



Devon Energy

Lea Co., New Mexico (Nad 83)

Rattlesnake Fed Unit #8H

Rattlesnake Fed Unit #8H

Lateral #1

Plan: Design #1

Standard Survey Report

20 October, 2010

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**DRILLING & MEASUREMENT
SERVICES**

Company:	Devon Energy	Local Co-ordinate Reference:	Site Rattlesnake Fed Unit #8H
Project:	Lea Co., New Mexico (Nad 83)	TVD Reference:	WELL @ 3320.00ft (Original Well Elev)
Site:	Rattlesnake Fed Unit #8H	MD Reference:	WELL @ 3320.00ft (Original Well Elev)
Well:	Rattlesnake Fed Unit #8H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 2003.21 Single User Db

Project	Lea Co., New Mexico (Nad 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Rattlesnake Fed Unit #8H, Sec 10, T-26S, R-34E		
Site Position:		Northing:	383,565.39 ft
From:	Map	Easting:	814,941.44 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 3' 5.130 N
		Longitude:	103° 27' 0.821 W
		Grid Convergence:	0.47 °

Well	Rattlesnake Fed Unit #8H		
Well Position	+N/-S	0.00 ft	Northing: 383,565.39 ft
	+E/-W	0.00 ft	Easting: 814,941.44 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	3,320.00 ft
		Ground Level:	3,295.00 ft

Wellbore	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	08/24/10	7.60	60.09	48,641

Design	Design #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	359.51	

Survey Tool Program	Date	10/20/10			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	9,200.00	Design #1 (Lateral #1)	NS-GYRO-MS	North sensing gyrocompassing m/s	
9,200.00	14,260.58	Design #1 (Lateral #1)	CUDD MWD	MWD - Standard CUDD MWD	

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,241.00	0.00	0.00	5,241.00	0.00	0.00	0.00	0.00	0.00	0.00	
Bell Canyon										
6,292.00	0.00	0.00	6,292.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cherry Canyon										
8,307.00	0.00	0.00	8,307.00	0.00	0.00	0.00	0.00	0.00	0.00	
Brushy Canyon										
9,312.02	0.00	0.00	9,312.02	0.00	0.00	0.00	0.00	0.00	0.00	
KOP - Build 10°/100'										
9,312.03	0.00	0.00	9,312.03	0.00	0.00	0.00	0.00	0.00	0.00	
9,440.96	12.89	359.51	9,439.87	14.44	-0.12	14.45	10.00	10.00	0.00	

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Well:	Rattlesnake Fed Unit #8H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 2003.21 Single User Db

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Top of Bone Springs									
10,217.02	90.50	359.51	9,884.97	577.93	-4.99	577.95	10.00	10.00	0.00
EOC - Hold I:90.5* @ A:360.0*									
10,217.03	90.50	359.51	9,884.97	577.94	-4.99	577.96	10.00	10.00	0.00
14,260.58	90.50	359.51	9,849.68	4,621.18	-39.88	4,621.35	0.00	0.00	0.00
PBHL - TD (RFU#8H)									

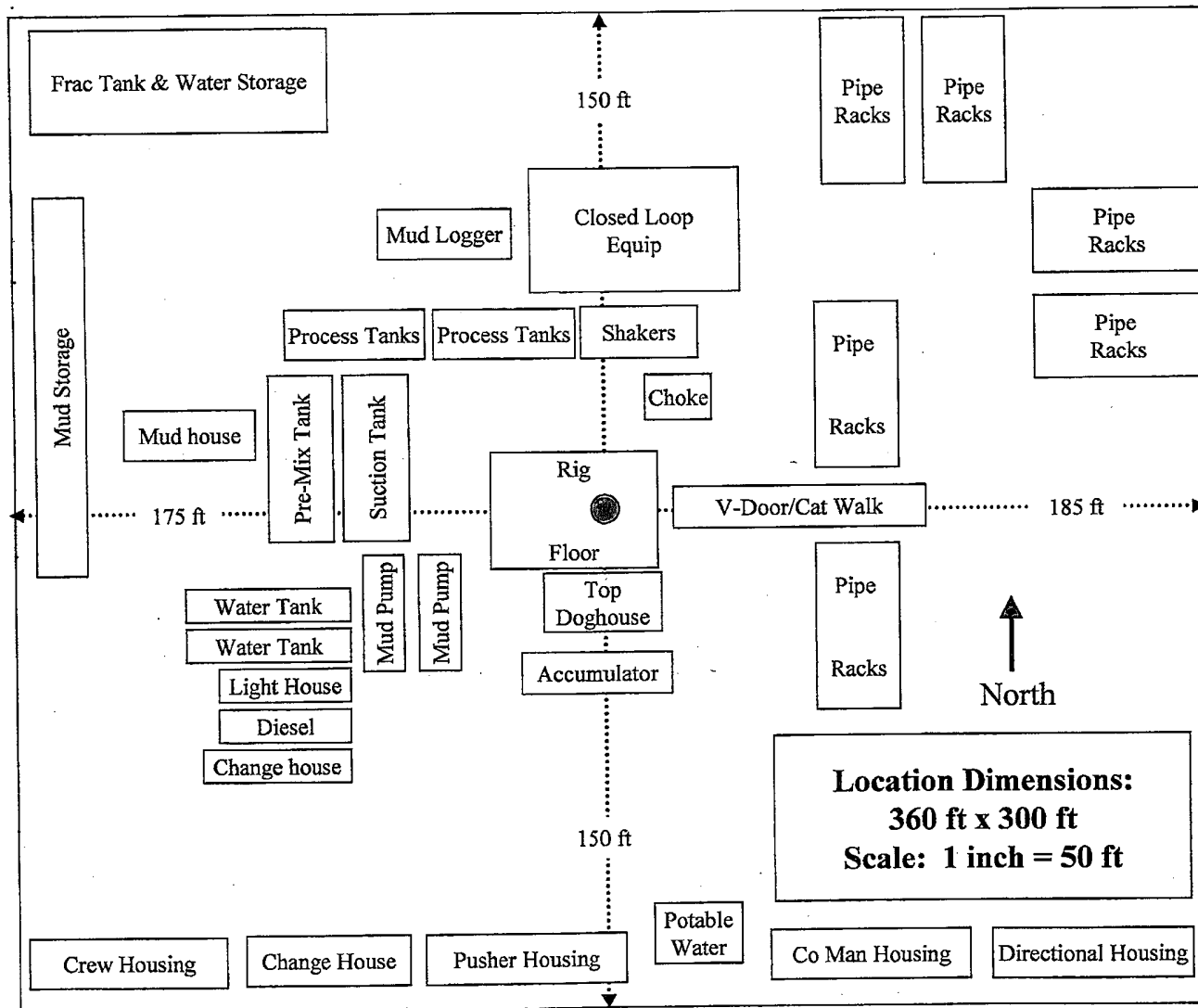
Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL - TD (RFU#8H)	0.00	359.53	9,849.68	4,621.18	-39.88	388,186.56	814,901.56	32° 3' 50.860 N	103° 27' 0.845 W
- plan hits target center									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,241.00	5,241.00	Bell Canyon		-0.50		
6,292.00	6,292.00	Cherry Canyon		-0.50		
8,307.00	8,307.00	Brushy Canyon		-0.50		
9,440.96	9,440.00	Top of Bone Springs		-0.50		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,312.02	9,312.02	0.00	0.00	KOP - Build 10"/100'
10,217.02	9,884.97	577.93	-4.99	EOC - Hold I:90.5* @ A:360.0*

Checked By: _____	Approved By: _____	Date: _____
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Conventional Rig Location Layout





Proposed Interim Site Reclamation

Devon Energy Production Co.

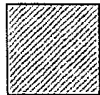
Rattlesnake Fed Unit 8H

330' FSL & 330' FEL

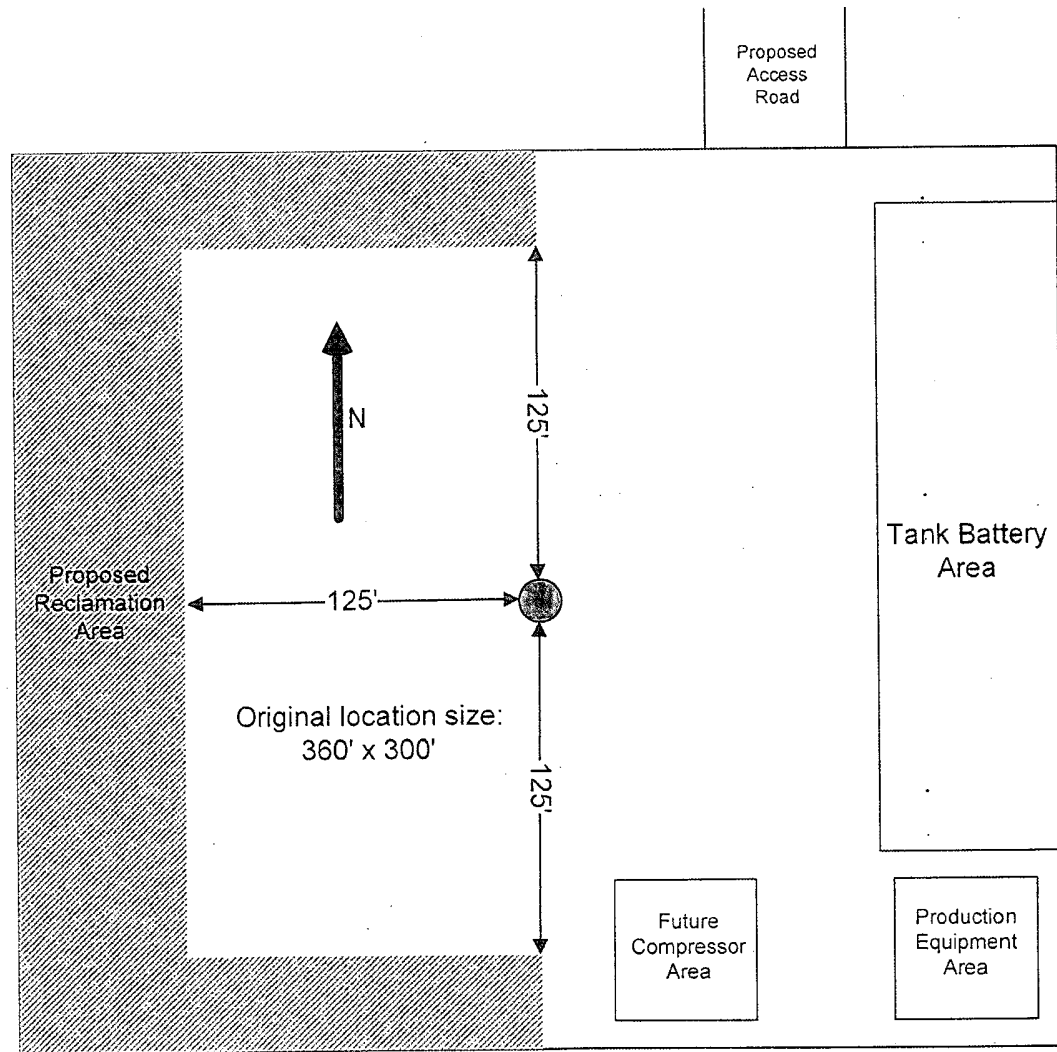
Sec. 10 - T26S - R34E

Lea County, NM

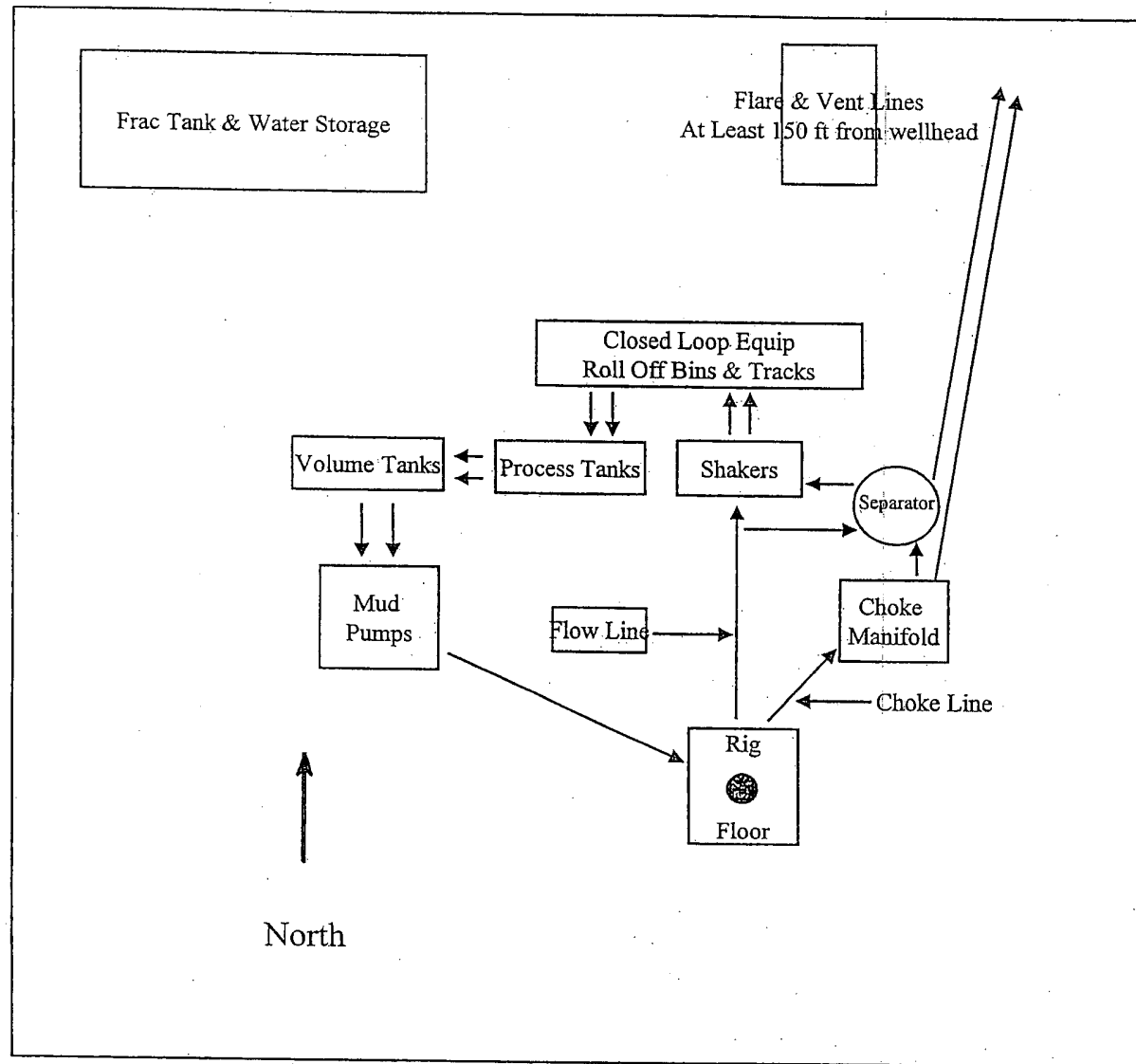
Proposed
Reclamation Area



1" : 60'



Closed Loop Equipment Diagram



Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

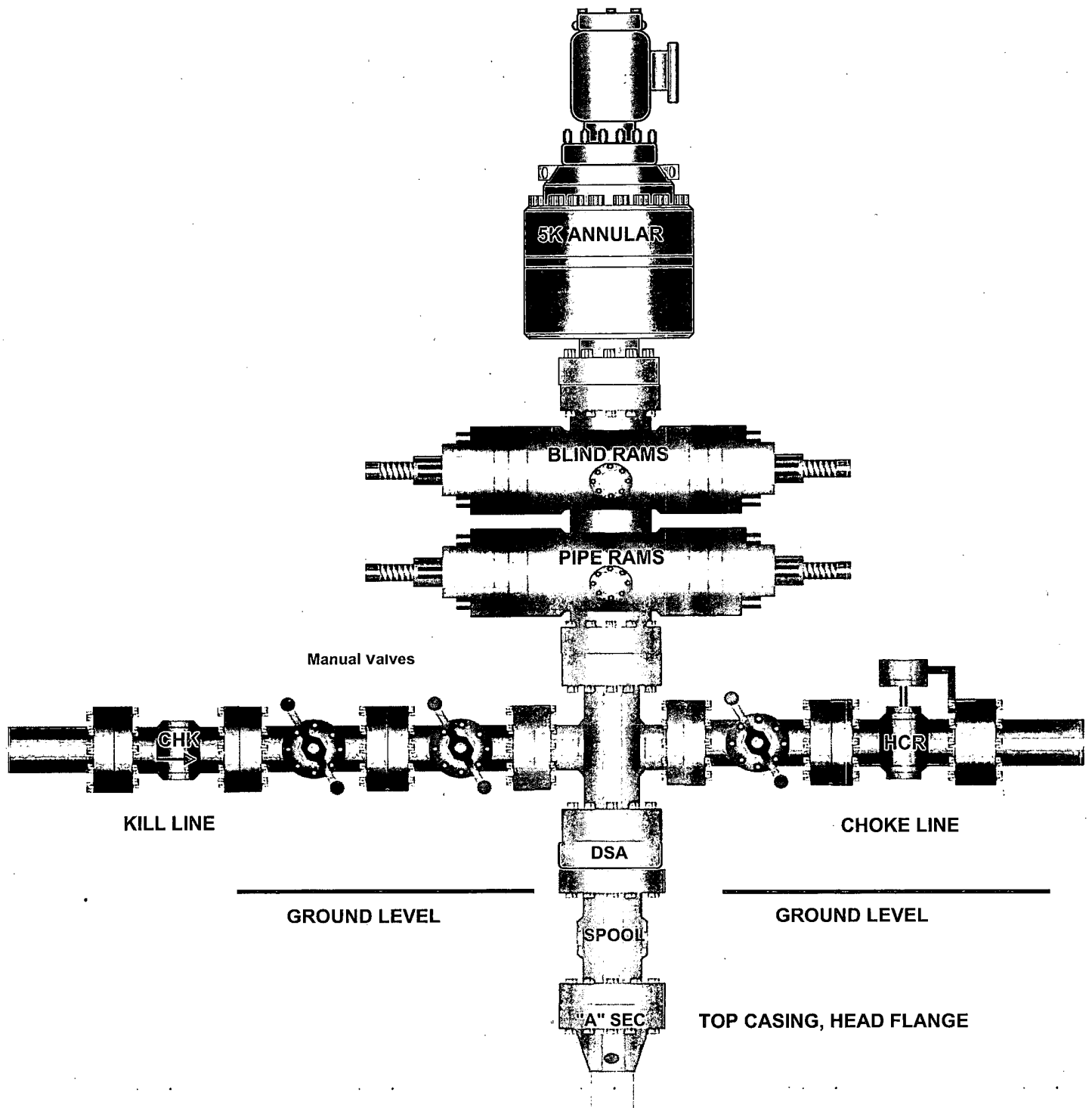
Rattlesnake Federal Unit #8H

Surface Location: 330' FSL & 330' FEL, Unit P, Sec 10 T26S R34E, Lea, NM

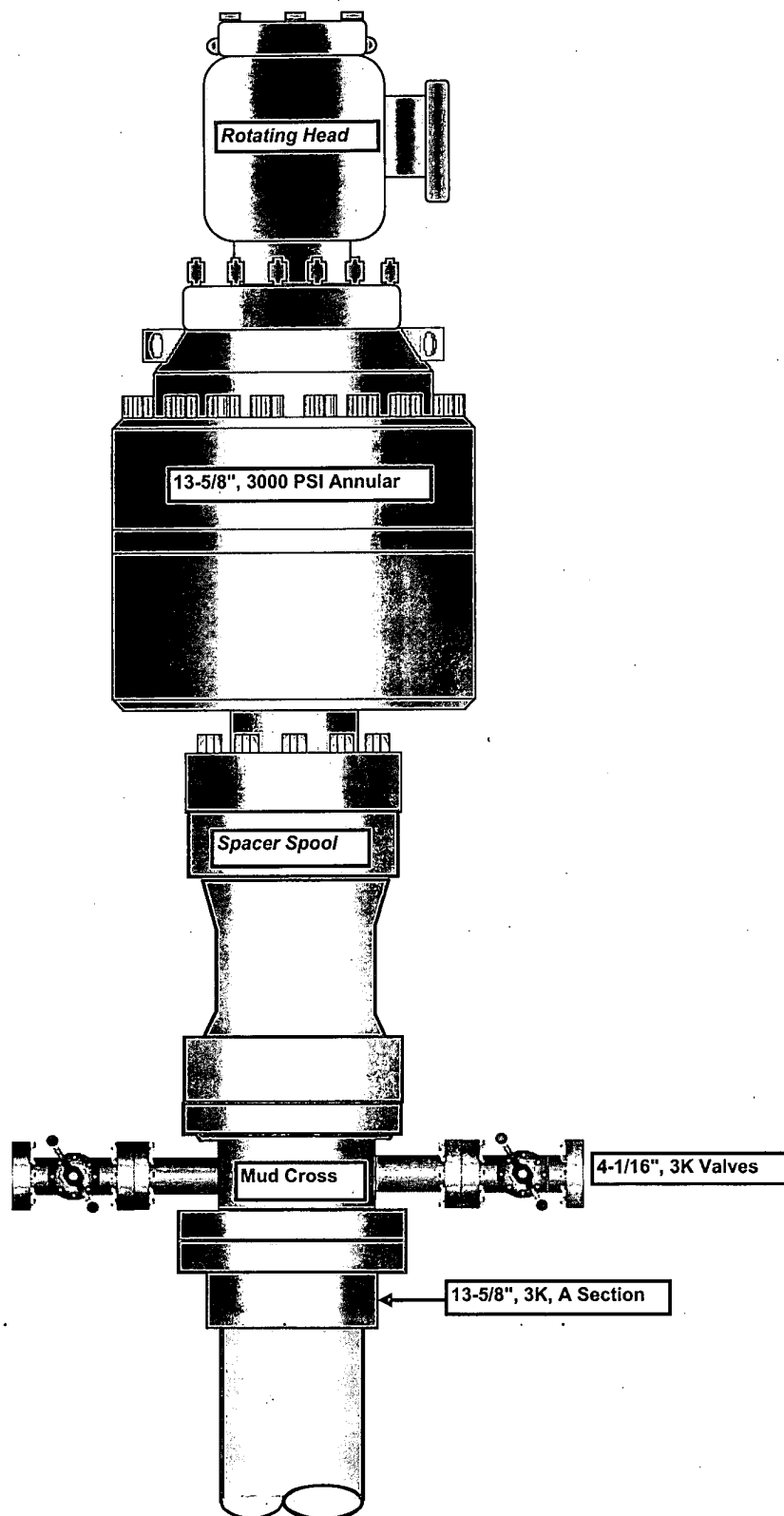
Bottom hole Location: 330' FNL & 330' FEL, Unit A, Sec 10 T26S R34E, Lea, NM

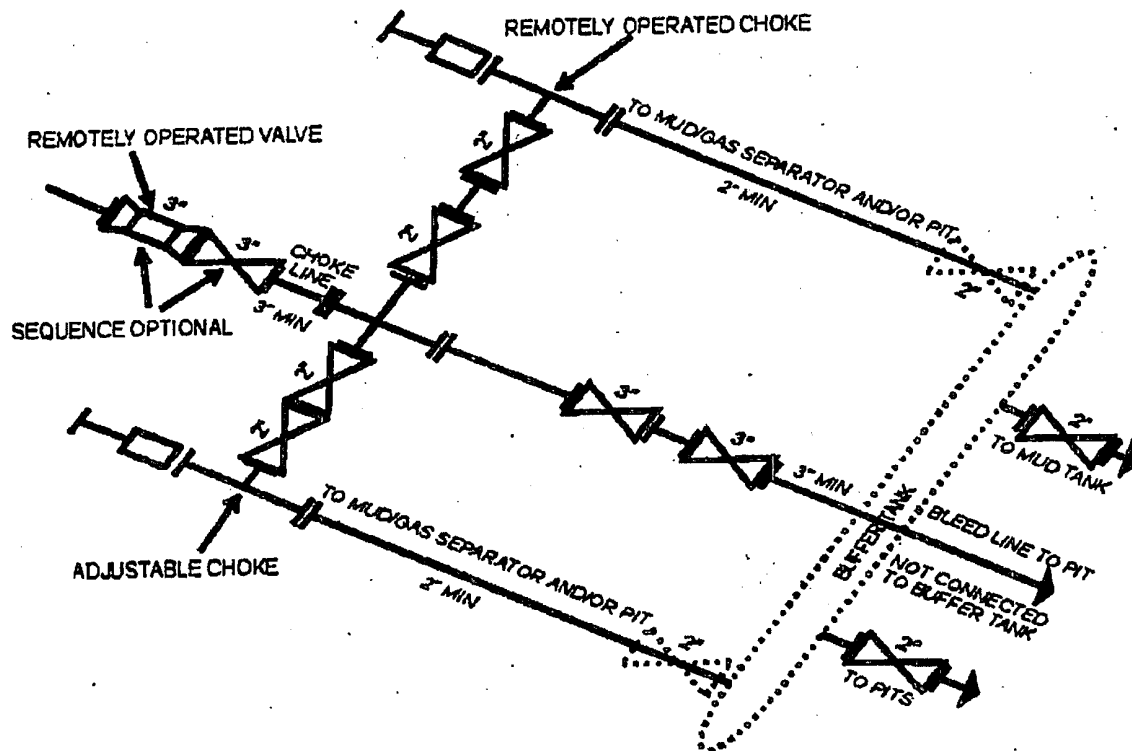
1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

11" x 5,000 psi BOP Stack



13-5/8" 3K Annular





5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, OR 15M drawings, it would also be applicable to those situations.

[54 FR 39528, Sept. 27, 1989]

Per BLM: Operator is to supply an accurate manifold schematic and not the generic example from Onshore Order #2.