

OCD Hobbs

Split Estate

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

5. Lease Serial No.
SHLABHL: NM089425

6. If Indian, Allottee or Tribe Name

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.

OF COLORADO (162683)

HOBBS OCD

3a. Address

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

3b. Phone No. (include area code)

432-571-7800

DEC 09 2014

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

NM071019X

8. Lease Name and Well No.

Red Hills Unit 31H

200545

9. API Well No.

30025 42332

10. Field and Pool, or Exploratory

Bone Spring Wildcat

77994

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

At Surface

330' FNL & 1340' FEL 1350'

RECEIVED

At proposed prod. Zone

330' FSL & 2200' FEL

Bone Spring

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

4, 26S, 33E

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

Jal, NM is approx 30 miles to the southeast

12. County or Parish

Lea

13. State

NM

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

NM089425=600.00 acres

17. Spacing Unit dedicated to this well

160.00

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

20' to #32H

19. Proposed Depth

Pilot Hole TD: N/A

14,365 MD

9,875 TVD

20. BLM/BIA Bond No. on File

NM2575; NMB000835

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

3324 GR

22. Approximate date work will start*

6/1/14

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:

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

Paula Brunson

Name (Printed/Typed)

Paula Brunson

Date

3/14/14

Title

Regulatory Compliance

Steve Caffey

Approved By (Signature)

Name (Printed/Typed)

Office CARLSBAD FIELD OFFICE

Date

DEC 1 2014

Title

FIELD MANAGER

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)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL
DEC 10 2014

*(Instructions on page 2)

Application to Drill
Red Hills Unit 31H
 Cimarex Energy Co.
 UL: B, Sec. 4, 26S, 33E
 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 330' FNL & 1350' FEL
 BHL 330' FSL & 2200' FEL

2. Elevation Above Sea Level: 3,324' 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: 14,522 MD 9,875 TVD Pilot Hole TD: N/A

6. Estimated Tops of Geological Markers:

Formation	Est Top	Bearing
Rustler	995	N/A
Salt	1140	N/A
Lamar	4900	N/A
Bell Canyon	4945	N/A
Cherry Canyon	6190	N/A
Brushy Canyon	7485	N/A
Bone Spring	9045	Hydrocarbons
U. Avalon (Leonard)	9080	Hydrocarbons
L. Avalon	9680	Hydrocarbons

7. Possible Mineral Bearing Formation: Shown above

7A. OSE Ground Water Estimated Depth: 180'

8. Casing Program:

Name	Casing Depth (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	1045	1045	17 1/2	13-3/8"	48.00	H-40	ST&C	New	451	8.3	1.64		3.84	50,160	43,804	7.35
Intermediate	0	4920	4920	12 1/4	9-5/8"	40.00	J-55	LT&C	New	2558	10.0		1.50	1.54	196,800	166,754	3.12
Production	0	9235	9235	8 3/4	5-1/2"	17.00	L-80	LT&C	New	4418	9.2	1.42		1.75	167,875	144,295	2.34
Production	9235	14522	9875	8 3/4	5-1/2"	17.00	L-80	BT&C	New	4724	9.2	1.33		1.64	10,880	9,352	42.45

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: 8.30 ppg.
	Collapse	A 1.125 design factor with full internal evacuation and a collapse force equal to a 8.30 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. During the running of the casing, the operator will stop and fill the casing as need to ensure it does not collapse.
	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	498	1.75	13.50	871	Class C + Bentonite + Calcium Chloride + LCM, 8,829 gps water
	Tail	136	1.34	14.80	181	Class C + LCM, 6,320 gps water
	TOC: 0		45% Excess			Centralizers per Onshore Order 2.III.B.1f
Intermediate	Lead	897	1.88	12.90	1686	35:65 (Poz:C) + Salt + Bentonite + LCM + Retarder, 9,650 gps water
	Tail	288	1.34	14.80	385	Class C + Retarder + LCM, 6,320 gps water
	TOC: 0		44% Excess			
Production	Lead	540	2.33	11.90	1256	35:65(Poz:H) + Salt + Bentonite + Retarder + Dispersant + Antisettling Agent, 13,400 gps water
	Tail	1237	1.30	14.20	1608	50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS + Retarder + LCM, 5,860 gps water
	TOC: 4720		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: No Pilot KOP: 9,235' EOC: 10,375'

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.

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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11. Proposed Mud Circulating System:

Depth	Mud Weight	Visc	Fluid Loss	Type Mud
0' to 1048' ^{1000'}	7.80 - 8.30	28	NC	FW Spud Mud
1045' to 4920'	9.50 - 10.00	30-32	NC	Brine Water
4920' to 14522'	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 4920 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: 4444 psi

Estimated BHT: 159°

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:

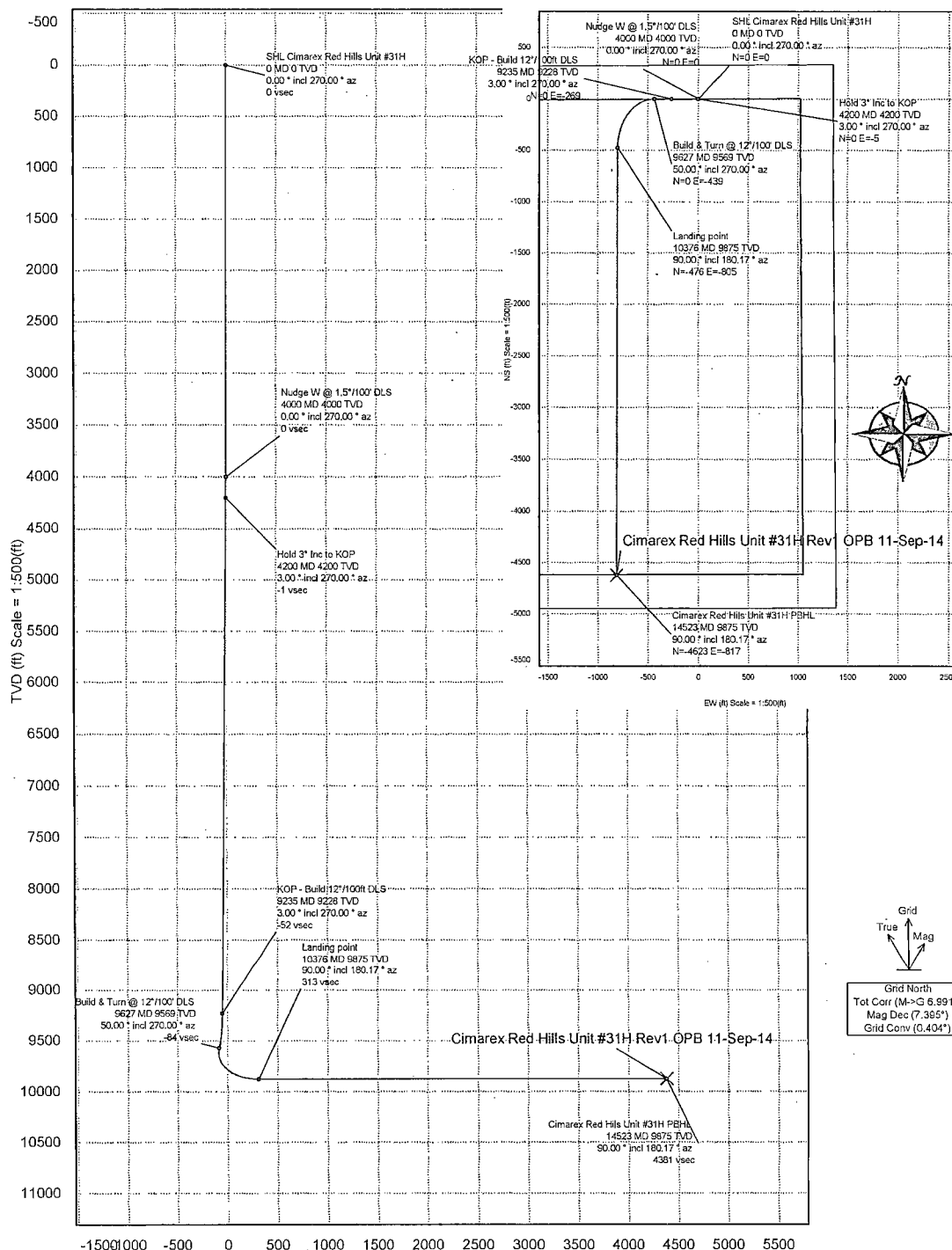
If production casing is run an additional 30 days will be required to complete and construct surface facilities.

L. Avalon pay will be perforated and stimulated.

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

Cimarex

Borehole: Original Borehole	Well: Red Hills Unit #31H	Field: NM Lea County (NAD 83)	Structure: TBD
Gravity & Magnetic Parameters Model: BIGGM 2014 Dip: 58.979° Date: 07-Feb-2014 MagDec: 7.395° FS: 48235.025nT Gravity FS: 998.687mgal (9.80665 Based)			
Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet Lat: N 32 4 43.94 Northing: 393260.31NUS Grid Conv: 0.4038° Lon: W 103 24 23.06 Easting: 776810.41NUS Scale Fact: 0.9999726			
Miscellaneous Red Hills Unit Slot: #31H Plan: Rev1 OPB 11-Sep-14 TVD Ref: Ground level(3324ft above MSL)			



Vertical Section (ft) Azim = 168.93° Scale = 1:500(ft) Origin = 0N/-S, 0E/-W

Critical Points							
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(-)S(+)	E(-)W(+)
SHL Cimarex Red Hills Unit #31H	0.00	0.00	270.00	0.00	0.00	0.00	0.00
Nudge W @ 1.5°/100' DLS	4000.00	0.00	270.00	4000.00	0.00	0.00	0.00
Hold 3° Inc to KOP	4200.00	3.00	270.00	4199.91	0.91	0.00	-5.23
KOP - Build 12°/100' DLS	9234.99	3.00	270.00	9228.00	45.77	0.00	-289.75
Build & Turn @ 12°/100' DLS	9626.66	50.00	270.00	9588.77	76.34	0.00	-436.65
Landing point	10375.50	90.00	180.16	9875.00	608.23	-476.41	-804.97
Cimarex Red Hills Unit #31H PBHL	14522.65	90.00	180.17	9875.00	4695.09	-4623.44	-817.12



Cimarex Red Hills Unit #31H Rev1 OPB 11-Sep-14 Proposal Report

(Non-Def Plan)

Report Date: September 11, 2014 - 11:19 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Cimarex Red Hills Unit #31H
Well: Red Hills Unit #31H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Red Hills Unit #31H Rev1 OPB 11-Sep-14
Survey Date: February 07, 2014

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 190.023 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground level
TVD Reference Elevation: 3324.000 ft above MSL
Seabed / Ground Elevation: 3324.000 ft above MSL
Magnetic Declination: 7.395 °
Total Gravity Field Strength: 998.6873mgn (9.80665 Based)
Gravity Model: DOX

Tort / AHD / DDI / ERD Ratio: 139.879 ° / 5250.057 ft / 6.033 / 0.532

Total Magnetic Field Strength: 48239.025 nT

Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet

Magnetic Dip Angle: 59.979 °

Location Lat / Long: N 32° 4' 43.93677", W 103° 34' 23.06050"

Declination Date: February 07, 2014

Location Grid N/E Y/X: N 393260.300 ftUS, E 776810.400 ftUS

Magnetic Declination Model: BGGM 2014

CRS Grid Convergence Angle: 0.4038 °

North Reference: Grid North

Grid Scale Factor: 0.9999726

Grid Convergence Used: 0.4038 °

Version / Patch: 2.7.1043.0

Total Corr Mag North->Grid North: 6.9909 °

Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL Cimarex Red Hills Unit	0.00	0.00	270.00	0.00	-3324.00	0.00	N/A	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	100.00	0.00	270.00	100.00	-3224.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	200.00	0.00	270.00	200.00	-3124.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	300.00	0.00	270.00	300.00	-3024.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	400.00	0.00	270.00	400.00	-2924.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	500.00	0.00	270.00	500.00	-2824.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	600.00	0.00	270.00	600.00	-2724.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	700.00	0.00	270.00	700.00	-2624.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	800.00	0.00	270.00	800.00	-2524.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	900.00	0.00	270.00	900.00	-2424.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1000.00	0.00	270.00	1000.00	-2324.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1100.00	0.00	270.00	1100.00	-2224.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1200.00	0.00	270.00	1200.00	-2124.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1300.00	0.00	270.00	1300.00	-2024.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1400.00	0.00	270.00	1400.00	-1924.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1500.00	0.00	270.00	1500.00	-1824.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1600.00	0.00	270.00	1600.00	-1724.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1700.00	0.00	270.00	1700.00	-1624.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1800.00	0.00	270.00	1800.00	-1524.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	1900.00	0.00	270.00	1900.00	-1424.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2000.00	0.00	270.00	2000.00	-1324.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2100.00	0.00	270.00	2100.00	-1224.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	2200.00	0.00	270.00	2200.00	-1124.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2300.00	0.00	270.00	2300.00	-1024.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2400.00	0.00	270.00	2400.00	-924.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2500.00	0.00	270.00	2500.00	-824.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2600.00	0.00	270.00	2600.00	-724.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2700.00	0.00	270.00	2700.00	-624.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2800.00	0.00	270.00	2800.00	-524.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	2900.00	0.00	270.00	2900.00	-424.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3000.00	0.00	270.00	3000.00	-324.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3100.00	0.00	270.00	3100.00	-224.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3200.00	0.00	270.00	3200.00	-124.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3300.00	0.00	270.00	3300.00	-24.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3400.00	0.00	270.00	3400.00	76.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3500.00	0.00	270.00	3500.00	176.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3600.00	0.00	270.00	3600.00	276.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3700.00	0.00	270.00	3700.00	376.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3800.00	0.00	270.00	3800.00	476.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	3900.00	0.00	270.00	3900.00	576.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
Nudge W @ 1.5"/100' DLS	4000.00	0.00	270.00	4000.00	676.00	0.00	0.00	0.00	0.00	393260.30	776810.40	N 32 4 43.94	W 103 34 23.06
	4100.00	1.50	270.00	4099.99	775.99	0.23	1.50	0.00	-1.31	393260.30	776809.09	N 32 4 43.94	W 103 34 23.08
Hold 3° Inc to KOP	4200.00	3.00	270.00	4199.91	875.91	0.91	1.50	0.00	-5.23	393260.30	776805.17	N 32 4 43.94	W 103 34 23.12
	4300.00	3.00	270.00	4299.77	975.77	1.82	0.00	0.00	-10.47	393260.30	776799.93	N 32 4 43.94	W 103 34 23.18
	4400.00	3.00	270.00	4399.63	1075.63	2.73	0.00	0.00	-15.70	393260.30	776794.70	N 32 4 43.94	W 103 34 23.24
	4500.00	3.00	270.00	4499.50	1175.50	3.64	0.00	0.00	-20.94	393260.30	776789.47	N 32 4 43.94	W 103 34 23.30
	4600.00	3.00	270.00	4599.36	1275.36	4.55	0.00	0.00	-26.17	393260.30	776784.23	N 32 4 43.94	W 103 34 23.36
	4700.00	3.00	270.00	4699.22	1375.22	5.47	0.00	0.00	-31.40	393260.30	776779.00	N 32 4 43.94	W 103 34 23.43
	4800.00	3.00	270.00	4799.09	1475.09	6.38	0.00	0.00	-36.64	393260.30	776773.76	N 32 4 43.94	W 103 34 23.49
	4900.00	3.00	270.00	4898.95	1574.95	7.29	0.00	0.00	-41.87	393260.30	776768.53	N 32 4 43.94	W 103 34 23.55
	5000.00	3.00	270.00	4998.81	1674.81	8.20	0.00	0.00	-47.10	393260.30	776763.30	N 32 4 43.94	W 103 34 23.61
	5100.00	3.00	270.00	5098.68	1774.68	9.11	0.00	0.00	-52.34	393260.30	776758.06	N 32 4 43.94	W 103 34 23.67
	5200.00	3.00	270.00	5198.54	1874.54	10.02	0.00	0.00	-57.57	393260.30	776752.83	N 32 4 43.94	W 103 34 23.73
	5300.00	3.00	270.00	5298.40	1974.40	10.93	0.00	0.00	-62.80	393260.30	776747.60	N 32 4 43.94	W 103 34 23.79
	5400.00	3.00	270.00	5398.26	2074.26	11.84	0.00	0.00	-68.04	393260.30	776742.36	N 32 4 43.94	W 103 34 23.85
	5500.00	3.00	270.00	5498.13	2174.13	12.75	0.00	0.00	-73.27	393260.30	776737.13	N 32 4 43.94	W 103 34 23.91
	5600.00	3.00	270.00	5597.99	2273.99	13.66	0.00	0.00	-78.51	393260.30	776731.90	N 32 4 43.94	W 103 34 23.97
	5700.00	3.00	270.00	5697.85	2373.85	14.57	0.00	0.00	-83.74	393260.30	776726.66	N 32 4 43.94	W 103 34 24.03
	5800.00	3.00	270.00	5797.72	2473.72	15.48	0.00	0.00	-88.97	393260.30	776721.43	N 32 4 43.94	W 103 34 24.09
	5900.00	3.00	270.00	5897.58	2573.58	16.40	0.00	0.00	-94.21	393260.30	776716.20	N 32 4 43.94	W 103 34 24.16
	6000.00	3.00	270.00	5997.44	2673.44	17.31	0.00	0.00	-99.44	393260.30	776710.96	N 32 4 43.94	W 103 34 24.22
	6100.00	3.00	270.00	6097.30	2773.30	18.22	0.00	0.00	-104.67	393260.30	776705.73	N 32 4 43.94	W 103 34 24.28
	6200.00	3.00	270.00	6197.17	2873.17	19.13	0.00	0.00	-109.91	393260.30	776700.50	N 32 4 43.94	W 103 34 24.34
	6300.00	3.00	270.00	6297.03	2973.03	20.04	0.00	0.00	-115.14	393260.30	776695.26	N 32 4 43.94	W 103 34 24.40
	6400.00	3.00	270.00	6396.89	3072.89	20.95	0.00	0.00	-120.37	393260.30	776690.03	N 32 4 43.95	W 103 34 24.46
	6500.00	3.00	270.00	6496.76	3172.76	21.86	0.00	0.00	-125.61	393260.30	776684.80	N 32 4 43.95	W 103 34 24.52
	6600.00	3.00	270.00	6596.62	3272.62	22.77	0.00	0.00	-130.84	393260.30	776679.56	N 32 4 43.95	W 103 34 24.58
	6700.00	3.00	270.00	6696.48	3372.48	23.68	0.00	0.00	-136.07	393260.30	776674.33	N 32 4 43.95	W 103 34 24.64
	6800.00	3.00	270.00	6796.35	3472.35	24.59	0.00	0.00	-141.31	393260.30	776669.10	N 32 4 43.95	W 103 34 24.70
	6900.00	3.00	270.00	6896.21	3572.21	25.50	0.00	0.00	-146.54	393260.30	776663.86	N 32 4 43.95	W 103 34 24.76
	7000.00	3.00	270.00	6996.07	3672.07	26.41	0.00	0.00	-151.78	393260.30	776658.63	N 32 4 43.95	W 103 34 24.82
	7100.00	3.00	270.00	7095.93	3771.93	27.33	0.00	0.00	-157.01	393260.30	776653.40	N 32 4 43.95	W 103 34 24.89
	7200.00	3.00	270.00	7195.80	3871.80	28.24	0.00	0.00	-162.24	393260.30	776648.16	N 32 4 43.95	W 103 34 24.95

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7300.00	3.00	270.00	7295.66	3971.66	29.15	0.00	0.00	-167.48	393260.30	776642.93	N 32 4 43.95	W 103 34 25.01
	7400.00	3.00	270.00	7395.52	4071.52	30.06	0.00	0.00	-172.71	393260.30	776637.70	N 32 4 43.95	W 103 34 25.07
	7500.00	3.00	270.00	7495.39	4171.39	30.97	0.00	0.00	-177.94	393260.30	776632.46	N 32 4 43.95	W 103 34 25.13
	7600.00	3.00	270.00	7595.25	4271.25	31.88	0.00	0.00	-183.18	393260.30	776627.23	N 32 4 43.95	W 103 34 25.19
	7700.00	3.00	270.00	7695.11	4371.11	32.79	0.00	0.00	-188.41	393260.30	776621.99	N 32 4 43.95	W 103 34 25.25
	7800.00	3.00	270.00	7794.97	4470.97	33.70	0.00	0.00	-193.64	393260.30	776616.76	N 32 4 43.95	W 103 34 25.31
	7900.00	3.00	270.00	7894.84	4570.84	34.61	0.00	0.00	-198.88	393260.30	776611.53	N 32 4 43.95	W 103 34 25.37
	8000.00	3.00	270.00	7994.70	4670.70	35.52	0.00	0.00	-204.11	393260.30	776606.29	N 32 4 43.95	W 103 34 25.43
	8100.00	3.00	270.00	8094.56	4770.56	36.43	0.00	0.00	-209.35	393260.30	776601.06	N 32 4 43.95	W 103 34 25.49
	8200.00	3.00	270.00	8194.43	4870.43	37.34	0.00	0.00	-214.58	393260.30	776595.83	N 32 4 43.95	W 103 34 25.55
	8300.00	3.00	270.00	8294.29	4970.29	38.26	0.00	0.00	-219.81	393260.30	776590.59	N 32 4 43.95	W 103 34 25.62
	8400.00	3.00	270.00	8394.15	5070.15	39.17	0.00	0.00	-225.05	393260.30	776585.36	N 32 4 43.95	W 103 34 25.68
	8500.00	3.00	270.00	8494.02	5170.02	40.08	0.00	0.00	-230.28	393260.30	776580.13	N 32 4 43.95	W 103 34 25.74
	8600.00	3.00	270.00	8593.88	5269.88	40.99	0.00	0.00	-235.51	393260.30	776574.89	N 32 4 43.95	W 103 34 25.80
	8700.00	3.00	270.00	8693.74	5369.74	41.90	0.00	0.00	-240.75	393260.30	776569.66	N 32 4 43.95	W 103 34 25.86
	8800.00	3.00	270.00	8793.60	5469.60	42.81	0.00	0.00	-245.98	393260.30	776564.43	N 32 4 43.95	W 103 34 25.92
	8900.00	3.00	270.00	8893.47	5569.47	43.72	0.00	0.00	-251.21	393260.30	776559.19	N 32 4 43.95	W 103 34 25.98
	9000.00	3.00	270.00	8993.33	5669.33	44.63	0.00	0.00	-256.45	393260.30	776553.96	N 32 4 43.95	W 103 34 26.04
	9100.00	3.00	270.00	9093.19	5769.19	45.54	0.00	0.00	-261.68	393260.30	776548.73	N 32 4 43.96	W 103 34 26.10
	9200.00	3.00	270.00	9193.06	5869.06	46.45	0.00	0.00	-266.91	393260.30	776543.49	N 32 4 43.96	W 103 34 26.16
KOP - Build 12°/100ft DLS	9234.99	3.00	270.00	9228.00	5904.00	46.77	0.00	0.00	-268.75	393260.30	776541.66	N 32 4 43.96	W 103 34 26.18
	9300.00	10.80	270.00	9292.49	5968.49	48.13	12.00	0.00	-276.55	393260.30	776533.86	N 32 4 43.96	W 103 34 26.27
	9400.00	22.80	270.00	9388.04	6064.04	53.15	12.00	0.00	-305.40	393260.30	776505.01	N 32 4 43.96	W 103 34 26.61
	9500.00	34.80	270.00	9475.51	6151.51	61.52	12.00	0.00	-353.49	393260.30	776456.92	N 32 4 43.96	W 103 34 27.17
	9600.00	46.80	270.00	9551.07	6227.07	72.87	12.00	0.00	-418.72	393260.30	776391.70	N 32 4 43.97	W 103 34 27.93
Build & Turn @ 12°/100' DLS	9626.66	50.00	270.00	9568.77	6244.77	76.34	12.00	0.00	-438.65	393260.30	776371.76	N 32 4 43.97	W 103 34 28.16
	9700.00	50.58	258.58	9615.72	6291.72	91.62	12.00	-5.62	-494.62	393254.68	776315.80	N 32 4 43.92	W 103 34 28.81
	9800.00	53.10	243.64	9677.72	6353.72	129.60	12.00	-31.12	-568.57	393229.18	776241.84	N 32 4 43.67	W 103 34 29.67
	9900.00	57.35	229.95	9734.92	6410.92	185.81	12.00	-76.13	-636.88	393184.17	776173.54	N 32 4 43.23	W 103 34 30.47
	10000.00	62.93	217.69	9784.84	6460.84	257.79	12.00	-138.68	-696.54	393121.63	776113.88	N 32 4 42.61	W 103 34 31.17
	10100.00	69.47	206.68	9825.28	6501.28	342.39	12.00	-216.03	-744.96	393044.28	776065.46	N 32 4 41.85	W 103 34 31.74
	10200.00	76.64	196.61	9854.48	6530.48	435.91	12.00	-304.81	-780.02	392955.50	776030.41	N 32 4 40.97	W 103 34 32.15
	10300.00	84.18	187.14	9871.16	6547.16	534.28	12.00	-401.14	-800.18	392859.17	776010.25	N 32 4 40.02	W 103 34 32.39
Landing point	10375.60	90.00	180.17	9875.00	6551.00	609.23	12.00	-476.41	-804.97	392783.91	776005.45	N 32 4 39.28	W 103 34 32.45
	10400.00	90.00	180.17	9875.00	6551.00	633.27	0.00	-500.81	-805.04	392759.51	776005.38	N 32 4 39.04	W 103 34 32.46
	10500.00	90.00	180.17	9875.00	6551.00	731.80	0.00	-600.81	-805.33	392659.51	776005.10	N 32 4 38.05	W 103 34 32.47
	10600.00	90.00	180.17	9875.00	6551.00	830.32	0.00	-700.81	-805.62	392559.51	776004.81	N 32 4 37.06	W 103 34 32.48
	10700.00	90.00	180.17	9875.00	6551.00	928.84	0.00	-800.81	-805.91	392459.52	776004.52	N 32 4 36.07	W 103 34 32.49
	10800.00	90.00	180.17	9875.00	6551.00	1027.37	0.00	-900.81	-806.19	392359.52	776004.23	N 32 4 35.08	W 103 34 32.50
	10900.00	90.00	180.17	9875.00	6551.00	1125.89	0.00	-1000.81	-806.48	392259.52	776003.94	N 32 4 34.09	W 103 34 32.52
	11000.00	90.00	180.17	9875.00	6551.00	1224.42	0.00	-1100.81	-806.77	392159.53	776003.65	N 32 4 33.10	W 103 34 32.53
	11100.00	90.00	180.17	9875.00	6551.00	1322.94	0.00	-1200.81	-807.06	392059.53	776003.36	N 32 4 32.11	W 103 34 32.54
	11200.00	90.00	180.17	9875.00	6551.00	1421.46	0.00	-1300.80	-807.35	391959.53	776003.07	N 32 4 31.12	W 103 34 32.55
	11300.00	90.00	180.17	9875.00	6551.00	1519.99	0.00	-1400.80	-807.64	391859.54	776002.78	N 32 4 30.13	W 103 34 32.56
	11400.00	90.00	180.17	9875.00	6551.00	1618.51	0.00	-1500.80	-807.93	391759.54	776002.49	N 32 4 29.14	W 103 34 32.57
	11500.00	90.00	180.17	9875.00	6551.00	1717.04	0.00	-1600.80	-808.22	391659.54	776002.20	N 32 4 28.15	W 103 34 32.58
	11600.00	90.00	180.17	9875.00	6551.00	1815.56	0.00	-1700.80	-808.51	391559.55	776001.91	N 32 4 27.16	W 103 34 32.60
	11700.00	90.00	180.17	9875.00	6551.00	1914.08	0.00	-1800.80	-808.81	391459.55	776001.62	N 32 4 26.17	W 103 34 32.61
	11800.00	90.00	180.17	9875.00	6551.00	2012.61	0.00	-1900.80	-809.10	391359.55	776001.33	N 32 4 25.18	W 103 34 32.62
	11900.00	90.00	180.17	9875.00	6551.00	2111.13	0.00	-2000.80	-809.39	391259.56	776001.04	N 32 4 24.19	W 103 34 32.63
	12000.00	90.00	180.17	9875.00	6551.00	2209.66	0.00	-2100.80	-809.68	391159.56	776000.74	N 32 4 23.21	W 103 34 32.64

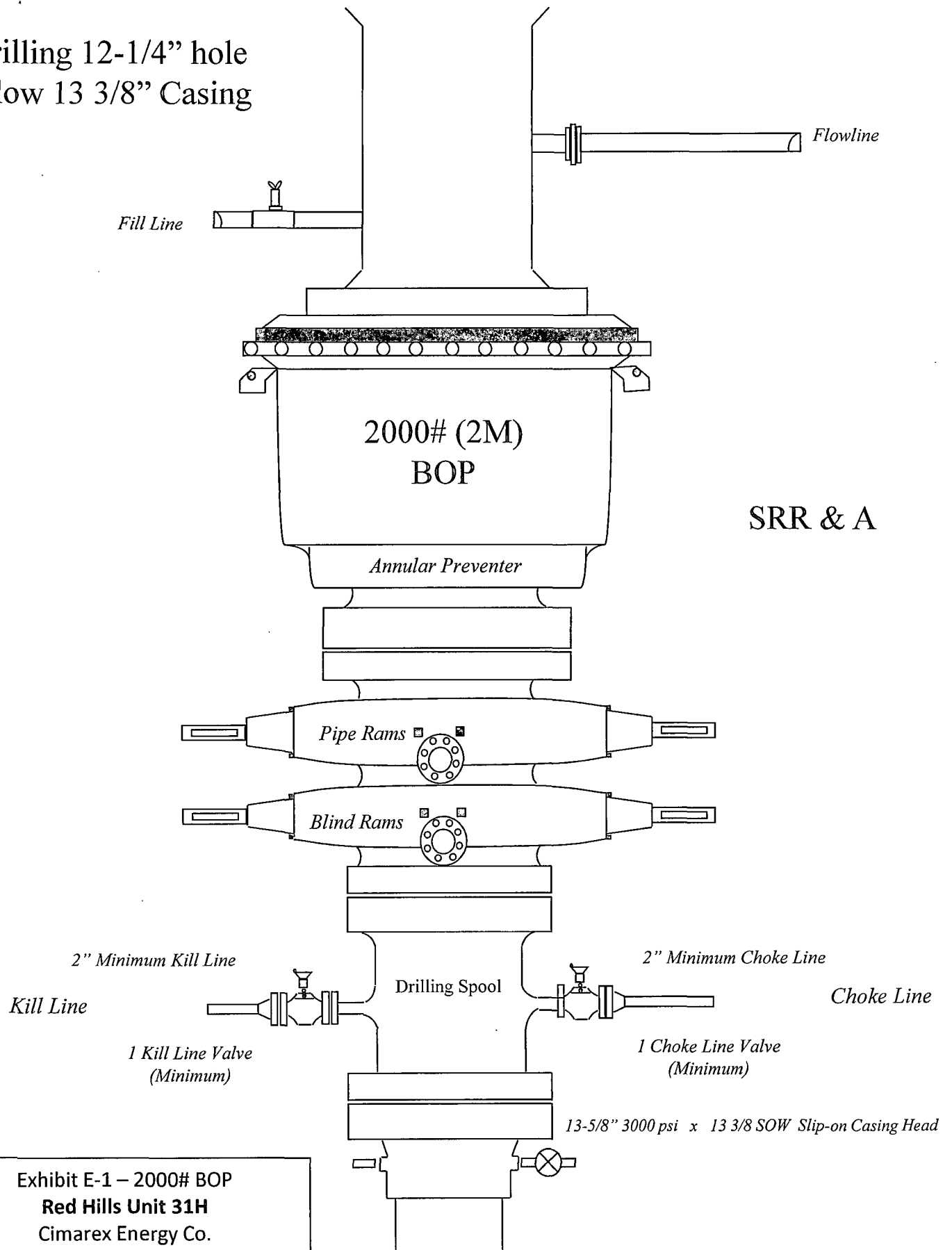
Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	12100.00	90.00	180.17	9875.00	6551.00	2308.18	0.00	-2200.80	-809.97	391059.56	776000.45	N 32 4 22.22	W 103 34 32.65
	12200.00	90.00	180.17	9875.00	6551.00	2406.70	0.00	-2300.80	-810.26	390959.57	776000.16	N 32 4 21.23	W 103 34 32.67
	12300.00	90.00	180.17	9875.00	6551.00	2505.23	0.00	-2400.80	-810.56	390859.57	775999.87	N 32 4 20.24	W 103 34 32.68
	12400.00	90.00	180.17	9875.00	6551.00	2603.75	0.00	-2500.80	-810.85	390759.57	775999.57	N 32 4 19.25	W 103 34 32.69
	12500.00	90.00	180.17	9875.00	6551.00	2702.28	0.00	-2600.80	-811.14	390659.58	775999.28	N 32 4 18.26	W 103 34 32.70
	12600.00	90.00	180.17	9875.00	6551.00	2800.80	0.00	-2700.80	-811.44	390559.58	775998.99	N 32 4 17.27	W 103 34 32.71
	12700.00	90.00	180.17	9875.00	6551.00	2899.33	0.00	-2800.80	-811.73	390459.58	775998.69	N 32 4 16.28	W 103 34 32.72
	12800.00	90.00	180.17	9875.00	6551.00	2997.85	0.00	-2900.80	-812.02	390359.59	775998.40	N 32 4 15.29	W 103 34 32.73
	12900.00	90.00	180.17	9875.00	6551.00	3096.38	0.00	-3000.80	-812.32	390259.59	775998.11	N 32 4 14.30	W 103 34 32.75
	13000.00	90.00	180.17	9875.00	6551.00	3194.90	0.00	-3100.80	-812.61	390159.59	775997.81	N 32 4 13.31	W 103 34 32.76
	13100.00	90.00	180.17	9875.00	6551.00	3293.43	0.00	-3200.80	-812.91	390059.60	775997.52	N 32 4 12.32	W 103 34 32.77
	13200.00	90.00	180.17	9875.00	6551.00	3391.95	0.00	-3300.80	-813.20	389959.60	775997.22	N 32 4 11.33	W 103 34 32.78
	13300.00	90.00	180.17	9875.00	6551.00	3490.48	0.00	-3400.80	-813.50	389859.60	775996.93	N 32 4 10.34	W 103 34 32.79
	13400.00	90.00	180.17	9875.00	6551.00	3589.00	0.00	-3500.80	-813.79	389759.61	775996.63	N 32 4 9.35	W 103 34 32.80
	13500.00	90.00	180.17	9875.00	6551.00	3687.53	0.00	-3600.79	-814.09	389659.61	775996.34	N 32 4 8.36	W 103 34 32.82
	13600.00	90.00	180.17	9875.00	6551.00	3786.05	0.00	-3700.79	-814.38	389559.61	775996.04	N 32 4 7.37	W 103 34 32.83
	13700.00	90.00	180.17	9875.00	6551.00	3884.58	0.00	-3800.79	-814.68	389459.62	775995.74	N 32 4 6.38	W 103 34 32.84
	13800.00	90.00	180.17	9875.00	6551.00	3983.10	0.00	-3900.79	-814.98	389359.62	775995.45	N 32 4 5.39	W 103 34 32.85
	13900.00	90.00	180.17	9875.00	6551.00	4081.63	0.00	-4000.79	-815.27	389259.62	775995.15	N 32 4 4.41	W 103 34 32.86
	14000.00	90.00	180.17	9875.00	6551.00	4180.15	0.00	-4100.79	-815.57	389159.63	775994.86	N 32 4 3.42	W 103 34 32.87
	14100.00	90.00	180.17	9875.00	6551.00	4278.68	0.00	-4200.79	-815.87	389059.63	775994.56	N 32 4 2.43	W 103 34 32.89
	14200.00	90.00	180.17	9875.00	6551.00	4377.20	0.00	-4300.79	-816.16	388959.63	775994.26	N 32 4 1.44	W 103 34 32.90
	14300.00	90.00	180.17	9875.00	6551.00	4475.73	0.00	-4400.79	-816.46	388859.64	775993.96	N 32 4 0.45	W 103 34 32.91
	14400.00	90.00	180.17	9875.00	6551.00	4574.25	0.00	-4500.79	-816.76	388759.64	775993.67	N 32 3 59.46	W 103 34 32.92
	14500.00	90.00	180.17	9875.00	6551.00	4672.78	0.00	-4600.79	-817.06	388659.64	775993.37	N 32 3 58.47	W 103 34 32.93
Cimarex Red Hills Unit #31H PBHL	14522.65	90.00	180.17	9875.00	6551.00	4695.09	0.00	-4623.44	-817.12	388637.00	775993.30	N 32 3 58.24	W 103 34 32.93

Survey Type: Non-Def Plan

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	9397.000	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Red Hills Unit #31H Rev1 OPB 11-Sep-
	1	9397.000	14522.646	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Red Hills Unit #31H Rev1 OPB 11-Sep-

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



SRR & A

Exhibit E-1 – 2000# BOP

Red Hills Unit 31H

Cimarex Energy Co.

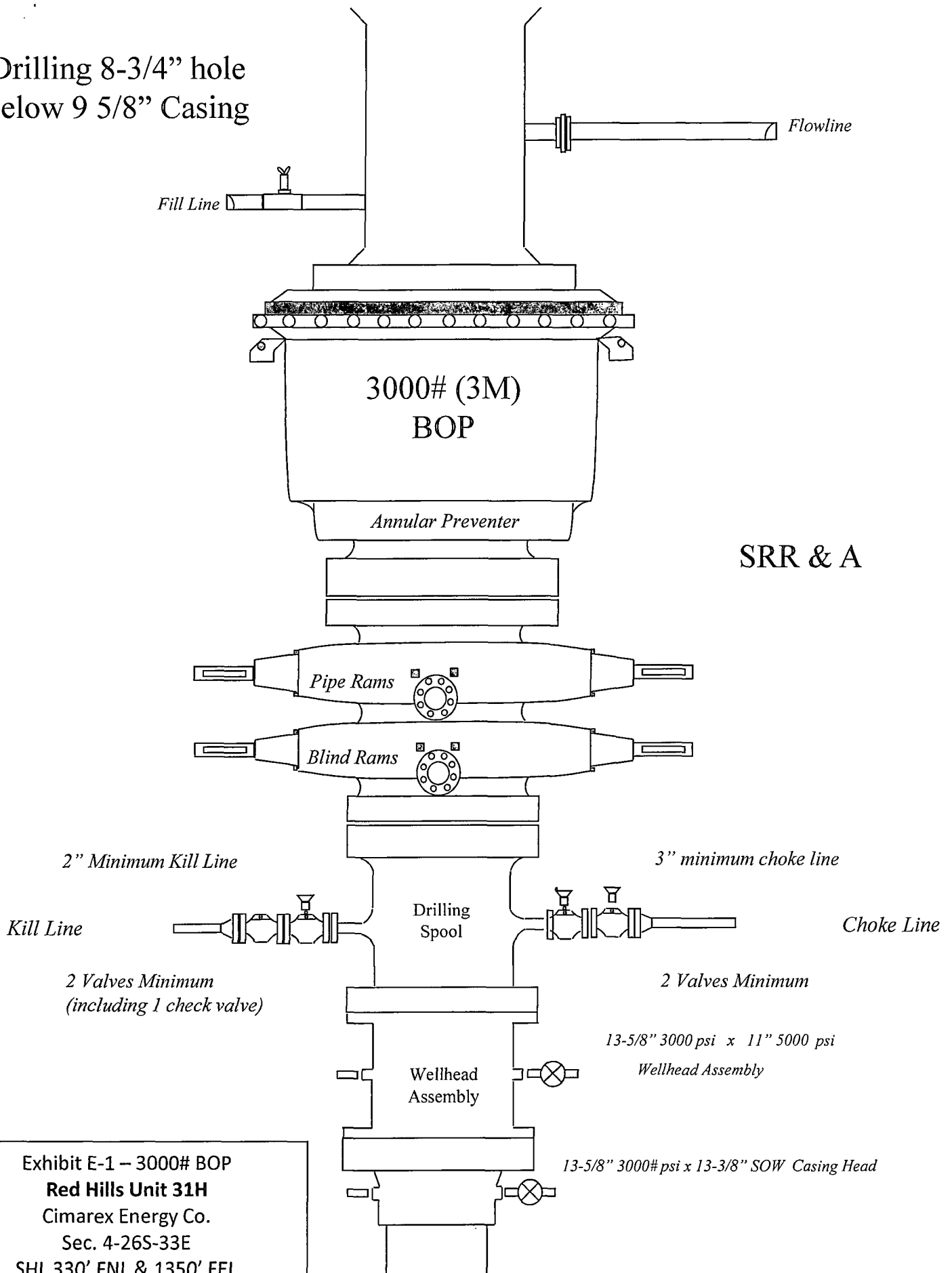
Sec. 4-26S-33E

SHL 330' FNL & 1350' FEL

BHL 330' FSL & 2200' FEL

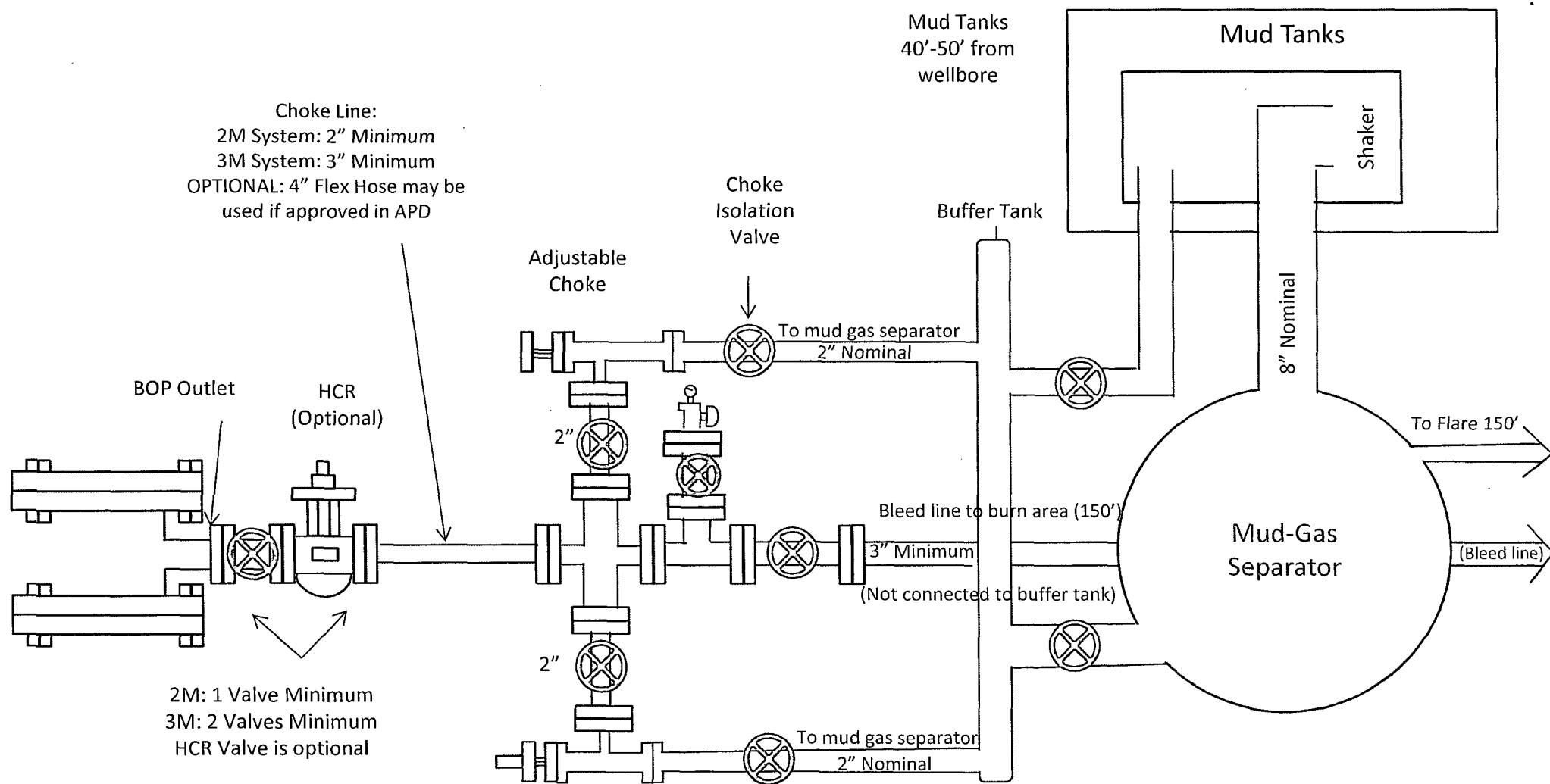
Lea County, NM

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



SRR & A

Exhibit E-1 -- 3000# BOP
Red Hills Unit 31H
Cimarex Energy Co.
Sec. 4-26S-33E
SHL 330' FNL & 1350' FEL
BHL 330' FSL & 2200' FEL
Lea County, NM



Drilling Operations Choke Manifold 2M/3M Service

Exhibit E-1 – Choke Manifold Diagram
Red Hills Unit 31H
 Cimarex Energy Co.
 Sec. 4-26S-33E
 SHL 330' FNL & 1350' FEL
 BHL 330' FSL & 2200' FEL
 Lea County, NM

Exhibit F – Co-Flex Hose
Red Hills Unit 31H
Cimarex Energy Co.
Sec. 4-26S-33E
SHL 330' FNL & 1350' FEL
BHL 330' FSL & 2200' FEL
Lea County, NM

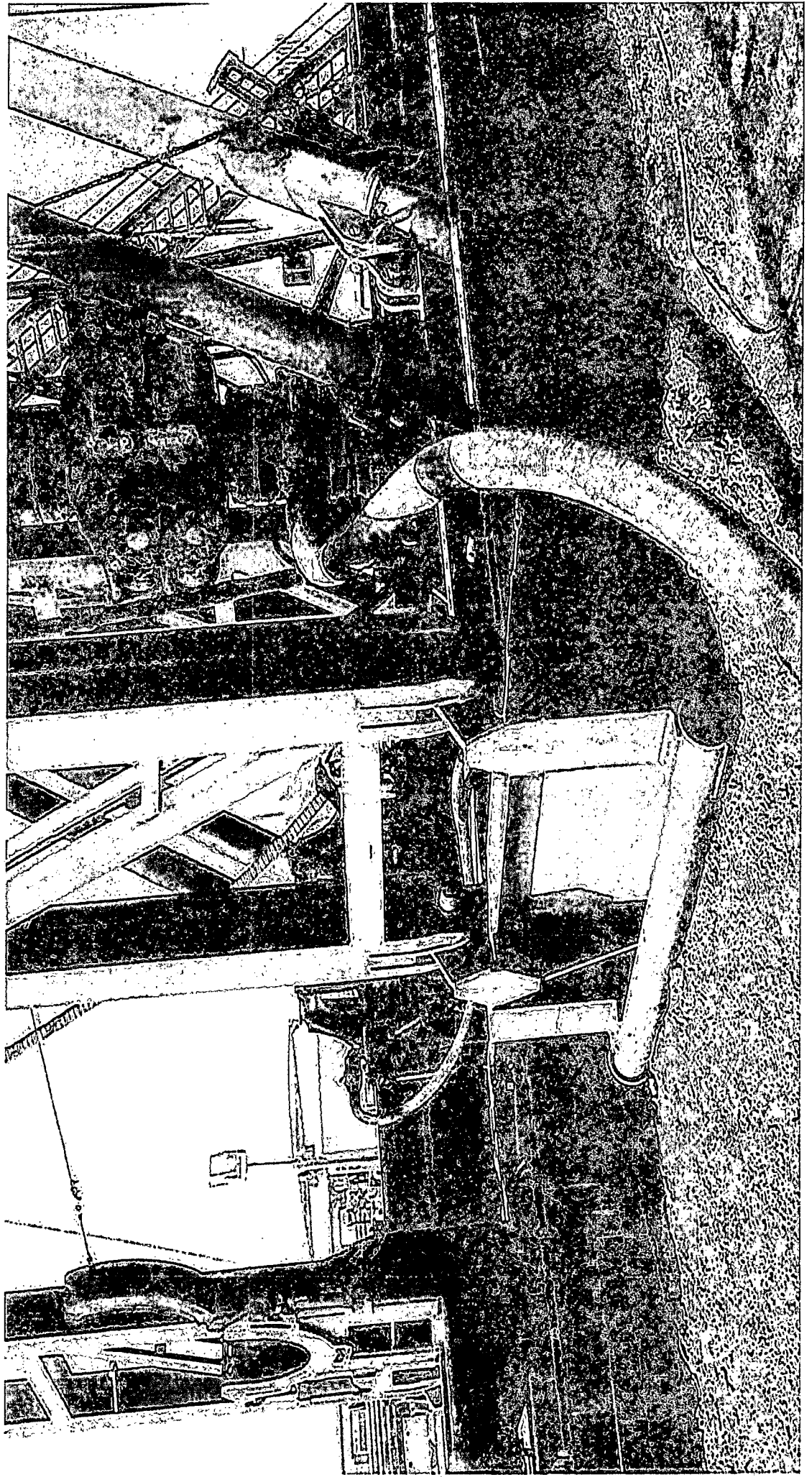


Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Red Hills Unit 31H

Cimarex Energy Co.

Sec. 4-26S-33E

SHL 330' FNL & 1350' 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			
<u>Hose assembly pressure tested with water at ambient temperature.</u>			
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 Gomez</i>	<i>Kevin Pelt</i>	



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

Pick Ticket #: 94260

Hose Specifications

Hose Type
C.S.K.

I.D.
4"

Working Pressure
10000 PSI

Length
45'

O.D.
6.09"

Burst Pressure
Standard Safety Multiplier Applies

Verification

Type of Fitting
4 1/16 10K

Die Size
6.38"

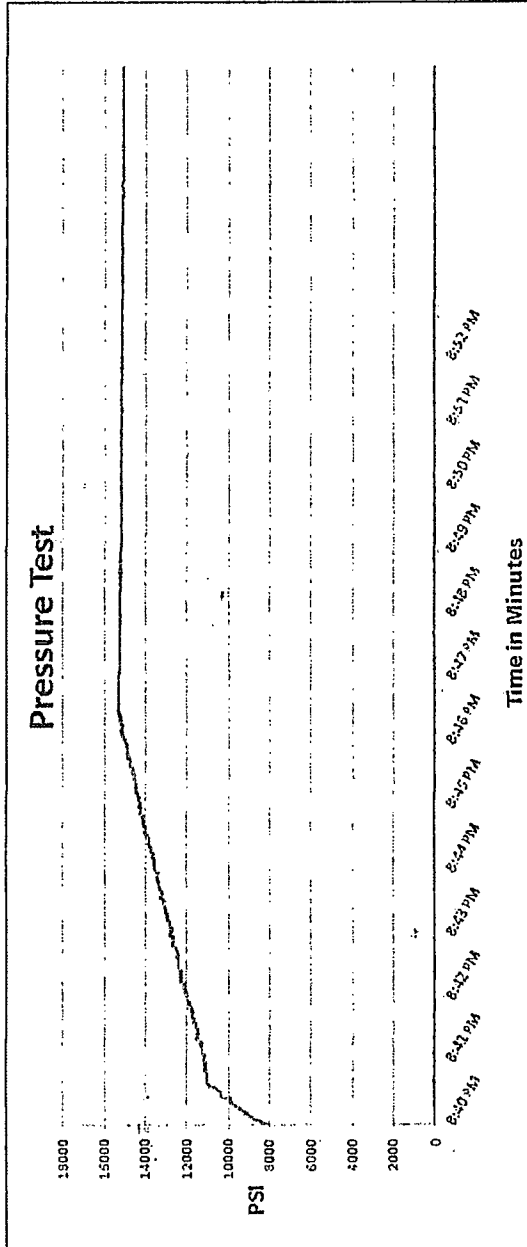
Hose Serial #
5544

Coupling Method
Swage

Final O.D.
6.25"

Hose Assembly Serial #
79793

Exhibit F-1 – Co-Flex Hose Hydrostatic Test
Red Hills Unit 31H
Cimarex Energy Co.
Sec. 4-26S-33E
SHL 330' FNL & 1350' FEL
BHL 330' FSL & 2200' FEL
Lea County, NM



Test Pressure 15000 PSI
Time Held at Test Pressure 11 Minutes
Actual Burst Pressure 15483 PSI
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
Red Hills Unit 31H
Cimarex Energy Co.
Sec. 4-26S-33E
SHL 330' FNL & 1350' 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:
<i>James Garcia</i>		3/8/2011



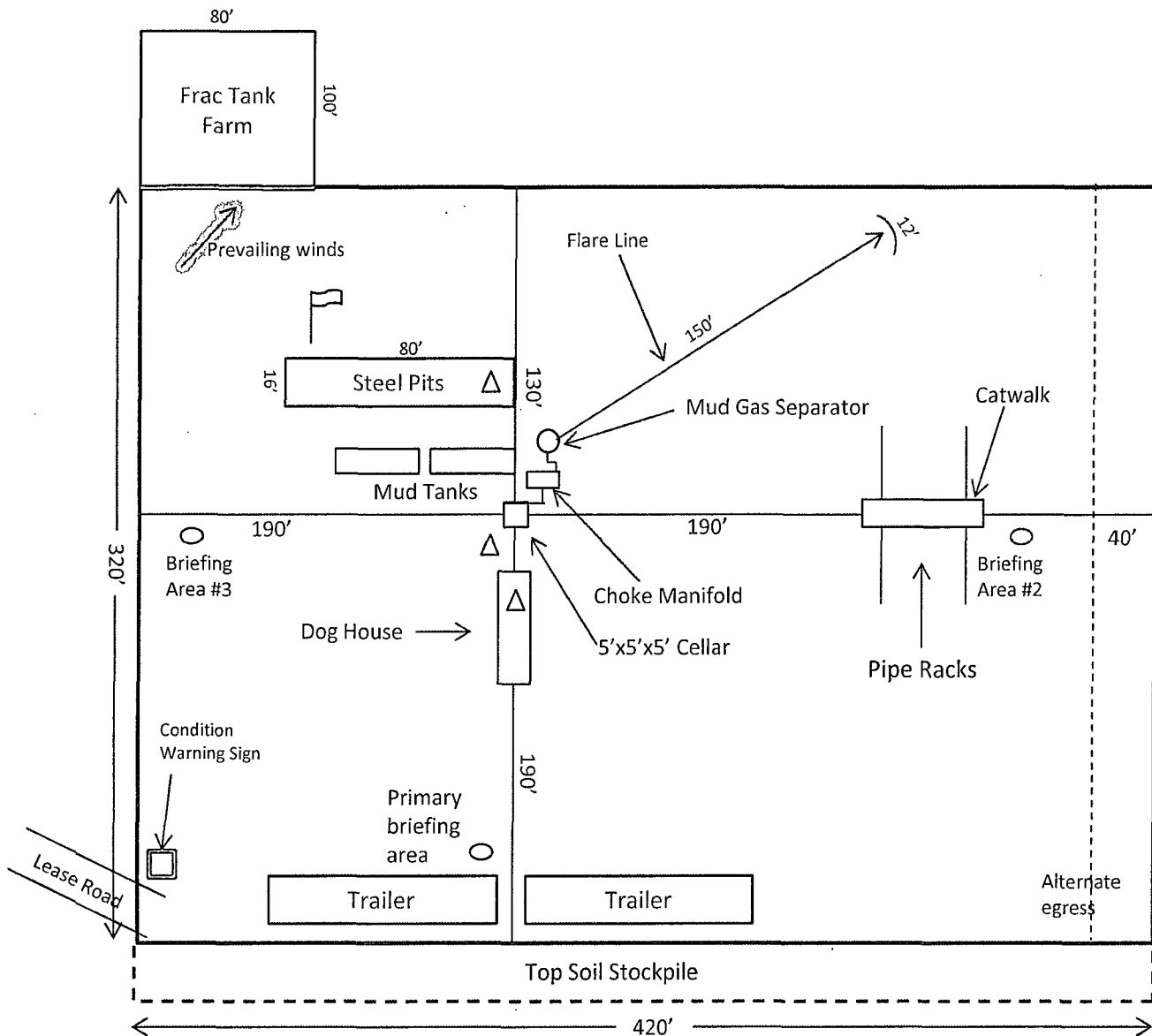
Midwest Hose
& Specialty, Inc.

Exhibit F -3- Co-Flex Hose
Red Hills Unit 31H
Cimarex Energy Co.
Sec. 4-26S-33E
SHL 330' FNL & 1350' 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 components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

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



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



Exhibit D – Rig Layout Diagram
Red Hills Unit 31H
 Cimarex Energy Co.
 Sec. 4-26S-33E
 SHL 330' FNL & 1350' FEL
 BHL 330' FSL & 2200' FEL
 Lea County, NM

Operator - Land Owner Agreement

Company: Cimarex Energy Co.

Proposed Well: Red Hills Unit 31H

Federal Lease Number: NM089425

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.

Dinwiddle Cattle Company, LLC
Tommy Dinwiddle
P.O. Box 374
Roswell, NM 88202
575-355-7610

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.

9/12/14
Date

Hope Knauls
Signature Hope Knauls