critical Points

Critical Point MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Marker	0.00	0.00	352.17	0.00	0.00	0.00	0.00
ModLine	0.00	0.00	352.17	0.00	0.00	0.00	0.00
SHL Lynch 35 Federal #3H	0.00	0.00	352.17	0.00	0.00	0.00	0.00
KOP - Build @ 12°/100' DLS	10772.00	0.00	352.17	10772.00	0.00	0.00	0.00
Landing Point	11517.42	89.35	352.17	11250.00	472.57	468.16	-64.42
Cimarex Lynch 35 Federal #3H PPHL	15680.92	89.28	352.17	11300.00	4635.76	4592.51	-631.81
Cimarex Lynch 35 Federal #3H Rev1 RJS 24-Sep-13							0.00



Cimarex Lynch 35 Federal #3H Rev1 RJS 24-Sep-13 Proposal Report 100'
Interpolated
 (Non-Def Plan)



Report Date: September 24, 2013 - 02:59 PM
 Client: Cimarex
 Field: NM Lea County (NAD 83)
 Structure / Slot: TBD / Cimarex Lynch 35 Federal #3H
 Well: Cimarex Lynch 35 Federal #3H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Cimarex Lynch 35 Federal #3H Rev1 RJS 24-Sep-13
 Survey Date: September 24, 2013
 Tort / AHD / DDI / ERD Ratio: 89.411 ° / 4635.762 ft / 5.760 / 0.410
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 31' 23.89008", W 103° 31' 52.08975"
 Location Grid N/E Y/X: N 555038.900 ftUS, E 788589.800 ftUS
 CRS Grid Convergence Angle: 0.4313 °
 Grid Scale Factor: 0.9999791

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 352.167 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: Ground Level
 TVD Reference Elevation: 3803.000 ft above MSL
 Seabed / Ground Elevation: 3803.000 ft above MSL
 Magnetic Declination: 7.416 °
 Total Gravity Field Strength: 998.4739mgn (9.80665 Based)
 Total Magnetic Field Strength: 48560.033 nT
 Magnetic Dip Angle: 60.405 °
 Declination Date: September 24, 2013
 Magnetic Declination Model: BGGM 2013
 North Reference: Grid North
 Grid Convergence Used: 0.4313 °

Total Corr Mag North->Grid North: 6.9850 °

Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
SHL Lynch 35 Federal #3H	0.00	0.00	352.17	0.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	N/A
	100.00	0.00	352.17	100.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	200.00	0.00	352.17	200.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	300.00	0.00	352.17	300.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	400.00	0.00	352.17	400.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	500.00	0.00	352.17	500.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	600.00	0.00	352.17	600.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	700.00	0.00	352.17	700.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	800.00	0.00	352.17	800.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	900.00	0.00	352.17	900.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1000.00	0.00	352.17	1000.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1100.00	0.00	352.17	1100.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	-0.00	0.00
	1200.00	0.00	352.17	1200.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1300.00	0.00	352.17	1300.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1400.00	0.00	352.17	1400.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1500.00	0.00	352.17	1500.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1600.00	0.00	352.17	1600.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1700.00	0.00	352.17	1700.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1800.00	0.00	352.17	1800.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	1900.00	0.00	352.17	1900.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2000.00	0.00	352.17	2000.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2100.00	0.00	352.17	2100.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2200.00	0.00	352.17	2200.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2300.00	0.00	352.17	2300.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2400.00	0.00	352.17	2400.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2500.00	0.00	352.17	2500.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2600.00	0.00	352.17	2600.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2700.00	0.00	352.17	2700.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2800.00	0.00	352.17	2800.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	2900.00	0.00	352.17	2900.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00

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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS ("/100ft)
	8500.00	0.00	352.17	8500.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	8600.00	0.00	352.17	8600.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	8700.00	0.00	352.17	8700.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	8800.00	0.00	352.17	8800.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	8900.00	0.00	352.17	8900.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9000.00	0.00	352.17	9000.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9100.00	0.00	352.17	9100.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9200.00	0.00	352.17	9200.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9300.00	0.00	352.17	9300.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9400.00	0.00	352.17	9400.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9500.00	0.00	352.17	9500.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9600.00	0.00	352.17	9600.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9700.00	0.00	352.17	9700.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9800.00	0.00	352.17	9800.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	9900.00	0.00	352.17	9900.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10000.00	0.00	352.17	10000.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10100.00	0.00	352.17	10100.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10200.00	0.00	352.17	10200.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10300.00	0.00	352.17	10300.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10400.00	0.00	352.17	10400.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10500.00	0.00	352.17	10500.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10600.00	0.00	352.17	10600.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10700.00	0.00	352.17	10700.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10772.00	0.00	352.17	10772.00	0.00	0.00	0.00	555038.90	788589.80	N 32 31 23.89	W 103 31 52.09	0.00	0.00	0.00
	10800.00	3.36	352.17	10799.98	0.82	0.81	-0.11	555039.71	788589.69	N 32 31 23.90	W 103 31 52.09	0.82	352.17	11.99
	10900.00	15.34	352.17	10898.48	17.03	16.88	-2.32	555055.78	788587.48	N 32 31 24.06	W 103 31 52.12	17.03	352.17	11.99
	11000.00	27.33	352.17	10991.45	53.35	52.85	-7.27	555091.75	788582.53	N 32 31 24.41	W 103 31 52.17	53.35	352.17	11.99
	11100.00	39.31	352.17	11074.86	108.18	107.17	-14.75	555146.07	788575.05	N 32 31 24.95	W 103 31 52.25	108.18	352.17	11.99
	11200.00	51.30	352.17	11145.07	179.14	177.47	-24.42	555216.36	788565.38	N 32 31 25.65	W 103 31 52.36	179.14	352.17	11.99
	11300.00	63.28	352.17	11199.00	263.13	260.67	-35.87	555299.57	788553.93	N 32 31 26.47	W 103 31 52.49	263.13	352.17	11.99
	11400.00	75.27	352.17	11234.32	356.49	353.16	-48.60	555392.05	788541.20	N 32 31 27.39	W 103 31 52.63	356.49	352.17	11.99
	11500.00	87.26	352.17	11249.48	455.15	450.90	-62.05	555489.79	788527.75	N 32 31 28.36	W 103 31 52.77	455.15	352.17	11.99
	11517.42	89.35	352.17	11250.00	472.57	468.16	-64.42	555507.04	788525.38	N 32 31 28.53	W 103 31 52.80	472.57	352.17	11.99
	11600.00	89.34	352.17	11250.94	555.14	549.95	-75.68	555588.84	788514.13	N 32 31 29.34	W 103 31 52.93	555.14	352.17	0.00
	11700.00	89.34	352.17	11252.09	655.13	649.01	-89.31	555687.90	788500.49	N 32 31 30.32	W 103 31 53.08	655.13	352.17	0.00
	11800.00	89.34	352.17	11253.24	755.12	748.07	-102.94	555786.96	788486.86	N 32 31 31.30	W 103 31 53.23	755.12	352.17	0.00
	11900.00	89.34	352.17	11254.39	855.12	847.13	-116.57	555886.01	788473.23	N 32 31 32.28	W 103 31 53.38	855.12	352.17	0.00
	12000.00	89.34	352.17	11255.55	955.11	946.19	-130.20	555985.07	788459.60	N 32 31 33.26	W 103 31 53.53	955.11	352.17	0.00
	12100.00	89.34	352.17	11256.71	1055.10	1045.25	-143.83	556084.13	788445.97	N 32 31 34.24	W 103 31 53.68	1055.10	352.17	0.00
	12200.00	89.33	352.17	11257.87	1155.10	1144.31	-157.46	556183.19	788432.34	N 32 31 35.22	W 103 31 53.83	1155.10	352.17	0.00
	12300.00	89.33	352.17	11259.03	1255.09	1243.37	-171.09	556282.25	788418.71	N 32 31 36.21	W 103 31 53.98	1255.09	352.17	0.00
	12400.00	89.33	352.17	11260.20	1355.08	1342.43	-184.72	556381.30	788405.08	N 32 31 37.19	W 103 31 54.13	1355.08	352.17	0.00
	12500.00	89.33	352.17	11261.37	1455.08	1441.49	-198.35	556480.36	788391.46	N 32 31 38.17	W 103 31 54.28	1455.08	352.17	0.00
	12600.00	89.33	352.17	11262.54	1555.07	1540.55	-211.98	556579.42	788377.83	N 32 31 39.15	W 103 31 54.43	1555.07	352.17	0.00
	12700.00	89.33	352.17	11263.71	1655.06	1639.61	-225.61	556678.48	788364.20	N 32 31 40.13	W 103 31 54.58	1655.06	352.17	0.00
	12800.00	89.32	352.17	11264.89	1755.06	1738.67	-239.24	556777.53	788350.57	N 32 31 41.11	W 103 31 54.73	1755.06	352.17	0.00
	12900.00	89.32	352.17	11266.07	1855.05	1837.73	-252.87	556876.59	788336.94	N 32 31 42.09	W 103 31 54.88	1855.05	352.17	0.00
	13000.00	89.32	352.17	11267.25	1955.04	1936.79	-266.50	556975.65	788323.31	N 32 31 43.07	W 103 31 55.03	1955.04	352.17	0.00
	13100.00	89.32	352.17	11268.44	2055.03	2035.85	-280.12	557074.71	788309.68	N 32 31 44.05	W 103 31 55.18	2055.03	352.17	0.00
	13200.00	89.32	352.17	11269.63	2155.03	2134.91	-293.75	557173.76	788296.05	N 32 31 45.04	W 103 31 55.33	2155.03	352.17	0.00
	13300.00	89.32	352.17	11270.82	2255.02	2233.97	-307.38	557272.82	788282.43	N 32 31 46.02	W 103 31 55.48	2255.02	352.17	0.00
	13400.00	89.32	352.17	11272.01	2355.01	2333.03	-321.01	557371.88	788268.80	N 32 31 47.00	W 103 31 55.63	2355.01	352.17	0.00
	13500.00	89.31	352.17	11273.21	2455.01	2432.09	-334.64	557470.94	788255.17	N 32 31 47.98	W 103 31 55.78	2455.01	352.17	0.00
	13600.00	89.31	352.17	11274.41	2555.00	2531.15	-348.27	557569.99	788241.54	N 32 31 48.96	W 103 31 55.93	2555.00	352.17	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS ("/100ft)
	13700.00	89.31	352.17	11275.61	2654.99	2630.21	-361.89	557669.05	788227.92	N 32 31 49.94	W 103 31 56.09	2654.99	352.17	0.00
	13800.00	89.31	352.17	11276.82	2754.98	2729.27	-375.52	557768.11	788214.29	N 32 31 50.92	W 103 31 56.24	2754.98	352.17	0.00
	13900.00	89.31	352.17	11278.02	2854.98	2828.33	-389.15	557867.17	788200.66	N 32 31 51.90	W 103 31 56.39	2854.98	352.17	0.00
	14000.00	89.31	352.17	11279.23	2954.97	2927.39	-402.78	557966.22	788187.03	N 32 31 52.88	W 103 31 56.54	2954.97	352.17	0.00
	14100.00	89.30	352.17	11280.45	3054.96	3026.45	-416.40	558065.28	788173.41	N 32 31 53.87	W 103 31 56.69	3054.96	352.17	0.00
	14200.00	89.30	352.17	11281.66	3154.95	3125.51	-430.03	558164.34	788159.78	N 32 31 54.85	W 103 31 56.84	3154.95	352.17	0.00
	14300.00	89.30	352.17	11282.88	3254.95	3224.57	-443.66	558263.40	788146.15	N 32 31 55.83	W 103 31 56.99	3254.95	352.17	0.00
	14400.00	89.30	352.17	11284.11	3354.94	3323.63	-457.28	558362.45	788132.53	N 32 31 56.81	W 103 31 57.14	3354.94	352.17	0.00
	14500.00	89.30	352.17	11285.33	3454.93	3422.69	-470.91	558461.51	788118.90	N 32 31 57.79	W 103 31 57.29	3454.93	352.17	0.00
	14600.00	89.30	352.17	11286.56	3554.92	3521.75	-484.54	558560.57	788105.28	N 32 31 58.77	W 103 31 57.44	3554.92	352.17	0.00
	14700.00	89.29	352.17	11287.79	3654.92	3620.81	-498.16	558659.63	788091.65	N 32 31 59.75	W 103 31 57.59	3654.92	352.17	0.00
	14800.00	89.29	352.17	11289.02	3754.91	3719.87	-511.79	558758.68	788078.02	N 32 32 0.73	W 103 31 57.74	3754.91	352.17	0.00
	14900.00	89.29	352.17	11290.26	3854.90	3818.93	-525.41	558857.74	788064.40	N 32 32 1.72	W 103 31 57.89	3854.90	352.17	0.00
	15000.00	89.29	352.17	11291.49	3954.89	3917.99	-539.04	558956.80	788050.77	N 32 32 2.70	W 103 31 58.04	3954.89	352.17	0.00
	15100.00	89.29	352.17	11292.73	4054.89	4017.05	-552.66	559055.86	788037.15	N 32 32 3.68	W 103 31 58.19	4054.89	352.17	0.00
	15200.00	89.29	352.17	11293.98	4154.88	4116.11	-566.29	559154.91	788023.52	N 32 32 4.66	W 103 31 58.34	4154.88	352.17	0.00
	15300.00	89.28	352.17	11295.23	4254.87	4215.17	-579.91	559253.97	788009.90	N 32 32 5.64	W 103 31 58.49	4254.87	352.17	0.00
	15400.00	89.28	352.17	11296.48	4354.86	4314.23	-593.54	559353.03	787996.27	N 32 32 6.62	W 103 31 58.64	4354.86	352.17	0.00
	15500.00	89.28	352.17	11297.73	4454.86	4413.29	-607.16	559452.08	787982.65	N 32 32 7.60	W 103 31 58.79	4454.86	352.17	0.00
	15600.00	89.28	352.17	11298.98	4554.85	4512.34	-620.79	559551.14	787969.02	N 32 32 8.58	W 103 31 58.94	4554.85	352.17	0.00
Cimarex Lynch 35 Federal #3H PBHL	15680.92	89.28	352.17	11300.00	4635.76	4592.51	-631.81	559631.30	787958.00	N 32 32 9.38	W 103 31 59.07	4635.76	352.17	0.00

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	15680.921	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Lynch 35 Federal #3H Rev1 RJS 24-Sep-

Drilling 12-1/4" hole
below 13 3/8" Casing

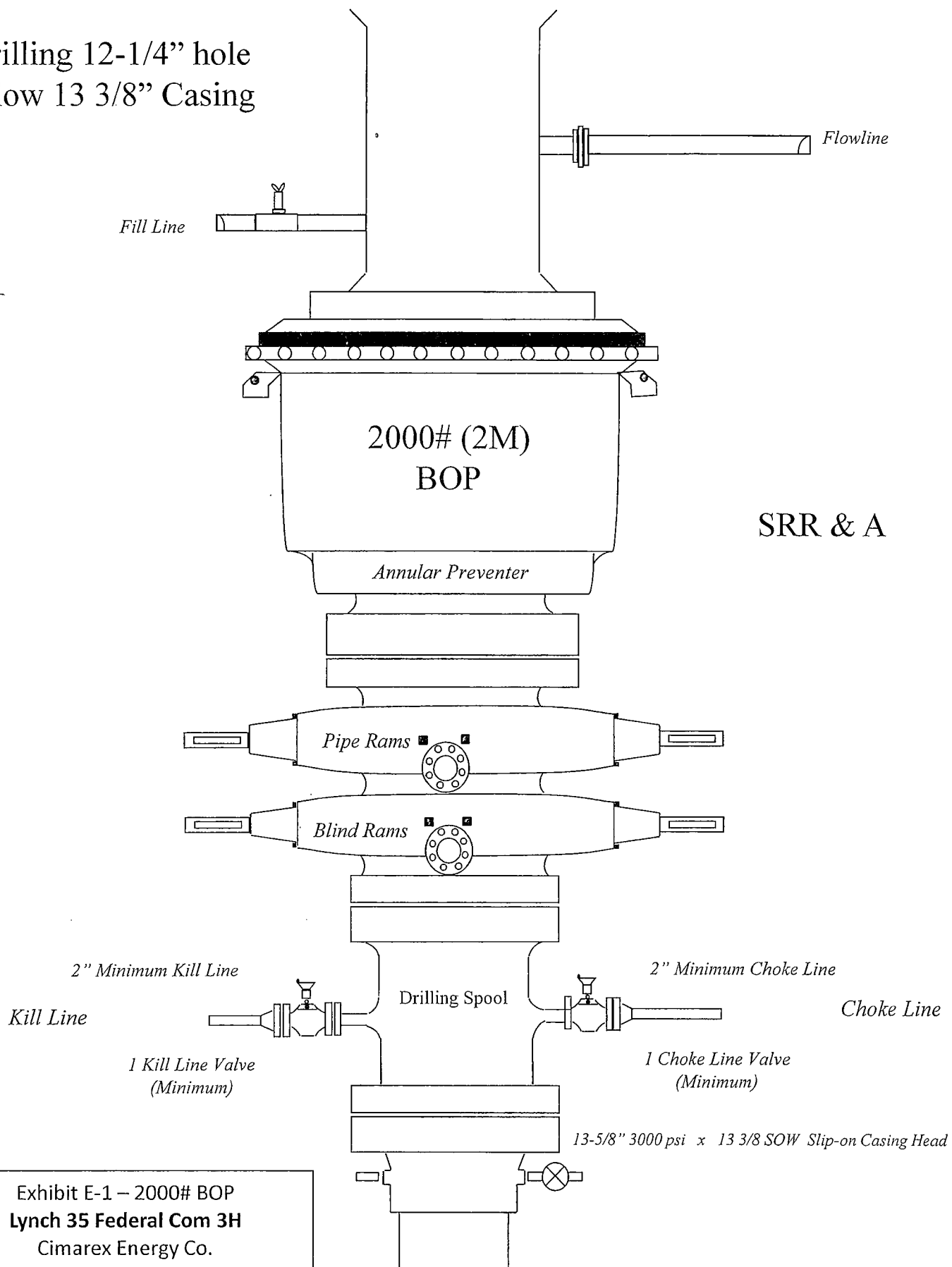


Exhibit E-1 – 2000# BOP
Lynch 35 Federal Com 3H
Cimarex Energy Co.
35-24S-34E
SHL 300' FSL & 2580' FWL
BHL 330' FNL & 1980' FWL
Lea County, NM

Drilling 8-3/4" hole
below 9 5/8" Casing

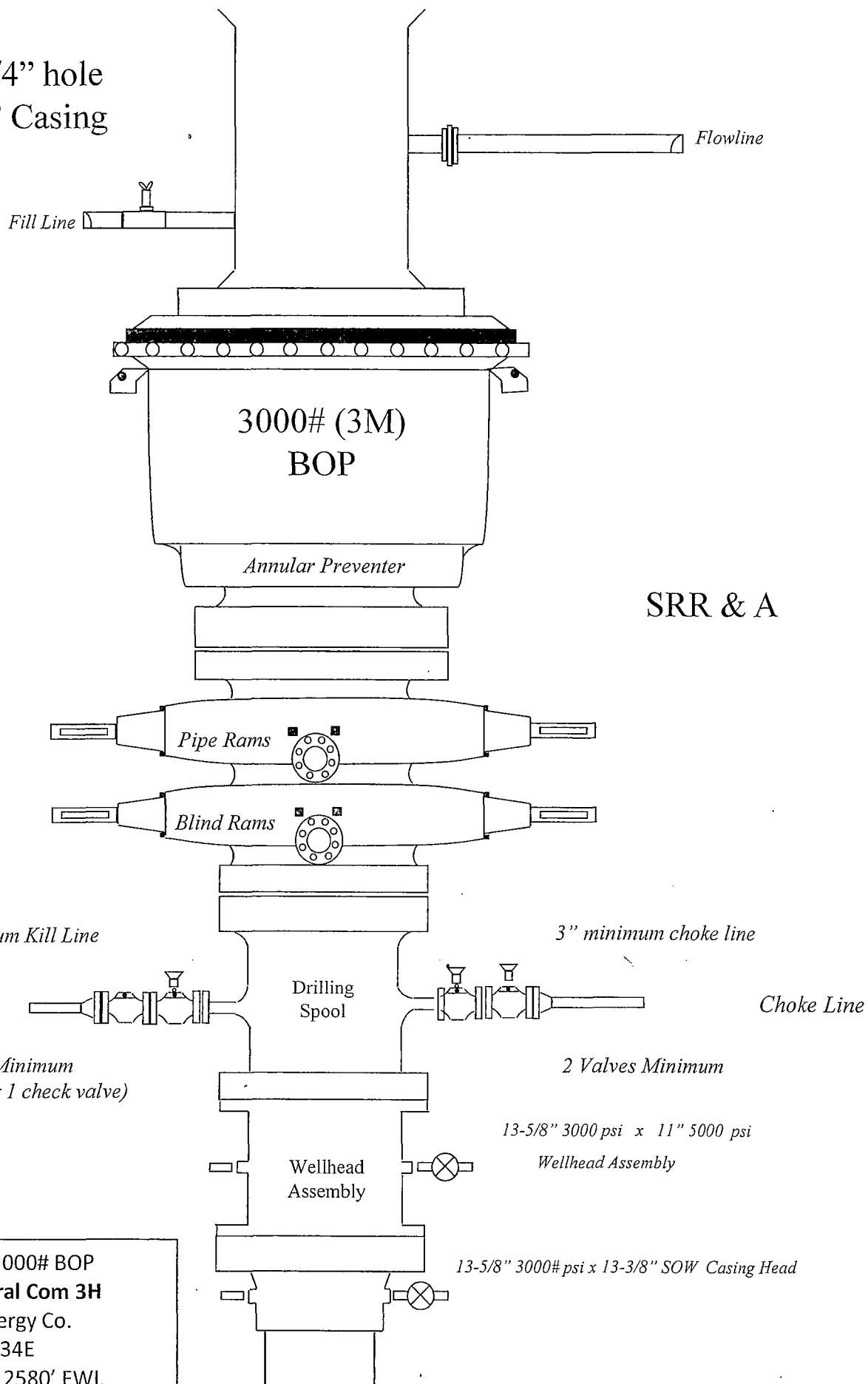
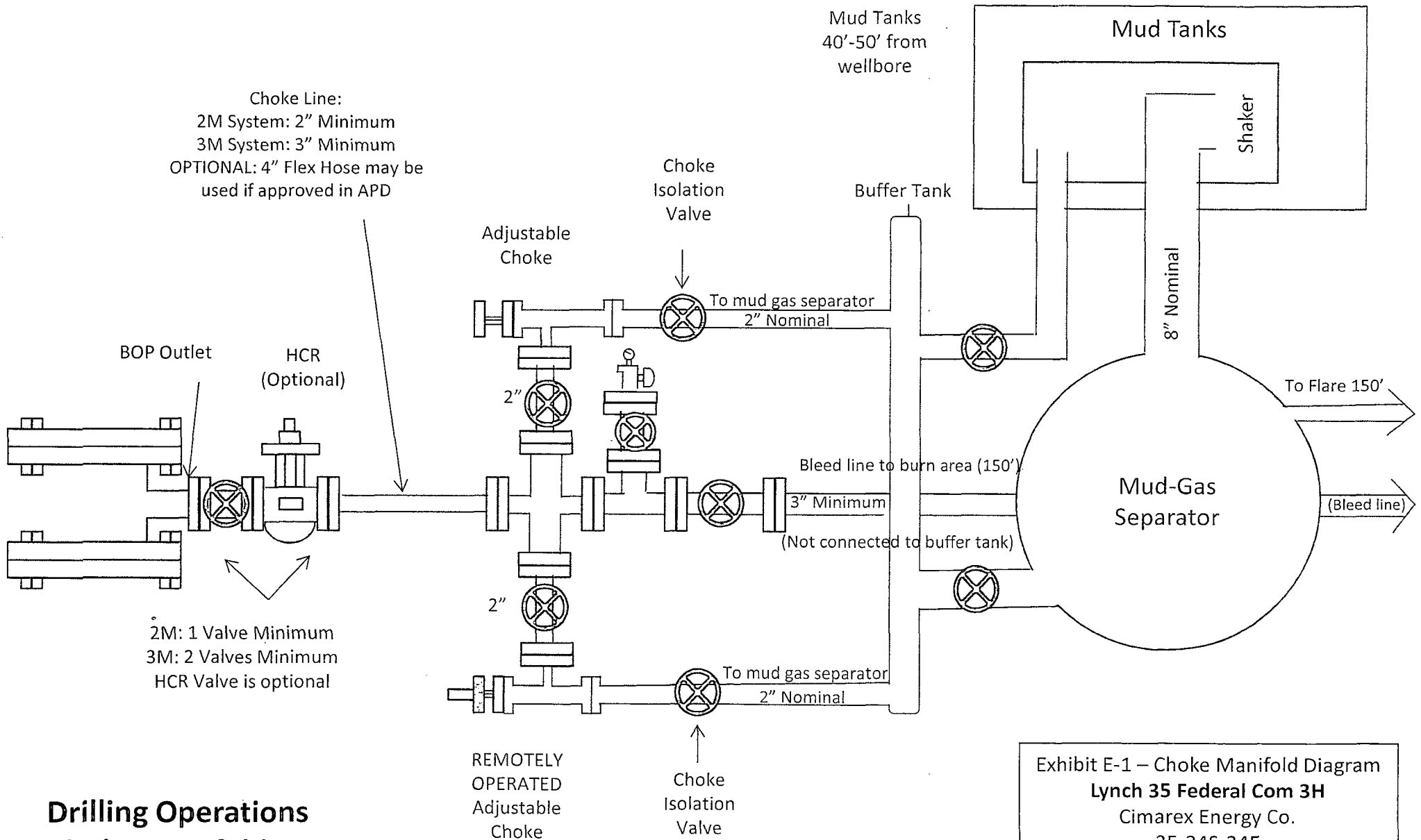


Exhibit E-1 – 3000# BOP
Lynch 35 Federal Com 3H
Cimarex Energy Co.
35-24S-34E
SHL 300' FSL & 2580' FWL
BHL 330' FNL & 1980' FWL
Lea County, NM

Choke Line:
 2M System: 2" Minimum
 3M System: 3" Minimum
 OPTIONAL: 4" Flex Hose may be
 used if approved in APD



Drilling Operations Choke Manifold 2M/3M Service

2M: 1 Valve Minimum
 3M: 2 Valves Minimum
 HCR Valve is optional

Exhibit E-1 – Choke Manifold Diagram
Lynch 35 Federal Com 3H
 Cimarex Energy Co.
 35-24S-34E
 SHL 300' FSL & 2580' FWL
 BHL 330' FNL & 1980' FWL
 Lea County, NM

Exhibit F – Co-Flex Hose
Lynch 35 Federal Com 3H
Cimarex Energy Co.
35-24S-34E
SHL 300' FSL & 2580' FWL
BHL 330' FNL & 1980' FWL
Lea County, NM

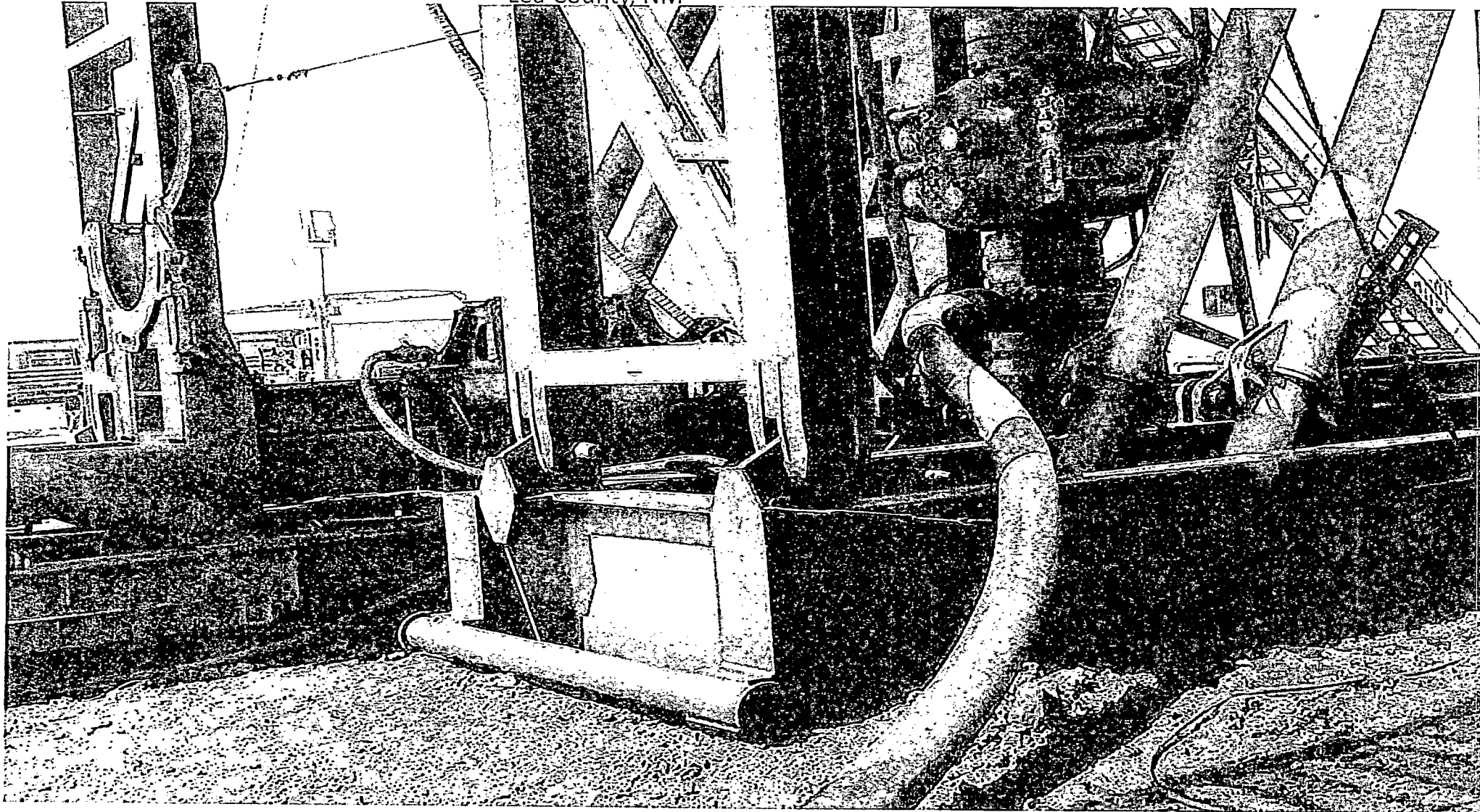


Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Lynch 35 Federal Com 3H

Cimarex Energy Co.

35-24S-34E

SHL 300' FSL & 2580' FWL

BHL 330' FNL & 1980' FWL

Lea County, NM



Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer: Oderco Inc		P.O. Number: odyd-271	
HOSE SPECIFICATIONS			
Type: Stainless Steel Armor Choke & Kill Hose		Hose Length: 45'ft.	
I.D. 4 INCHES		O.D. 9 INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE 0 PSI	
COUPLINGS			
Stem Part No. OKC OKC		Ferrule No. OKC OKC	
Type of Coupling: Swage-It			
PROCEDURE			
<u>Hose assembly pressure tested with water at ambient temperature.</u>			
TIME HELD AT TEST PRESSURE 15 MIN.		ACTUAL BURST PRESSURE: 0 PSI	
Hose Assembly Serial Number: 79793		Hose Serial Number: OKC	
Comments:			
Date: 3/8/2011	Tested: <i>A. J. Smith</i>		Approved: <i>Kevin [Signature]</i>



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: Houston

Pick Ticket #: 94260

March 3, 2011

Hose Specifications

Hose Type
C & K

I.D.
4"

O.D.
6.09"

Length
45'

Verification

Type of Fitting
41/16 10K

Die Size
6.38"

Coupling Method
Swage

Final O.D.
6.25"

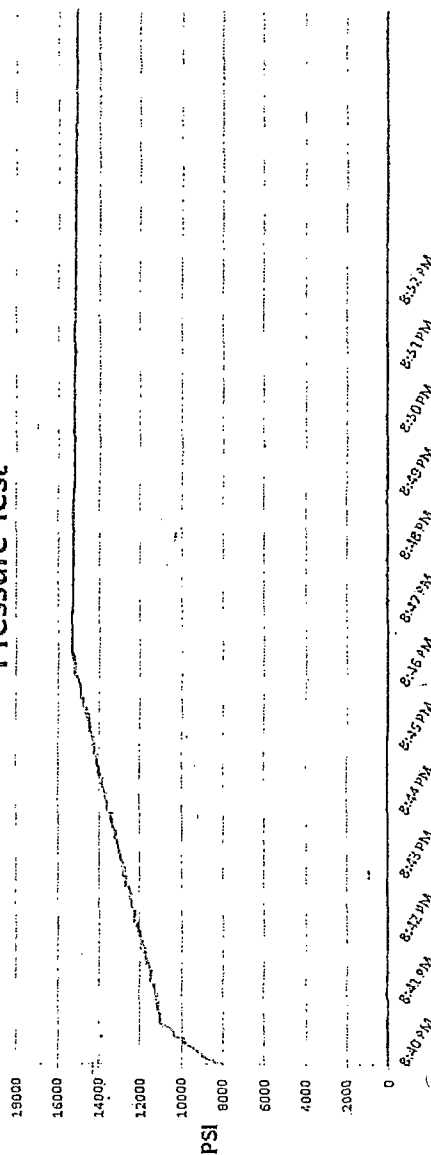
Working Pressure
10000 PSI

Burst Pressure
Standard Safety Multiplier Applied

Hose Serial #
5544

Hose Assembly Serial #
79793

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
11 Minutes

Actual Burst Pressure

Peak Pressure
15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Zac McConnell

Approved By: Kim Thomas

[Signature]

[Signature]

Exhibit F-2 – Co-Flex Hose
Lynch 35 Federal Com 3H

Cimarex Energy Co.
35-24S-34E

SHL 300' FSL & 2580' FWL
BHL 330' FNL & 1980' FWL
Lea County, NM



Midwest Hose & Specialty, Inc.

Certificate of Conformity

Customer:

DEM

PO

ODYD-271

SPECIFICATIONS

Sales Order

79793

Dated:

3/8/2011

We hereby certify that the material supplied
for the referenced purchase order to be true
according to the requirements of the purchase
order and current industry standards

Supplier:

Midwest Hose & Specialty, Inc.
10640 Tanner Road
Houston, Texas 77041

Comments:

Approved:

James Elvick

Date:

3/8/2011

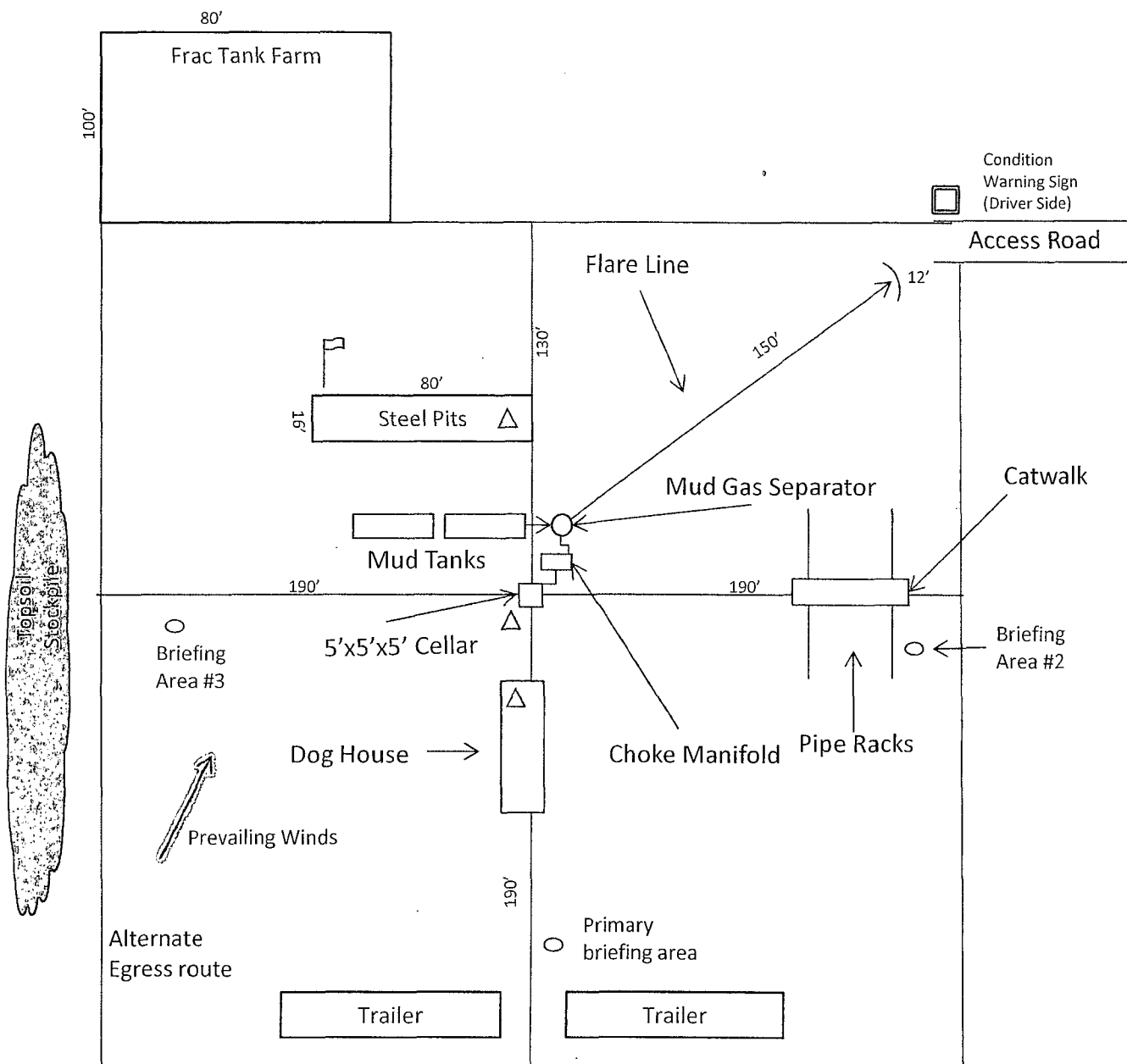


Exhibit F -3- Co-Flex Hose
Lynch 35 Federal Com 3H
Cimarex Energy Co.
35-24S-34E
SHL 300' FSL & 2580' FWL
BHL 330' FNL & 1980' FWL
Lea County, NM

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 vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

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



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



Exhibit D – Rig Diagram
Lynch 35 Federal Com 3H
 Cimarex Energy Co.
 35-24S-34E
 SHL 300' FSL & 2580' FWL
 BHL 330' FNL & 1980' FWL
 Lea County, NM