

OCD Hobbs

Form 3160-3
(March 2012)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNORTHODOX
LOCATION

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 20145. Lease Serial No.
SHLABHL: NMNM 085939

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.

Colibri Federal #23H

9. API Well No.

30-025-42181

10. Field and Pool, or Exploratory

DIAMOND TAIL, B2 (17644)

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

10, 23S, 32E

12. County or Parish

Lea

13. State

NM

1a. Type of Work



DRILL



REENTER

1b. Type of Well



Oil Well



Gas Well



Other



Single Zone



Multiple Zone

2. Name of Operator

Cimarex Energy Co.

3a. Address

202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103

3b. Phone No. (include area code)

918-585-1100

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

At Surface

230' FNL 2200' FEL

(B)
(O)

At proposed prod. Zone

330' FSL 2220' FEL

Bone Spring

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

Malaga, NM is 25 miles Southwesterly

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

230

16. No of acres in lease

NMNM 085939=640.00 acres

17. Spacing Unit dedicated to this well

160.00

HOBBS OCD

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

1303' from #25H

19. Proposed Depth

Pilot Hole TD: 12,250

14,216 MD

9,700 TVD

20. BLM/BIA Bond No. on File

NM2575; NMB000835

OCT 14 2014

RECEIVED

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

3706 GR

22. Approximate date work will start*

7/14/14

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:

- 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

Aricka Easterling

Name (Printed/Typed)

Aricka Easterling

Date

3/19/14

Title

Regulatory Compliance

Steve Caffey

Approved By (Signature)

Name (Printed/Typed)

Date

OCT - 7 2014

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.

(Continued)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedCONDITIONS OF APPROVAL
OCT 16 2014

Application to Drill
Colibri Federal #23H
 Cimarex Energy Co.
 UL: B, Sec. 10, 23S, 32E
 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 230' FNL 2200' FEL

BHL 330' FSL 2220' FEL

2. Elevation Above Sea Level: 3,706' 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: 14,216 MD 9,700 TVD Pilot Hole TD: 12,250

6. Estimated Tops of Geological Markers:

Formation	Est Top	Bearing
Rustler	1160	N/A
Salt	1340	N/A
Castille	3400	N/A
Base Last Salt	4580	N/A
Lamar	4840	N/A
Bell Canyon	4880	N/A
Cherry Canyon	5740	N/A
Brushy Canyon	7025	N/A
Bone Spring	8730	Hydrocarbons
Avalon Shale	9500	Hydrocarbons
1st Bone Spring Ss	9885	Hydrocarbons
2nd Bone Spring SS	10500	Hydrocarbons
3rd Bone Spring Carbonate	11010	Hydrocarbons
3rd BSS	11785	Hydrocarbons
Wolfcamp	12100	Hydrocarbons

7. Possible Mineral Bearing Formation: Shown above

7A. OSE Ground Water Estimated Depth: 475'

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 Bouyed Weight (lbs)	Bouyant Tension SF (1.8)
Surface	0	1210	1210	17 1/2	13-3/8"	48.00	H-40	ST&C	New	553	8.8	1.34		3.12	58,080	50,277	6.40
Intermediate	0	4860	4860	12 1/4	9-5/8"	40.00	J-55	LT&C	New	2552	10.1		1.20	1.55	194,400	164,424	3.16
Production	0	9223	9223	8 3/4	5-1/2"	17.00	L-80	LT&C	New	4412	9.2	1.43		1.75	164,900	141,738	2.38
Production	9223	14216	9700	8 3/4	5-1/2"	17.00	L-80	BT&C	New	4640	9.2	1.36		1.67	8,109	6,970	56.96

Note: Operator may drill a 8-1/2" OH from end of curve to TD of the well. This is to reduce the need to ream the conventionally drilled curve to run a RSS assembly into the lateral.

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8A. Casing Design and Casing Loading Assumptions:

Surface	Tension	A 1.8 design factor with effects of buoyancy: 8.80 ppg.
	Collapse	A 1.125 design factor with full internal evacuation and a collapse force equal to a 8.80 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: 10.10 ppg.
	Collapse	A 1.125 design factor evacuated 1/3 TVD of next casing string with a collapse force equal to a 10.10 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 and/or Production Completion System	Tension	A 1.8 design factor with effects of buoyancy: 9.20 ppg.
	Collapse	A 1.125 design factor with full internal evacuation of next casing string with a collapse force equal to a 9.20 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	Lead	576	1.75	13.50	1008	Class C + Bentonite + Calcium Chloride + LCM, 8.829 gps water
	Tail	157	1.34	14.80	210	Class C + LCM, 6.32 gps water
	TOC: 0		45% Excess			Centralizers per Onshore Order 2.III.B.1f
Intermediate <i>See COA</i>	Lead	872	1.88	12.90	1638	35:65 (poz/C) + Salt + Bentonite + LCM + retarder, 9.65 gps water
	Tail	284	1.34	14.80	380	Class C + retarder + LCM, 6.32 gps water
	TOC: 0		44% Excess			
Production <i>See COA</i>	Lead	530	2.40	11.90	1271	35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder, 13.80 gps water
	Tail	1232	1.24	14.50	1527	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder, 5.55 gps water
	TOC: 4660		16% 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: 12,250'

KOP: 9,223'

EOC: 9,973'

Set OH mechanical whipstock w/ 2977 ft of 2.875 tubing and pump 30 bbls of Mudpush @ 12 ppg, followed by 1345 sks Type H cement, dispersant 0.080 gals/sk, retarder 0.045 gals/sk @ 17.50 ppg, 0.94 cuft/sk, & 0% excess from pilot hole TD to KOP. KO lateral and drill through the curve to TD. Run production csg to TD and cement.

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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.

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.

See COA

11. Proposed Mud Circulating System:

Depth	Mud Weight	Visc	Fluid Loss	Type Mud
0' to 1250'	8.30 - 8.80	28	NC	FW Spud Mud
1210' to 4860'	9.60 - 10.10	30-32	NC	Brine Water
4860' to 14216'	8.70 - 9.20	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 4860 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:

See COA

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: 5513 psi

Estimated BHT: 158°

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:

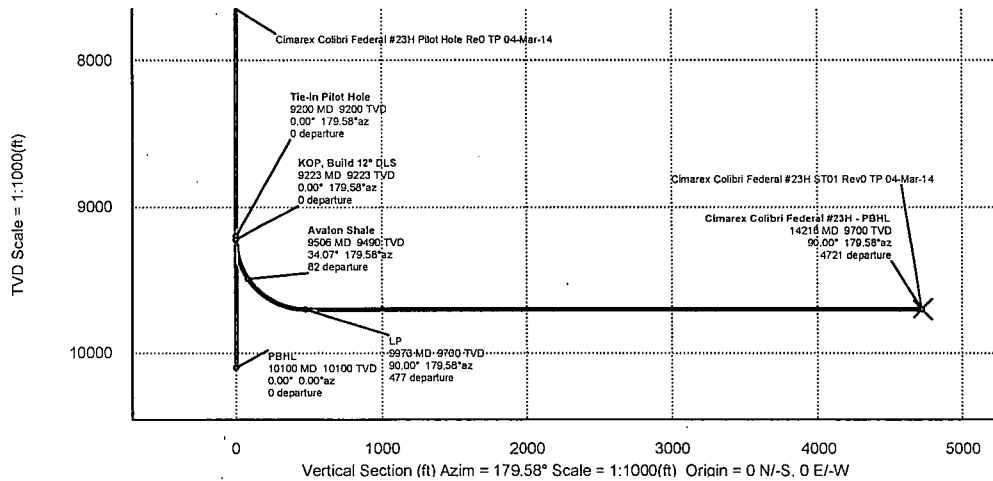
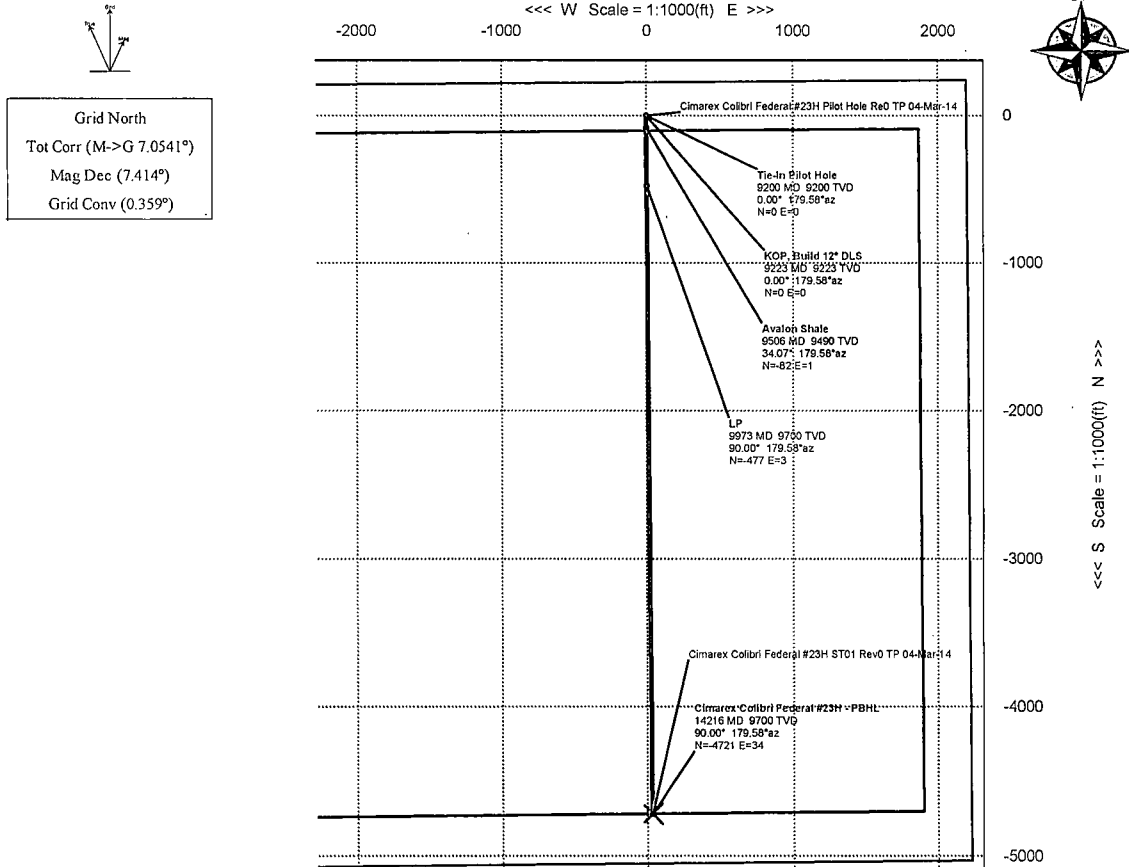
If production casing is run an additional 30 days will be required to complete and construct surface facilities.

Bone Spring pay will be perforated and stimulated.

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



WELL Colibri Federal #23H			FIELD NM Lea County (NAD 83)			STRUCTURE Cimarex Colibri Federal #23H		
Magnetic Parameters Model: BGM 2013 Dip: 60.184° Date: March 04, 2014 Mag Dec: 7.414° FS: 48374.2mT			Surface Location Lat: N 32 18 32.897 Lon: W 103 35 29 958 Northng: 482911.32 NUS Easting: 746983.84 EUS NAD83 New Mexico State Plane, Eastern Zone, US Feet Grid Corn: 0.359" Scale Fact: 0.9999847			Miscellaneous Sht: Colibri Federal #23H TVD Ref: Unknown (3706ft above MSL) Plan: Cimarex Colibri Federal #23H Rev 02/20/2014		



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+) / S(-)	E(+) / W(-)	DLS
Tie-In Pilot Hole	9200.00	0.00	179.58	9200.00	0.00	0.00	0.00	
KOP, Build 12° DLS	9222.54	0.00	179.58	9222.54	0.00	0.00	0.00	0.00
Avalon Shale	9506.44	34.07	179.58	9490.00	81.95	-81.94	0.60	12.00
LP	9972.54	90.00	179.58	9700.00	477.46	-477.45	3.47	12.00
Cimarex Colibri Federal #23H - PBHL	14215.82	90.00	179.58	9700.00	4720.75	-4720.63	34.35	0.00

Cimarex Colibri Federal #23H ST01 Rev0 TP 04-Mar-14 Proposal Report

(Non-Def Plan)

Report Date: March 04, 2014 - 01:14 PM
Client:
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Colibri Federal #23H / Colibri Federal #23H
Well: Colibri Federal #23H
Borehole: ST01
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Colibri Federal #23H ST01 Rev0 TP 04-Mar-14
Survey Date: March 04, 2014
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 4720.750 ft / 5.794 / 0.487
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 19' 32.89691", W 103° 39' 39.95758"
Location Grid N/E Y/X: N 482911.320 ftUS, E 748983.840 ftUS
CRS Grid Convergence Angle: 0.3595 °
Grid Scale Factor: 0.99995847

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.583 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Unknown
TVD Reference Elevation: 3706.000 ft above MSL
Seabed / Ground Elevation: 3706.000 ft above MSL
Magnetic Declination: 7.414 °
Total Field Strength: 48374.190 nT
Magnetic Dip Angle: 60.184 °
Declination Date: March 04, 2014
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.3595 °
Total Corr Mag North->Grid North: 7.0541 °
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)
Pilot Hole	0.00	0.00	0.00	0.00	0.00	0.00	0.00	482911.32	748983.84	N 32 19 32.90	W 103 39 39.96	0.00	0.00	N/A
Tie-In Pilot Hole	9200.00	0.00	179.58	9200.00	0.00	0.00	0.00	482911.32	748983.84	N 32 19 32.90	W 103 39 39.96	0.00	0.00	N/A
KOP, Build 12" DLS	9222.54	0.00	179.58	9222.54	0.00	0.00	0.00	482911.32	748983.84	N 32 19 32.90	W 103 39 39.96	0.00	0.00	0.00
	9300.00	9.30	179.58	9299.66	6.27	-6.27	0.05	482905.05	748983.89	N 32 19 32.83	W 103 39 39.96	6.27	179.58	12.00
	9400.00	21.30	179.58	9395.94	32.60	-32.60	0.24	482878.72	748984.08	N 32 19 32.57	W 103 39 39.96	32.60	179.58	12.00
Avalon Shale	9500.00	33.30	179.58	9484.64	78.38	-78.37	0.57	482832.95	748984.41	N 32 19 32.12	W 103 39 39.96	78.38	179.58	12.00
	9506.44	34.07	179.58	9490.00	81.95	-81.94	0.60	482829.38	748984.44	N 32 19 32.09	W 103 39 39.96	81.95	179.58	12.00
	9600.00	45.30	179.58	9561.89	141.59	-141.59	1.03	482769.74	748984.87	N 32 19 31.50	W 103 39 39.96	141.59	179.58	12.00
	9700.00	57.30	179.58	9624.31	219.49	-219.48	1.60	482691.85	748985.44	N 32 19 30.73	W 103 39 39.96	219.49	179.58	12.00
	9800.00	69.30	179.58	9669.16	308.66	-308.65	2.25	482602.68	748986.09	N 32 19 29.84	W 103 39 39.95	308.66	179.58	12.00
LP	9900.00	81.30	179.58	9694.50	405.21	-405.20	2.95	482506.14	748986.79	N 32 19 28.89	W 103 39 39.95	405.21	179.58	12.00
	9972.54	90.00	179.58	9700.00	477.46	-477.45	3.47	482433.89	748987.31	N 32 19 28.17	W 103 39 39.95	477.46	179.58	12.00
	10000.00	90.00	179.58	9700.00	504.93	-504.92	3.67	482406.43	748987.51	N 32 19 27.90	W 103 39 39.95	504.93	179.58	0.00
	10100.00	90.00	179.58	9700.00	604.93	-604.91	4.40	482306.43	748988.24	N 32 19 26.91	W 103 39 39.95	604.93	179.58	0.00
	10200.00	90.00	179.58	9700.00	704.93	-704.91	5.13	482206.44	748988.97	N 32 19 25.92	W 103 39 39.95	704.93	179.58	0.00
	10300.00	90.00	179.58	9700.00	804.93	-804.91	5.86	482106.45	748989.70	N 32 19 24.93	W 103 39 39.95	804.93	179.58	0.00
	10400.00	90.00	179.58	9700.00	904.93	-904.91	6.58	482006.45	748990.42	N 32 19 23.94	W 103 39 39.95	904.93	179.58	0.00
	10500.00	90.00	179.58	9700.00	1004.93	-1004.90	7.31	481906.46	748991.15	N 32 19 22.95	W 103 39 39.95	1004.93	179.58	0.00
	10600.00	90.00	179.58	9700.00	1104.93	-1104.90	8.04	481806.47	748991.88	N 32 19 21.96	W 103 39 39.94	1104.93	179.58	0.00
	10700.00	90.00	179.58	9700.00	1204.93	-1204.90	8.77	481706.47	748992.61	N 32 19 20.97	W 103 39 39.94	1204.93	179.58	0.00
	10800.00	90.00	179.58	9700.00	1304.93	-1304.90	9.50	481606.48	748993.34	N 32 19 19.98	W 103 39 39.94	1304.93	179.58	0.00
	10900.00	90.00	179.58	9700.00	1404.93	-1404.89	10.22	481506.49	748994.06	N 32 19 19.00	W 103 39 39.94	1404.93	179.58	0.00
	11000.00	90.00	179.58	9700.00	1504.93	-1504.89	10.95	481406.50	748994.79	N 32 19 18.01	W 103 39 39.94	1504.93	179.58	0.00
	11100.00	90.00	179.58	9700.00	1604.93	-1604.89	11.68	481306.50	748995.52	N 32 19 17.02	W 103 39 39.94	1604.93	179.58	0.00
	11200.00	90.00	179.58	9700.00	1704.93	-1704.88	12.41	481206.51	748996.25	N 32 19 16.03	W 103 39 39.94	1704.93	179.58	0.00
	11300.00	90.00	179.58	9700.00	1804.93	-1804.88	13.13	481106.52	748996.97	N 32 19 15.04	W 103 39 39.94	1804.93	179.58	0.00
	11400.00	90.00	179.58	9700.00	1904.93	-1904.88	13.86	481006.52	748997.70	N 32 19 14.05	W 103 39 39.94	1904.93	179.58	0.00
	11500.00	90.00	179.58	9700.00	2004.93	-2004.88	14.59	480906.53	748998.43	N 32 19 13.06	W 103 39 39.93	2004.93	179.58	0.00
	11600.00	90.00	179.58	9700.00	2104.93	-2104.87	15.32	480806.54	748999.16	N 32 19 12.07	W 103 39 39.93	2104.93	179.58	0.00
	11700.00	90.00	179.58	9700.00	2204.93	-2204.87	16.04	480706.54	748999.88	N 32 19 11.08	W 103 39 39.93	2204.93	179.58	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)
	11800.00	90.00	179.58	9700.00	2304.93	-2304.87	16.77	480606.55	749000.61	N 32 19 10.09	W 103 39 39.93	2304.93	179.58	0.00
	11900.00	90.00	179.58	9700.00	2404.93	-2404.87	17.50	480506.56	749001.34	N 32 19 9.10	W 103 39 39.93	2404.93	179.58	0.00
	12000.00	90.00	179.58	9700.00	2504.93	-2504.86	18.23	480406.57	749002.07	N 32 19 8.11	W 103 39 39.93	2504.93	179.58	0.00
	12100.00	90.00	179.58	9700.00	2604.93	-2604.86	18.96	480306.57	749002.79	N 32 19 7.12	W 103 39 39.93	2604.93	179.58	0.00
	12200.00	90.00	179.58	9700.00	2704.93	-2704.86	19.68	480206.58	749003.52	N 32 19 6.13	W 103 39 39.93	2704.93	179.58	0.00
	12300.00	90.00	179.58	9700.00	2804.93	-2804.86	20.41	480106.59	749004.25	N 32 19 5.14	W 103 39 39.92	2804.93	179.58	0.00
	12400.00	90.00	179.58	9700.00	2904.93	-2904.85	21.14	480006.59	749004.98	N 32 19 4.15	W 103 39 39.92	2904.93	179.58	0.00
	12500.00	90.00	179.58	9700.00	3004.93	-3004.85	21.87	479906.60	749005.71	N 32 19 3.16	W 103 39 39.92	3004.93	179.58	0.00
	12600.00	90.00	179.58	9700.00	3104.93	-3104.85	22.59	479806.61	749006.43	N 32 19 2.17	W 103 39 39.92	3104.93	179.58	0.00
	12700.00	90.00	179.58	9700.00	3204.93	-3204.84	23.32	479706.61	749007.16	N 32 19 1.18	W 103 39 39.92	3204.93	179.58	0.00
	12800.00	90.00	179.58	9700.00	3304.93	-3304.84	24.05	479606.62	749007.89	N 32 19 0.19	W 103 39 39.92	3304.93	179.58	0.00
	12900.00	90.00	179.58	9700.00	3404.93	-3404.84	24.78	479506.63	749008.62	N 32 18 59.21	W 103 39 39.92	3404.93	179.58	0.00
	13000.00	90.00	179.58	9700.00	3504.93	-3504.84	25.50	479406.64	749009.34	N 32 18 58.22	W 103 39 39.92	3504.93	179.58	0.00
	13100.00	90.00	179.58	9700.00	3604.93	-3604.83	26.23	479306.64	749010.07	N 32 18 57.23	W 103 39 39.92	3604.93	179.58	0.00
	13200.00	90.00	179.58	9700.00	3704.93	-3704.83	26.96	479206.65	749010.80	N 32 18 56.24	W 103 39 39.91	3704.93	179.58	0.00
	13300.00	90.00	179.58	9700.00	3804.93	-3804.83	27.69	479106.66	749011.53	N 32 18 55.25	W 103 39 39.91	3804.93	179.58	0.00
	13400.00	90.00	179.58	9700.00	3904.93	-3904.83	28.42	479006.66	749012.25	N 32 18 54.26	W 103 39 39.91	3904.93	179.58	0.00
	13500.00	90.00	179.58	9700.00	4004.93	-4004.82	29.14	478906.67	749012.98	N 32 18 53.27	W 103 39 39.91	4004.93	179.58	0.00
	13600.00	90.00	179.58	9700.00	4104.93	-4104.82	29.87	478806.68	749013.71	N 32 18 52.28	W 103 39 39.91	4104.93	179.58	0.00
	13700.00	90.00	179.58	9700.00	4204.93	-4204.82	30.60	478706.68	749014.44	N 32 18 51.29	W 103 39 39.91	4204.93	179.58	0.00
	13800.00	90.00	179.58	9700.00	4304.93	-4304.82	31.33	478606.69	749015.16	N 32 18 50.30	W 103 39 39.91	4304.93	179.58	0.00
	13900.00	90.00	179.58	9700.00	4404.93	-4404.81	32.05	478506.70	749015.89	N 32 18 49.31	W 103 39 39.91	4404.93	179.58	0.00
	14000.00	90.00	179.58	9700.00	4504.93	-4504.81	32.78	478406.71	749016.62	N 32 18 48.32	W 103 39 39.90	4504.93	179.58	0.00
	14100.00	90.00	179.58	9700.00	4604.93	-4604.81	33.51	478306.71	749017.35	N 32 18 47.33	W 103 39 39.90	4604.93	179.58	0.00
	14200.00	90.00	179.58	9700.00	4704.93	-4704.81	34.24	478206.72	749018.07	N 32 18 46.34	W 103 39 39.90	4704.93	179.58	0.00
Cimarex Colibri Federal #23H - PBHL	14215.82	90.00	179.58	9700.00	4720.75	-4720.63	34.35	478190.90	749018.19	N 32 18 46.19	W 103 39 39.90	4720.75	179.58	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	9200.000	1/100.000	30.000	30.000	SLB_MWD-POOR	Pilot Hole / Cimarex Colibri Federal #23H Pilot Hole Re0 TP ST01 / Cimarex Colibri Federal #23H ST01 Rev0 TP 04-Mar-14
	9200.000	14215.821	1/100.000	30.000	30.000	SLB_MWD-STD	

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

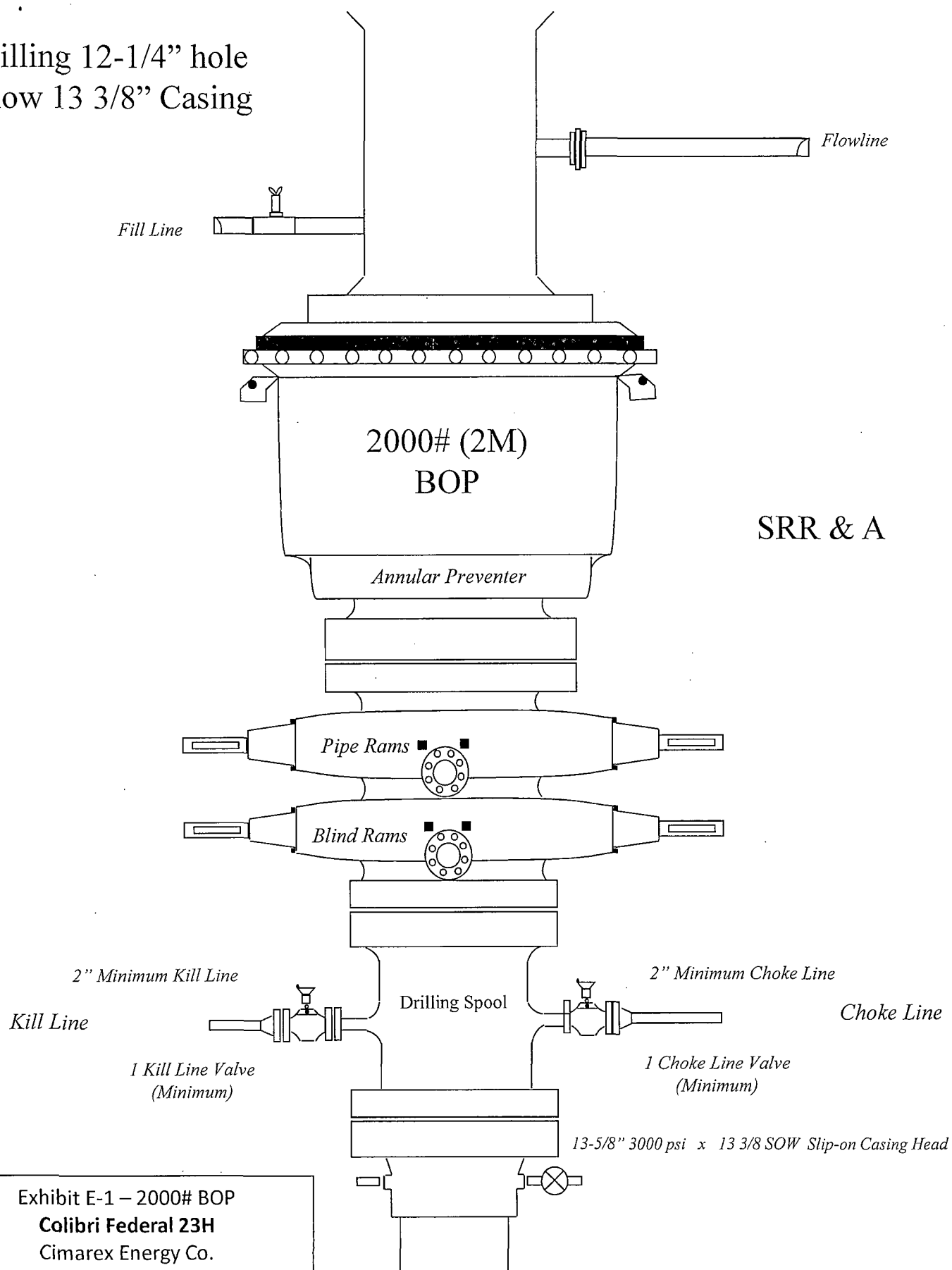
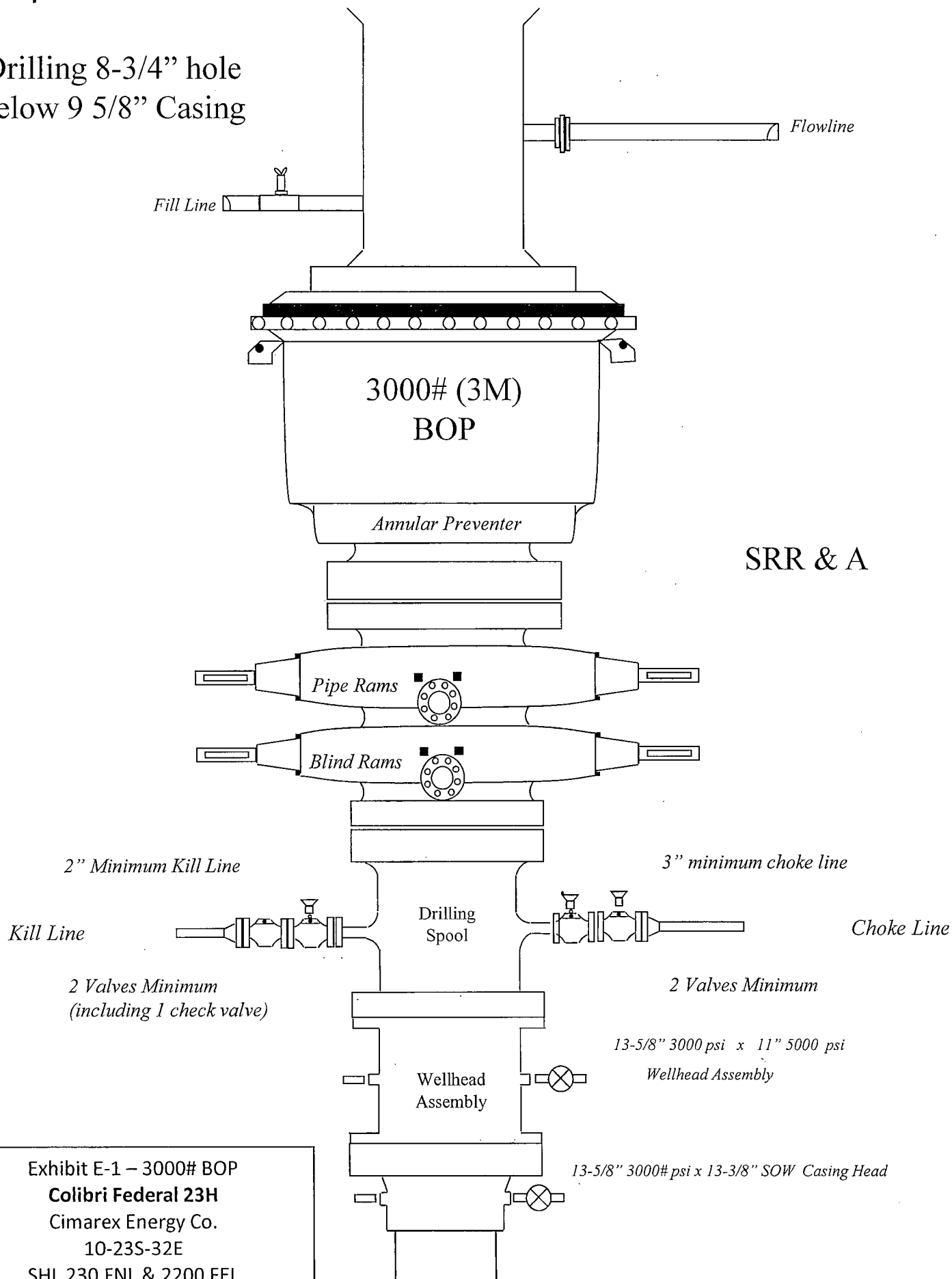


Exhibit E-1 – 2000# BOP
Colibri Federal 23H
Cimarex Energy Co.
10-23S-32E
SHL 230 FNL & 2200 FEL
BHL 330 FSL & 2200 FEL
Lea County, NM

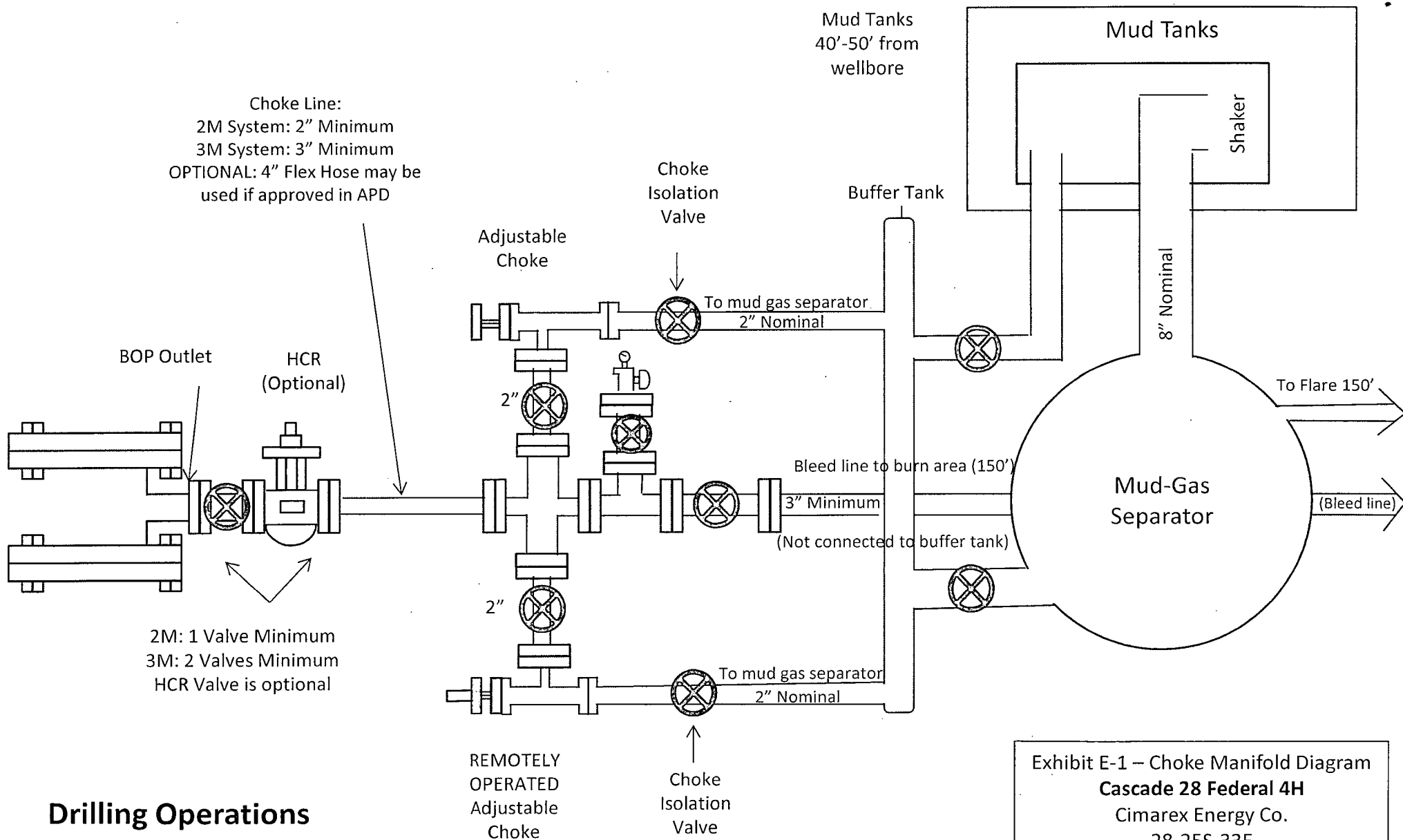
Drilling 8-3/4" hole
below 9 5/8" Casing



SRR & A

Exhibit E-1 – 3000# BOP
Colibri Federal 23H
Cimarex Energy Co.
10-23S-32E
SHL 230 FNL & 2200 FEL
BHL 330 FSL & 2200 FEL
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

Exhibit E-1 – Choke Manifold Diagram
Cascade 28 Federal 4H
 Cimarex Energy Co.
 28-25S-33E
 SHL 180 FNL & 1350 FEL
 BHL 330 FSL & 2200 FEL
 Lea County, NM

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Colibri Federal 23H

Cimarex Energy Co.

10-23S-32E

SHL 230 FNL & 2200 FEL

BHL 330 FSL & 2200 FEL

Lea County, NM



Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:		P.O. Number:	
Oderco Inc		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	TEST PRESSURE	BURST PRESSURE	
10,000 PSI	15,000 PSI	0 PSI	
COUPLINGS			
Stem Part No.		Ferrule No.	
OKC OKC		OKC OKC	
Type of Coupling:			
Swage-It			
PROCEDURE			
<i>Hose assembly pressure tested with water at ambient temperature.</i>			
TIME HELD AT TEST PRESSURE		ACTUAL BURST PRESSURE:	
15 MIN.		0 PSI	
Hose Assembly Serial Number:		Hose Serial Number:	
79793		OKC	
Comments:			
Date:	Tested:	Approved:	
3/8/2011	<i>A. Jaime Sanchez</i>	<i>Kevin Hef</i>	

March 3, 2011

Internal Hydrostatic Test Graph

Customer: Houston

Pick Ticket #: 94260



Midwest Hose
& Specialty, Inc.

Hose Specifications

Hose Type
C & K
I.D.
4"
Working Pressure
10000 PSI

Length
45'
O.D.
6.09"

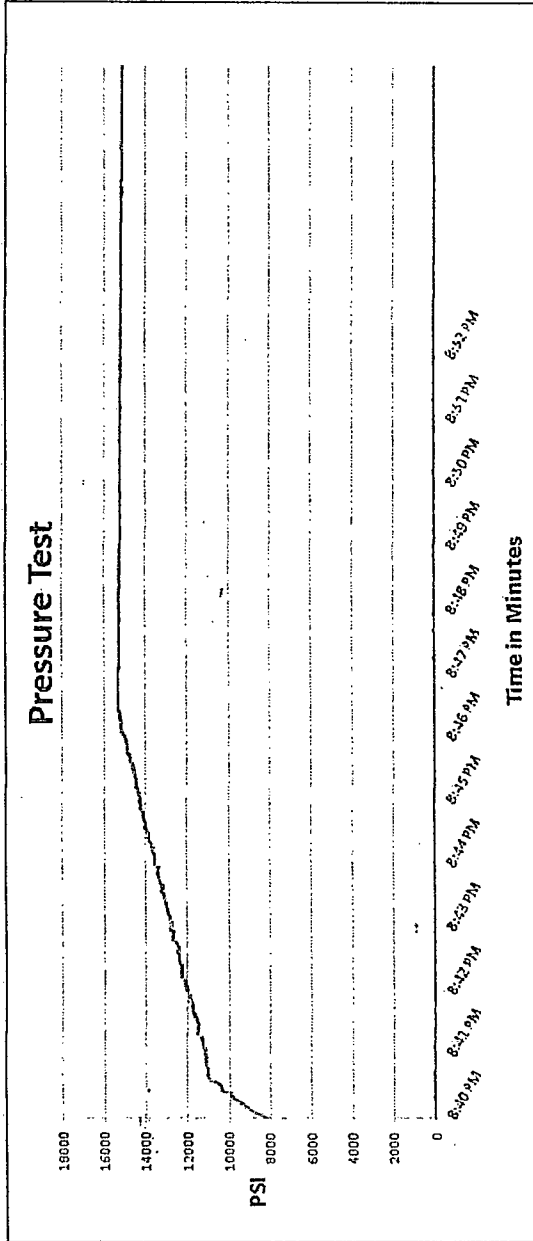
Verification

Type of Fittings
41/16 10K
Die Size
6.38"
Hose Serial #
5544
Coupling Method
Swage
Final O.D.
6.35"
Hose Assembly Serial #
79793

Burst Pressure
Standard Safety Multiplier Applies

Hose Assembly Serial #
79793

Exhibit F-1 – Co-Flex Hose Hydrostatic Test
Colibri Federal 23H
Cimarex Energy Co.
10-23S-32E
SHL 230 FNL & 2200 FEL
BHL 330 FSL & 2200 FEL
Lea County, NM



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
Colibri Federal 23H
Cimarex Energy Co.
10-23S-32E
SHL 230 FNL & 2200 FEL
BHL 330 FSL & 2200 FEL
Lea County, NM



Midwest Hose & Specialty, Inc.

Certificate of Conformity

Customer:		PO
DEM		ODYD-271
SPECIFICATIONS		
Sales Order	Dated:	
79793	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:		Date:
Jared Garcia		3/8/2011



Midwest Hose
& Specialty, Inc.

Exhibit F -3- Co-Flex Hose
Colibri Federal 23H
Cimarex Energy Co.
10-23S-32E
SHL 230 FNL & 2200 FEL
BHL 330 FSL & 2200 FEL
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)

Exhibit F – Co-Flex Hose

Colibri Federal 23H

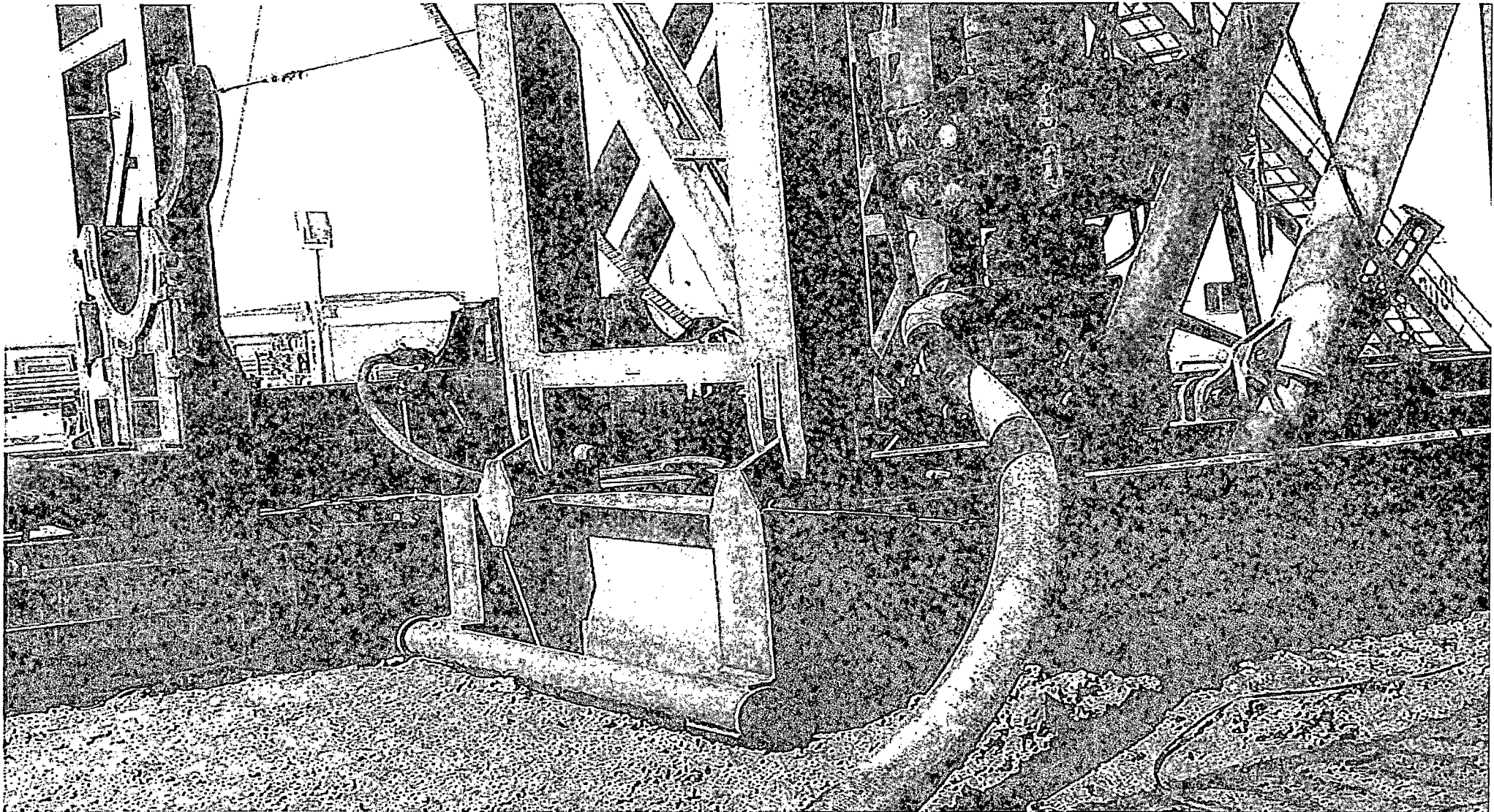
Cimarex Energy Co.

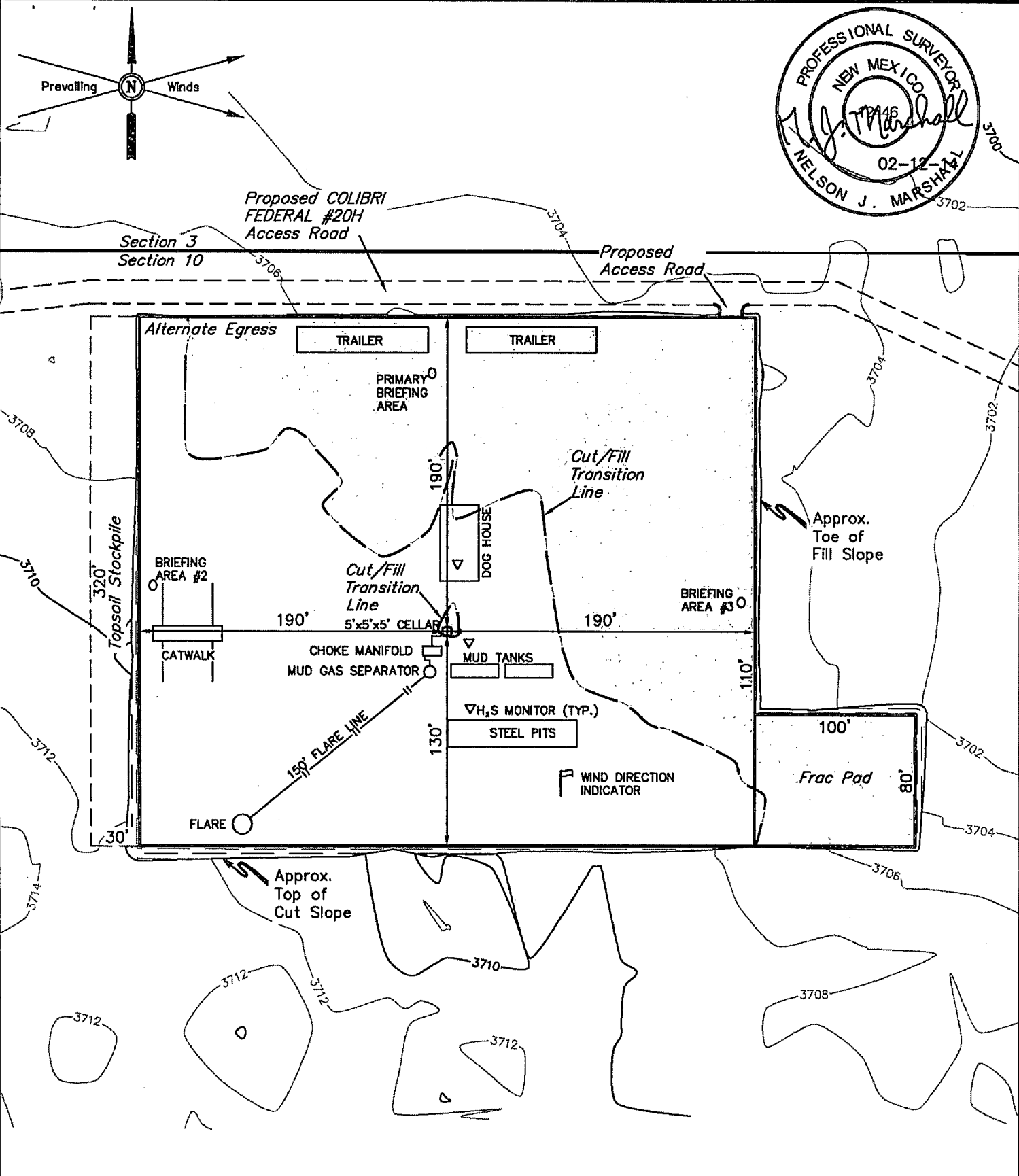
10-23S-32E

SHL 230 FNL & 2200 FEL

BHL 330 FSL & 2200 FEL

Lea County, NM





NOTES:

- Flare pit is to be located a min. of 160' from the well head.

CIMAREX

CIMAREX ENERGY CO.

COLIBRI FEDERAL #23H
SECTION 10, T23S, R32E, N.M.P.M.
230' FNL 2200' FEL

DRAWN BY: B.D.H.

SCALE: 1" = 80'

DATE: 01-16-14

REVISED: 02-12-14

TYPICAL RIG LAYOUT

EXHIBIT D



Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

Operator Certification Statement

Colibri Federal #23H

Cimarex Energy Co.

UL: B, Sec. 10, 23S, 32E

Lea Co., NM

Operator's Representative

Cimarex Energy Co. of Colorado

600 N. Marienfeld St., Ste. 600

Midland, TX 79701

Office Phone: (432) 571-7800

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 19 day of March, 2014

NAME:

Aricka Easterling
Aricka Easterling

TITLE: Regulatory Compliance

ADDRESS: 202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103

TELEPHONE: 918-585-1100

EMAIL: AEasterling@cimarex.com

Field Representative: Same as above