

HOBBS OCD
OCD Hobbs
DEC 19 2011

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work ☒ DRILL ☐ REENTER		6 If Indian, Allottee or Tribe Name	
1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		7 If Unit or CA Agreement, Name and No	
2 Name of Operator Devon Energy Production Co., LP		8 Lease Name and Well No Grizzly Bear 13 Federal Com #1H	
3a Address 20 North Broadway OKC, OK 73102		9 API Well No. 30-025-40384	
3b Phone No (include area code) (405)-228-8973		10 Field and Pool, or Exploratory Delaware	
4 Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SESE 660' FSL & 330' FEL Unit P At proposed prod zone SWSW 660' FSL & 330' FWL Unit M		11 Sec, T R M or Blk and Survey or Area Sec 13 T18S R33E	
14 Distance in miles and direction from nearest town or post office* Approximately 11 miles southeast of Maljamar, NM.		12 County or Parish Lea	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg. unit line, if any) 660'		13 State NM	
16 No of acres in lease 1,483.52 & 800 acres		17 Spacing Unit dedicated to this well 160 acres	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft See attached map		20. BLM/BIA Bond No on file CO-1104 + NM B000801	
19 Proposed Depth TVD 5440' MD 9727'		21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3972' GL	
22 Approximate date work will start* 01/01/2012		23 Estimated duration 45 days	

24. Attachments

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

- | | |
|--|---|
| 1 Well plat certified by a registered surveyor | 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2 A Drilling Plan | 5 Operator certification |
| 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office) | 6 Such other site specific information and/or plans as may be required by the BLM. |

25 Signature <i>Spence Laird</i>	Name (Printed/Typed) Spence Laird	Date 08/25/2011
Title Regulatory Analyst		

Approved by (Signature) /s/ James Stovall	Name (Printed/Typed)	Date DEC 14 2011
Title FIELD MANAGER		Office CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon
Conditions of approval, if any, are attached

APPROVAL FOR TWO YEARS

Title 18 USC, Section 1001 and Title 43 USC Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

HOBBS OCD

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **DEC 19 2011**
 Energy, Minerals & Natural Resources Department
 OIL CONSERVATION DIVISION
 1220 South St. Francis Dr. **RECEIVED**
 Santa Fe, NM 87505

Form C-102
 Revised October 15, 2009
 Submit one copy to appropriate
 District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-40384	² Pool Code 21655	³ Pool Name E. K DELAWARE
⁴ Property Code 38989	⁵ Property Name GRIZZLY BEAR "13" FEDERAL COM	
⁶ UGRID No. 6137	⁷ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	
		⁸ Well Number 1H
		⁹ Elevation 3972.9

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	13	18 S	33 E		660	SOUTH	330	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	13	18 S	33 E		660	SOUTH	330	WEST	LEA

¹² Dedicated Acres 160	¹³ Joint or infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

NW CORNER SEC. 13 LAT. = 32.754954°N LONG. = 103.625202°W NMSP EAST (FT) N = 639112.01 E = 759034.41	NE CORNER SEC. 13 LAT. = 32.754995°N LONG. = 103.608048°W NMSP EAST (FT) N = 639162.69 E = 764307.92	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Spence Laird</i> 8/24/11 Signature Date Printed Name SPENCE LAIRD
GRIZZLY BEAR "13" FEDERAL COM #1H ELEV. = 3972.9' LAT. = 32.742316°N (NAD83) LONG. = 103.609132°W NMSP EAST (FT) N = 634547.49 E = 764006.30		
SW CORNER SEC. 13 LAT. = 32.740447°N LONG. = 103.625199°W NMSP EAST (FT) N = 633833.86 E = 759070.53	SE CORNER SEC. 13 LAT. = 32.740501°N LONG. = 103.608061°W NMSP EAST (FT) N = 633889.28 E = 764340.19	
BOTTOM OF HOLE LAT. = 32.742269°N LONG. = 103.624127°W NMSP EAST (FT) N = 634498.97 E = 759395.93		
SURFACE LOCATION LAT. = 32.742269°N LONG. = 103.624127°W NMSP EAST (FT) N = 634498.97 E = 759395.93		18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. MARCH 29, 2011 Date of Survey <i>Frank Jaramillo</i> Signature and Seal of Professional Surveyor Certificate Number FRANK J. JARAMILLO, PLS 12797 SURVEY NO. 421

DRILLING PROGRAM

Devon Energy Production Company, LP

Grizzly Bear 13 Federal Com 1H

Surface Location: 660' FSL & 330' FEL, Unit P, Sec 13 T18S R33E, Lea, NM

Bottom hole Location: 660' FSL & 330' FWL, Unit M, Sec 13 T18S R33E, Lea, NM

1. Geologic Name of Surface Formation

a. Permian

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

Geologic Formation	Depth (TVD)	O/G/W	Penetration Point
a. Fresh Water	120'	Water	660 FSL, 330 FEL
b. Rustler	1678'	Barren	660 FSL, 330 FEL
c. Salado	1942'	Barren	660 FSL, 330 FEL
d. Base of Salt	3008'	Barren	660 FSL, 330 FEL
e. Yates	3161'	Barren	660 FSL, 330 FEL
f. Seven Rivers	3652'	Oil	660 FSL, 330 FEL
g. Queen	4343'	Oil	660 FSL, 330 FEL
h. Grayburg	4649'	Oil	660 FSL, 330 FEL
i. Grayburg (assumed KOP)	4790'	Oil	660 FSL, 330 FEL
j. Delaware	5198'	Oil	660 FSL, 330 FEL
k. Horizontal Ldng Depth (TVD)	5362'	Oil	660 FSL, 880 FWL
l. Approx. TD Lateral	5440'	Oil	660 FSL, 330 FWL

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 1730' and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at 3200' and circulating cement to surface. The pay intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing. All casing is new and API approved.

3. Casing Program:

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0' - 1730'	13 3/8"	0' - 1730'	54.5#	LTC 5TC	K-55
12 1/4"	1730' - 3200'	9 5/8"	0' - 3200'	40#	LTC	J-55
8 3/4"	3,200'-9,727'	5 1/2"	0' - 4700' 4700-9,727'	17# 17#	LTC BTC	P-110 P-110

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
13 3/8"	1.4	3.3	5.4
9 5/8	1.5	2.4	4.1
5 1/2"	2.7	3.9	2.7

4. Cement Program: (Cement volumes based on at least 20% excess)**5.**

13 3/8" Surface

Lead: 1035 sacks (35:65) Poz (Fly Ash):Premium Plus C Cement + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 5% bwow Sodium Chloride + 0.8% bwoc Sodium Metasilicate + 5% bwoc MPA-5 + 101.1% Fresh Water
Yield: 1.97 cf/sack. TOC @ surface.

Tail: 300 sacks Premium Plus C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water
Yield: 1.35 cf/sack.

9 5/8" Intermediate

Lead: 710 sacks (35:65) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water
Yield: 1.97 cf/sack. TOC @ surface.

Tail: 300 sacks Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Water
Yield: 1.34 cf/sack.

5 1/2 Production

Lead: 350 sacks (35:65) Poz + 0.2% bwoc Sodium Metasilicate + 1.4% bwoc FL-62 + 0.4% bwoc
Yield: 2.04 cf/sack.

Tail

Lead: 1140 sacks (50:50) Poz (Fly Ash):Premium Plus C Cement + 1% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 0.4% bwoc R-3 + 103.1% Fresh Water
Yield: 1.28 cf/sack.

DV TOOL at ~4000'**2nd Stage**

Lead: 360 sacks Class C+ 0.125 lbs/sack Cello Flake + 3
6% bwoc Bentonite + 0.4% bwoc FL-52A + 99.3% Fresh Water
Yield: 2.88 cf/sk

Tail: 150 sacks (60:40) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride
+ 0.15% bwoc + 63.2% Fresh Water
Yield: 1.33 cf/sk

TOC for All Strings:

Surface:	0'
Intermediate:	0'
Production	2700'

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA.

6. Pressure Control Equipment:

The blow out prevention system will consist of a bag type (hydрил) preventer, a double ram preventer stack, and a rotating head. Both the hydрил and ram stack will be hydraulically operated. Both BOP systems will be rated at 5000psi. **The hydрил will be tested to 1000psi (high) and 250psi (low).** *For 12 1/4" hole only.* The Hydрил preventer on the 13 3/8" surface casing will be tested as a 2000 psi preventer. Prior to drilling out the 9 5/8" intermediate shoe, the ram stack will be nipped up with 4.5" pipe rams installed and will be used in the BOP. **Tests on the 5000psi BOP will be conducted per the BLM Drilling Operations Order #2.**

The ram system will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and hydрил, other BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5000 psi WP.

7. Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 1730'	8.4 - 9.0	32 - 34	N/C	FW/Gel
1730' - 3200'	10	28 - 30	N/C	Brine
3,200' - 9,727'	8.6 - 9.0	28	NC	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times.

8. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

9. Logging, Coring, and Testing Program: See LSA

- Drill stem tests will be based on geological sample shows.
- If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.

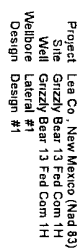
- c. The open hole electrical logging program will be:
- i. Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
 - ii. Total Depth to Surface Compensated Neutron with Gamma Ray
 - iii. No coring program is planned
 - iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

10. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area; therefore, no H₂S is anticipated to be encountered. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3000 psi and Estimated BHT 135°.

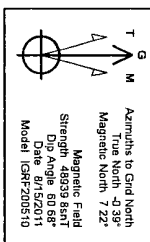
11. Anticipated Starting Date and Duration of Operations:

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



Cudd
DRILLING & MEASUREMENT
SERVICES

PROJECT DETAILS		Lea Co., New Mexico (Nad 83)
Geodetic System	US State Plane 1983	
Datum	North American Datum 1983	
Ellipsoid	GRS 1980	
Zone	New Mexico Eastern Zone	
System Datum	Mean Sea Level	



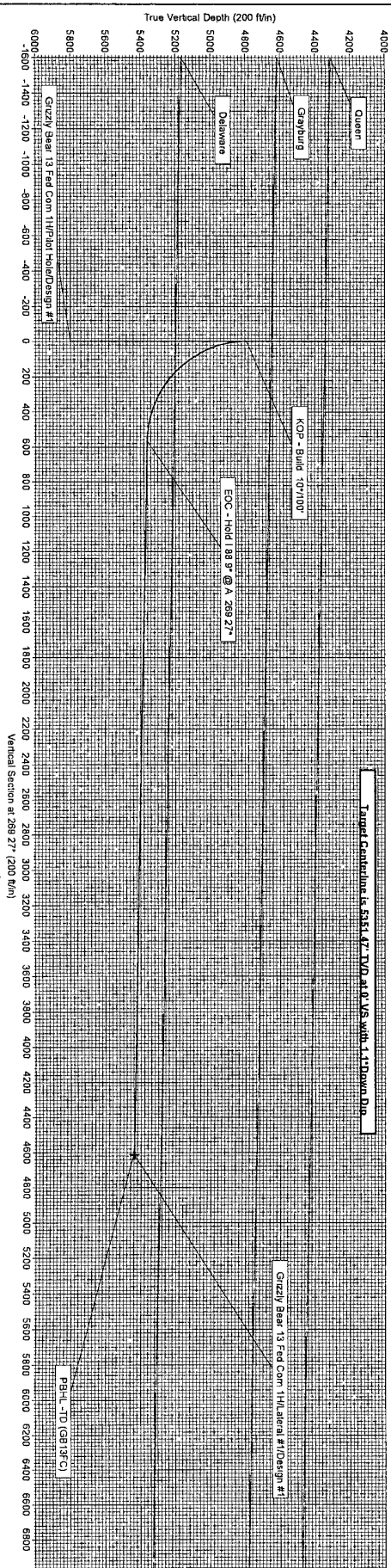
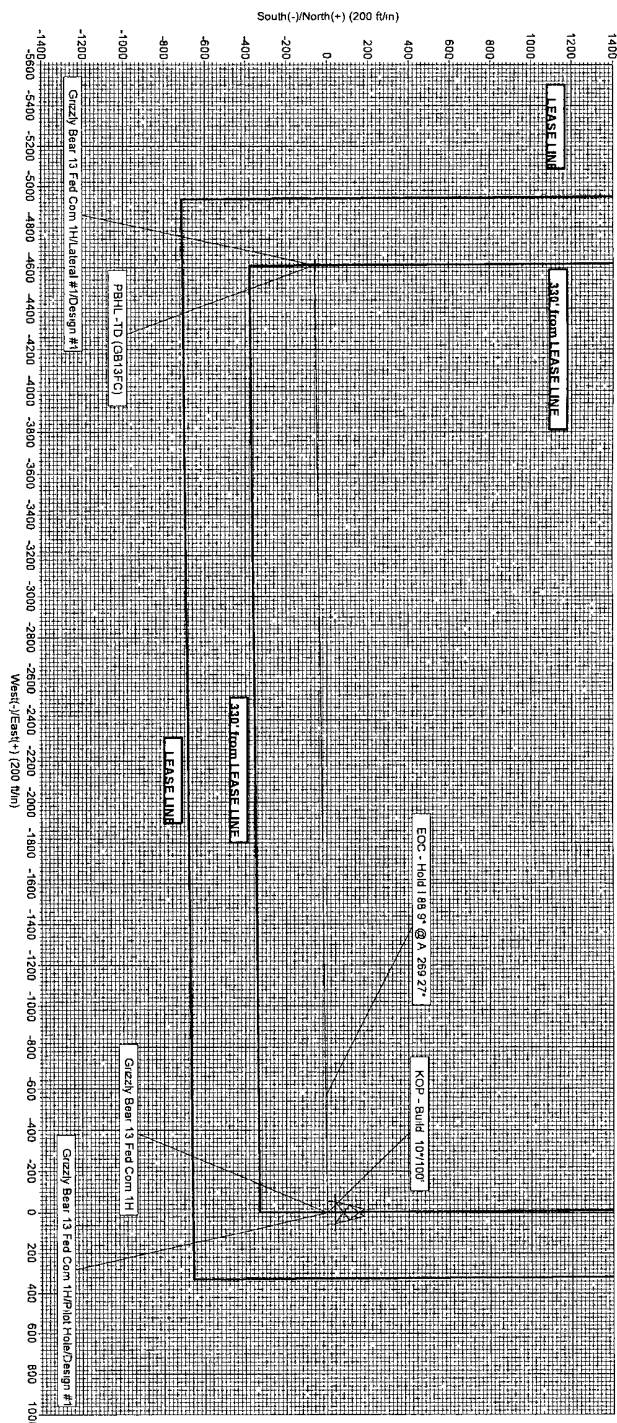
WELL DETAILS				
Guzzly Bear 13 Fed Com TH				
Ground Level				
3860 DD				
WELL @ 3865 DD#1 (Original Well Elev)				
	Northing	Easting	Latitude	Longitude
+N/S	0.00	634547.48	32° 44' 42.338 N	103° 56' 32.875 W
+E/W	0.00	764008.30		
				Spot

SECTION DETAILS										
Sec	MD	Inc	Azi	TYD	+N/S	+E/W	Dbrg	Ti-Face	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	24788.15	0.00	0.00	4788.15	0.00	0.00	0.00	0.00	0.00	
3	5678.12	88.80	269.27	5352.00	-7.13	-561.88	10.00	269.27	561.82	
49/27.70	88.90	269.27	5440.00		-58.52	-4610.38	0.00		4610.75	PHL-TD (GB13FC)

Plan Design #1 (Suzzy Bear 13 Fed Com 11/Labral #1)	
Created By: Eric Minchew	Date 13.33, August 16 2011
Checked _____	Date _____
Reviewed _____	Date _____
Approved _____	Date _____

ANNOTATIONS		
TVD	MD	Annotation
4769 15	4769 15	KOP - Build 10*/100*
5362 00	5678 12	EOC - Hold 188 9" @ A 289 27*

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONS)							
Name	TYD	N/S	+E/W	Nothing	East/West	Longitude	Shape
PHIL -TD (GB13FC)	5440 00	-56 52	-46 10 38	654488 97	753985 93 32° 44'	32 068 N 103° 37'	26 557 W Point





Devon Energy Production Co, LP

Lea Co., New Mexico (Nad 83)

Grizzly Bear 13 Fed Com 1H

Grizzly Bear 13 Fed Com 1H

HOBBS OCD

DEC 19 2011

Lateral #1

RECEIVED

Plan: Design #1

Standard Planning Report

15 August, 2011



CUDD Drilling and Measurement Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Grizzly Bear 13 Fed Com 1H
Company:	Devon Energy Production Co, LP	TVD Reference:	WELL @ 3985.00ft (Original Well Elev)
Project:	Lea Co., New Mexico (Nad 83)	MD Reference:	WELL @ 3985.00ft (Original Well Elev)
Site:	Grizzly Bear 13 Fed Com 1H	North Reference:	Grid
Well:	Grizzly Bear 13 Fed Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

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:	Grizzly Bear 13 Fed Com 1H, Sec 13, T-18S, R-33E		
Site Position:	Northing:	634,547.49 usft	Latitude: 32° 44' 32.338 N
From: Map	Easting:	764,006.30 usft	Longitude: 103° 36' 32.875 W
Position Uncertainty:	0.00 ft	Slot Radius: 13-3/16 "	Grid Convergence: 0.39 °

Well:	Grizzly Bear 13 Fed Com 1H		
Well Position	+N/-S	0.00 ft	Northing: 634,547.49 usft
	+E/-W	0.00 ft	Easting: 764,006.30 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	3,985.00 ft
			Ground Level: 3,960.00 ft

Wellbore:	Lateral #1		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	8/15/2011	7.61	60.68	48,940

Design:	Design #1		
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Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.00

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	269.27

Plan Sections										
Measured:	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,789.15	0.00	0.00	4,789.15	0.00	0.00	0.00	0.00	0.00	0.00	
5,678.12	88.90	269.27	5,362.00	-7.13	-561.88	10.00	10.00	0.00	269.27	
9,727.70	88.90	269.27	5,440.00	-58.52	-4,610.38	0.00	0.00	0.00	0.00	PBHL -TD (GB13FC



CUDD Drilling and Measurement Planning Report

Database:	EDM 5000 1: Single User Db	Local Co-ordinate Reference:	Site Grizzly Bear 13 Fed Com 1H
Company:	Devon Energy Production Co. LP	TVD Reference:	WELL @ 3985.00ft (Original Well Elev)
Project:	Lea Co. New Mexico (Nad'83)	MD Reference:	WELL @ 3985.00ft (Original Well Elev)
Site:	Grizzly Bear 13 Fed Com 1H	North Reference:	Grid
Well:	Grizzly Bear 13 Fed Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,789.15	0.00	0.00	4,789.15	0.00	0.00	0.00	0.00	0.00	0.00
KOP Build: 10°/100'									
4,800.00	1.08	269.27	4,800.00	0.00	-0.10	0.10	10.00	10.00	0.00
4,850.00	6.08	269.27	4,849.89	-0.04	-3.23	3.23	10.00	10.00	0.00
4,900.00	11.08	269.27	4,899.31	-0.14	-10.69	10.69	10.00	10.00	0.00
4,950.00	16.08	269.27	4,947.90	-0.28	-22.43	22.43	10.00	10.00	0.00
5,000.00	21.08	269.27	4,995.27	-0.49	-38.36	38.36	10.00	10.00	0.00
5,050.00	26.08	269.27	5,041.08	-0.74	-58.35	58.36	10.00	10.00	0.00
5,100.00	31.08	269.27	5,084.97	-1.04	-82.27	82.27	10.00	10.00	0.00
5,150.00	36.08	269.27	5,126.61	-1.40	-109.92	109.92	10.00	10.00	0.00
5,200.00	41.08	269.27	5,165.69	-1.79	-141.09	141.10	10.00	10.00	0.00
5,249.23	46.01	269.27	5,201.36	-2.22	-174.99	175.01	10.00	10.00	0.00
Delaware									
5,250.00	46.08	269.27	5,201.89	-2.23	-175.54	175.56	10.00	10.00	0.00
5,300.00	51.08	269.27	5,234.96	-2.70	-213.03	213.04	10.00	10.00	0.00
5,350.00	56.08	269.27	5,264.63	-3.21	-253.25	253.27	10.00	10.00	0.00
5,400.00	61.08	269.27	5,290.68	-3.76	-295.90	295.92	10.00	10.00	0.00
5,450.00	66.08	269.27	5,312.92	-4.32	-340.66	340.69	10.00	10.00	0.00
5,500.00	71.08	269.27	5,331.17	-4.91	-387.19	387.22	10.00	10.00	0.00
5,550.00	76.08	269.27	5,345.30	-5.52	-435.13	435.17	10.00	10.00	0.00
5,600.00	81.08	269.27	5,355.19	-6.15	-484.13	484.17	10.00	10.00	0.00
5,650.00	86.08	269.27	5,360.77	-6.78	-533.79	533.84	10.00	10.00	0.00
5,678.12	88.90	269.27	5,362.00	-7.13	-561.88	561.93	10.00	10.00	0.00
EOC Hold: 88.9° @ A: 269.27°									
5,700.00	88.90	269.27	5,362.43	-7.41	-583.76	583.80	0.00	0.00	0.00
5,800.00	88.90	269.27	5,364.35	-8.68	-683.73	683.78	0.00	0.00	0.00
5,900.00	88.90	269.27	5,366.28	-9.95	-783.70	783.77	0.00	0.00	0.00
6,000.00	88.90	269.27	5,368.20	-11.22	-883.68	883.75	0.00	0.00	0.00
6,100.00	88.90	269.27	5,370.13	-12.49	-983.65	983.73	0.00	0.00	0.00
6,200.00	88.90	269.27	5,372.06	-13.75	-1,083.62	1,083.71	0.00	0.00	0.00
6,300.00	88.90	269.27	5,373.98	-15.02	-1,183.60	1,183.69	0.00	0.00	0.00
6,400.00	88.90	269.27	5,375.91	-16.29	-1,283.57	1,283.67	0.00	0.00	0.00
6,500.00	88.90	269.27	5,377.83	-17.56	-1,383.54	1,383.65	0.00	0.00	0.00
6,600.00	88.90	269.27	5,379.76	-18.83	-1,483.52	1,483.64	0.00	0.00	0.00
6,700.00	88.90	269.27	5,381.69	-20.10	-1,583.49	1,583.62	0.00	0.00	0.00
6,800.00	88.90	269.27	5,383.61	-21.37	-1,683.46	1,683.60	0.00	0.00	0.00
6,900.00	88.90	269.27	5,385.54	-22.64	-1,783.44	1,783.58	0.00	0.00	0.00
7,000.00	88.90	269.27	5,387.46	-23.91	-1,883.41	1,883.56	0.00	0.00	0.00
7,100.00	88.90	269.27	5,389.39	-25.18	-1,983.38	1,983.54	0.00	0.00	0.00
7,200.00	88.90	269.27	5,391.32	-26.44	-2,083.36	2,083.52	0.00	0.00	0.00
7,300.00	88.90	269.27	5,393.24	-27.71	-2,183.33	2,183.51	0.00	0.00	0.00
7,400.00	88.90	269.27	5,395.17	-28.98	-2,283.30	2,283.49	0.00	0.00	0.00
7,500.00	88.90	269.27	5,397.09	-30.25	-2,383.28	2,383.47	0.00	0.00	0.00
7,600.00	88.90	269.27	5,399.02	-31.52	-2,483.25	2,483.45	0.00	0.00	0.00
7,700.00	88.90	269.27	5,400.95	-32.79	-2,583.22	2,583.43	0.00	0.00	0.00
7,800.00	88.90	269.27	5,402.87	-34.06	-2,683.20	2,683.41	0.00	0.00	0.00
7,900.00	88.90	269.27	5,404.80	-35.33	-2,783.17	2,783.39	0.00	0.00	0.00
8,000.00	88.90	269.27	5,406.72	-36.60	-2,883.14	2,883.38	0.00	0.00	0.00
8,100.00	88.90	269.27	5,408.65	-37.87	-2,983.12	2,983.36	0.00	0.00	0.00
8,200.00	88.90	269.27	5,410.58	-39.13	-3,083.09	3,083.34	0.00	0.00	0.00
8,300.00	88.90	269.27	5,412.50	-40.40	-3,183.06	3,183.32	0.00	0.00	0.00
8,400.00	88.90	269.27	5,414.43	-41.67	-3,283.04	3,283.30	0.00	0.00	0.00
8,500.00	88.90	269.27	5,416.35	-42.94	-3,383.01	3,383.28	0.00	0.00	0.00



CUDD Drilling and Measurement Planning Report

Database:	EDM 5000-1 Single User Db	Local Co-ordinate Reference:	Site: Grizzly Bear 13 Fed Com 1H
Company:	Devon Energy Production Co, LP	TVD Reference:	WELL @ 3985.00ft (Original Well Elev)
Project:	Lea Co , New Mexico (Nad 83)	MD Reference:	WELL @ 3985.00ft (Original Well Elev)
Site:	Grizzly Bear 13 Fed Com 1H	North Reference:	Grid
Well:	Grizzly Bear 13 Fed Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

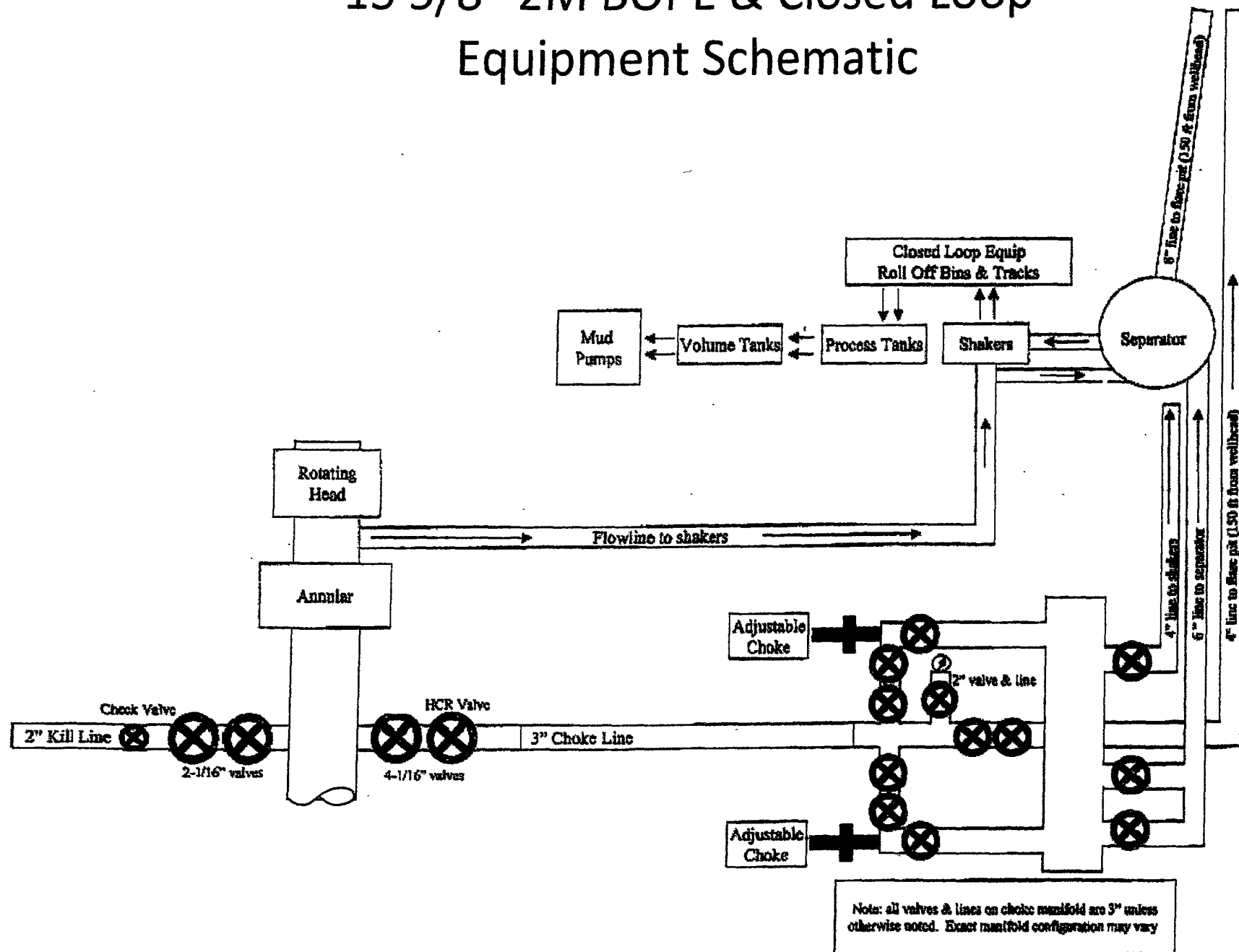
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.00	88.90	269.27	5,418.28	-44.21	-3,482.98	3,483.26	0.00	0.00	0.00
8,700.00	88.90	269.27	5,420.21	-45.48	-3,582.96	3,583.25	0.00	0.00	0.00
8,800.00	88.90	269.27	5,422.13	-46.75	-3,682.93	3,683.23	0.00	0.00	0.00
8,900.00	88.90	269.27	5,424.06	-48.02	-3,782.90	3,783.21	0.00	0.00	0.00
9,000.00	88.90	269.27	5,425.98	-49.29	-3,882.88	3,883.19	0.00	0.00	0.00
9,100.00	88.90	269.27	5,427.91	-50.55	-3,982.85	3,983.17	0.00	0.00	0.00
9,200.00	88.90	269.27	5,429.84	-51.82	-4,082.82	4,083.15	0.00	0.00	0.00
9,300.00	88.90	269.27	5,431.76	-53.09	-4,182.80	4,183.13	0.00	0.00	0.00
9,400.00	88.90	269.27	5,433.69	-54.36	-4,282.77	4,283.12	0.00	0.00	0.00
9,500.00	88.90	269.27	5,435.61	-55.63	-4,382.74	4,383.10	0.00	0.00	0.00
9,600.00	88.90	269.27	5,437.54	-56.90	-4,482.72	4,483.08	0.00	0.00	0.00
9,700.00	88.90	269.27	5,439.47	-58.17	-4,582.69	4,583.06	0.00	0.00	0.00
9,727.70	88.90	269.27	5,440.00	-58.52	-4,610.38	4,610.75	0.00	0.00	0.00

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude Longitude
PBHL -TD (GB13FC)	- plan hits target center	0.00	0.00	5,440.00	-58.52	-4,610.38	634,488.97	759,395.93	32° 44' 32.068 N 103° 37' 26.857 W
	- Point								

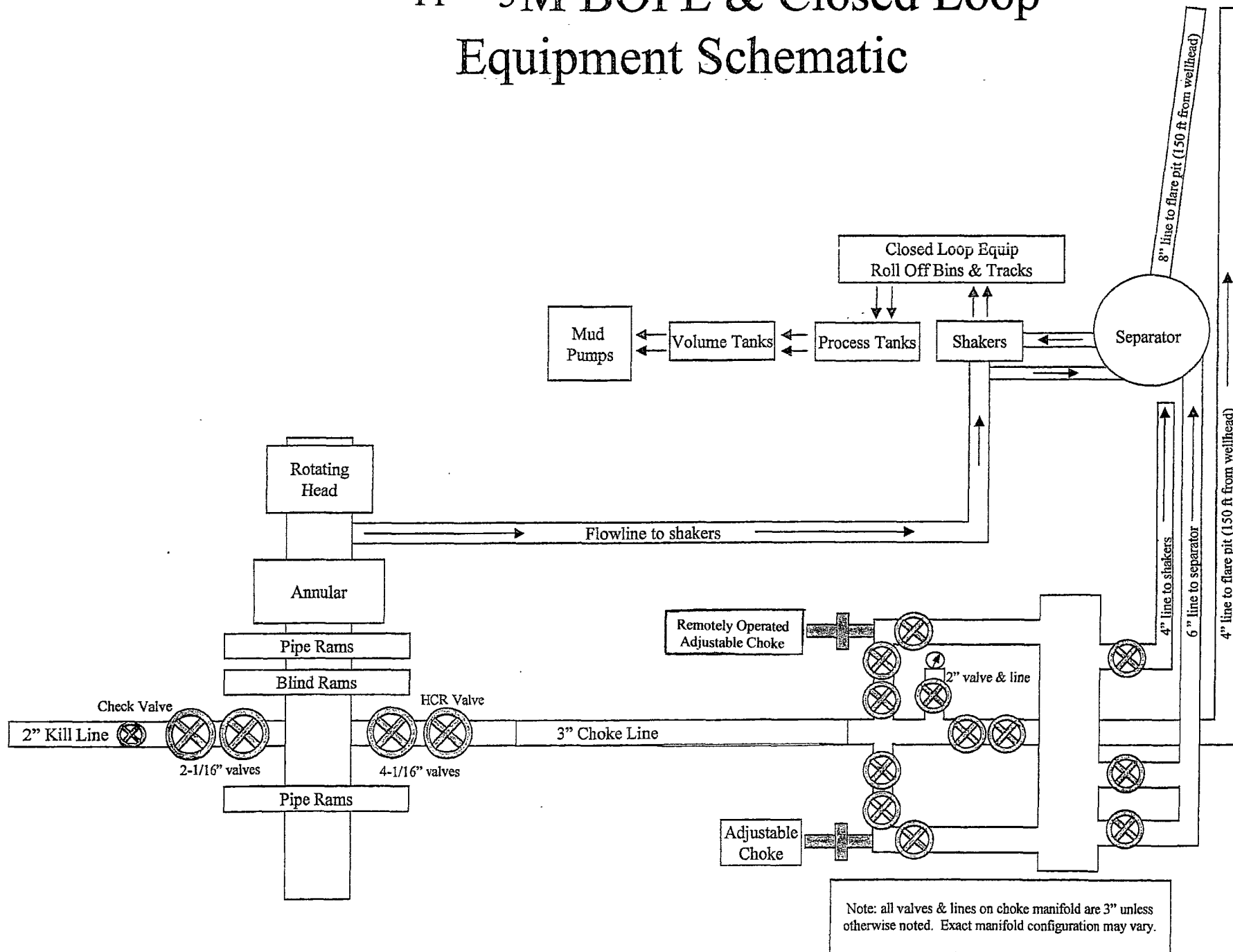
Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,678.00	1,078.00	Rustler		1.10	269.27	
1,942.00	1,342.00	Salado		1.10	269.27	
3,008.00	2,408.00	Base of Salt		1.10	269.27	
3,161.00	2,561.00	Yates		1.10	269.27	
3,652.00	3,052.00	Seven Rivers		1.10	269.27	
4,343.00	3,743.00	Queen		1.10	269.27	
4,649.00	4,049.00	Grayburg		1.10	269.27	
5,249.23	4,601.36	Delaware		1.10	269.27	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
4,789.15	4,789.15	0.00	0.00	KOP - Build: 10°/100'
5,678.12	5,362.00	-7.13	-561.88	EOC - Hold 1:88.9° @ A: 269.27°

13 5/8" 2M BOPE & Closed Loop Equipment Schematic



11" 5M BOPE & Closed Loop Equipment Schematic



Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

Grizzly Bear 13 Federal Com 1H

Surface Location: 660' FSL & 330' FEL, Unit P, Sec 13 T18S R33E, Lea, NM

Bottom hole Location: 660' FSL & 330' FWL, Unit M, Sec 13 T18S R33E, 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 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 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.