

Form 3160-9
(March 2012)
**ORTHODOX
LOCATION**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

JUN 02 2014

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

(H)

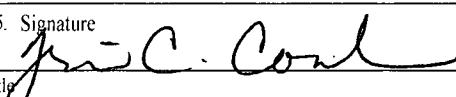
APPLICATION FOR PERMIT TO DRILL OR REENTER RECEIVED

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. (BH) NMNM63994
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Devon Energy Production Company, L.P. 6137		7. If Unit or CA Agreement, Name and No.
3a. Address 333 West Sheridan Avenue Oklahoma City, OK 73102-5015	3b. Phone No. (include area code) 405-228-7203	8. Lease Name and Well No. Boundary Raider 6 Fed 2H (713306)
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 200 FNL & 200 FEL, A At proposed prod. zone 330 FNL & 660 FEL, Lot 1, Sec. 6-23S-32E PP: 368 FSL & 660 FEL		9. API Well No. 30-025-4884
10. Field and Pool, or Exploratory SAND QUARRY; Bone Spring (53800)		11. Sec., T. R. M. or Blk. and Survey or Area Sec. 7, T23S-32E
14. Distance in miles and direction from nearest town or post office* 20 miles Northeast of Malaga, NM		12. County or Parish Lea County
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) See Attached Map		13. State NM
16. No. of acres in lease 1,020.63 ac		17. Spacing Unit dedicated to this well 159.59 ac
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; NMB-000801
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3550.4'	22. Approximate date work will start* 03/31/2014	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 	Name (Printed/Typed) Trina C. Couch	Date 01/28/2014
--	--	--------------------

Title
Regulatory Compliance Associate

Approved by (Signature) 	Name (Printed/Typed) STEPHEN J. CAFFEY	Date 5-23-14
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.C. 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)

*(Instructions on page 2)

CARLSBAD CONTROLLED WATER BASIN

Kz
06/02/14

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL
JUN 02 2014

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently 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 Devon Energy Production Company, L.P. 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.

I hereby also certify that I, or Devon Energy Production Company, L.P. have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD.

Executed this 13th day of December, 2013.

Printed Name: Trina Couch

Signed Name: 

Position Title: Regulatory Associate

Address: 333 W. Sheridan, OKC OK 73102-5010

Telephone: (405)-228-7203

HOBBS OCD

JUN 02 2014

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DRILLING PROGRAM

Devon Energy Production Company, L.P.
Boundary Raider 6 Fed 2H

1. **Geologic Name of Surface Formation:** Quaternary
2. **Estimated Tops of Geological Markers & Depths of Anticipated FW, Oil, or Gas:**

a. Fresh Water	350'	
b. Rustler	847'	Barren
c. Top Salt/Salado	980'	Barren
d. Base Salt/Tansill	4,290'	Barren
e. Delaware	4,590'	Oil and Gas
f. Cherry Canyon	5,668'	Oil and Gas
g. Brushy Canyon	7,075'	Oil and Gas
h. Bone Spring	8,445'	Oil and Gas
i. 1 st Bone Spring Sand	9,570'	Oil and Gas
j. 2 nd Bone Spring Sand	10,266'	Oil and Gas
Total Depth	10,361' TVD	15378' MD

3. Pressure Control Equipment:

A 5M 13-5/8" BOP system (Triple Ram and Annular preventer) will be installed and tested prior to drilling out the surface casing shoe. The BOP system used to drill the intermediate hole will be tested per BLM Onshore Oil and Gas Order 2.

A 5M 13-5/8" BOP system (Triple Ram and Annular preventer) will be installed and tested prior to drilling out the intermediate casing shoe. The BOP system used to drill the production hole will be tested per BLM Onshore Oil and Gas Order 2.

The pipe rams 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 annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); **if an H&P rig drills this well. Otherwise no flex line is needed.** The line will be kept as straight as possible with minimal turns.

Auxiliary Well Control and Monitoring Equipment:

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

4. Casing Program:

See COA

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight (lb/ft)	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17-1/2"	0 - 900'	13-3/8"	0 - 900'	48	STC	H-40	1.79	4.02	7.45
12-1/4"	900-4400'	9-5/8"	0-4400'	40	LTC	HCK-55	1.85	1.73	5.26
8-3/4"	4400-9900'	5-1/2"	0-9900'	17	LTC	P-110	1.83	2.27	2.64
8-3/4"	9900-15378'	5-1/2"	9900-15378'	17	BTC	P-110	1.58	1.96	6.10

Casing Notes:

- All casing is new and API approved

Maximum Lateral TVD: 10,417'

Contingency Casing Program if lost circulation is encountered in the Delaware:

See COA

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight (lb/ft)	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17-1/2"	0 - 900'	13-3/8"	0 - 900'	48	STC	H-40	1.79	4.02	7.45
12-1/4"	900-4400'	9-5/8"	0-4400'	40	LTC	HCK-55	1.85	1.73	5.26
8-3/4"	4400-10500'	7"	0-10500'	29	BTC	P-110	1.74	2.29	3.14
6-1/8"	10500-15378'	4-1/2"	10400-15378'	13.5	BTC	P-110	1.98	2.30	6.66

5. Proposed mud Circulations System:

Depth	Mud Weight	Viscosity	Fluid Loss	Type System
0-900'	8.4-9.0	30-34	N/C	FW
900-4400'	9.8-10.0	28-32	N/C	Brine
4400-15378'	8.6-10	28-32	N/C	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

6. Cementing Table:

***Note: If lost circulation is encountered in the 12.25" section, a two stage cement job will be run.**

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
13-3/8" Surface	410	13.5	9.08	1.72	Lead	Class C Cement + 0.25 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.8% Fresh Water
	450	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water
9-5/8" Intermediate Single Stage	930	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water
	430	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water
9-5/8" Intermediate 2-Stage Option	570	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water
	220	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water
	DV Tool @ 2000ft					
	370	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water
	210	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water
5-1/2" Production Casing 2-Stage Option	650	11	14.95	2.65	Lead	Tuned Light Cement + 80% Fresh Water
	1420	14.5	5.38	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water
	DV Tool @ 4500ft					
	400	11	14.95	2.65	Lead	Tuned Light Cement + 80% Fresh Water
	110	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water
5-1/2" Production Casing Single Stage	560	11.9	12.89	2.26	Lead	(50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000 + 76.4% Fresh Water
	330	12.5	10.86	1.96	Lead	(65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water
	1420	14.5	5.38	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water

Contingency cement plan if lost circulation is encountered in the Delaware and not able to regain returns:

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
7" Intermediate Contingent Casing 2-Stage	360	11	14.95	2.65	Lead	Tuned Light Cement + 80% Fresh Water
	160	14.4	5.75	1.24	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 2% BWOC Bentonite + 0.2% BWOC Halad-9 + 0.2% BWOC HR-800 + 62.4% Fresh Water
	DV Tool @ 4500ft					
	240	11	14.95	2.65	Lead	Tuned Light Cement + 80% Fresh Water
	70	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
4-1/2" Production Liner	490	14.5	5.38	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water

TOC for all Strings:

13-3/8" Surface 0ft

9-5/8" Intermediate Single Stage 0ft

9-5/8" Intermediate 2-Stage Stage #1 = 2000ft
Stage #2 = 0ft

5-1/2" Production Single Stage 3,900ft

5-1/2" Production 2-Stage Stage #1 = 4500ft
Stage #2 = 3,900ft

****Both 5-1/2" cement proposals will tie-back cement a minimum of 500' inside the 9-5/8" casing.**

Contingency plan:

7" Intermediate Contingent 2-Stage Stage #1 = 4,500ft
Stage #2 = 0ft

4-1/2" Production Liner 10,400ft

Notes:

- Cement volumes 13-3/8" Surface 100%, 9-5/8" Intermediate 75%, 7" Intermediate 25% and Production based on at least 25% excess.
- Actual cement volumes will be adjusted based on fluid caliper and caliper log data.

7. Logging, Coring, and Testing Program:

- a. Drill stem tests will be based on geological sample shows.
- b. 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:
 - Dual Laterolog
 - Micro Laterolog with SP & 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 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows, and drill stem tests.

8. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area, and none is anticipated to be encountered. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. All personnel will be familiar with all aspects of safe operation being used to drill this well. Estimated BHP: 4600 psi, and estimated BHT: 160 degrees.
- b. 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. 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 20 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.

DEVON ENERGY

Project: Lea County, NM (NAD-83)
Site: Boundary Raider 6 Federal
Well: 2H
Wellbore: OH
Design: Plan #1 Draft 1



Azimuths to Grid North
True North: -0.34°
Magnetic North: 7.13°

Magnetic Field
Strength: 48405.3snT
Dip Angle: 60.19°
Date: 11/12/2013
Model: BGGM2013

devon

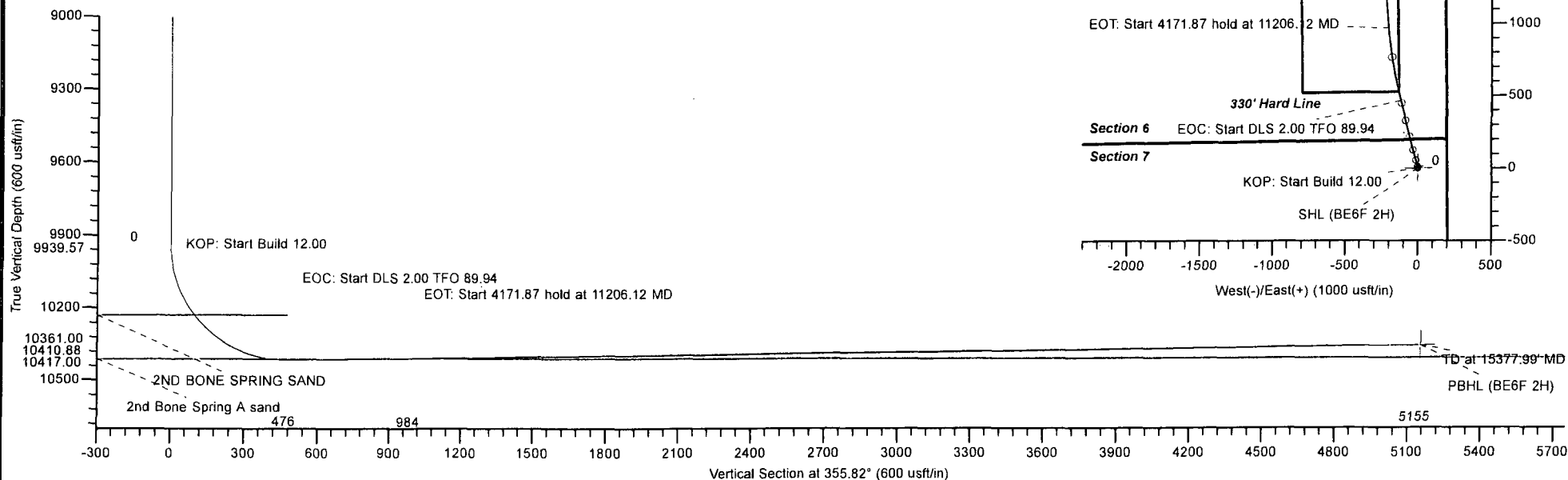
PROJECT DETAILS: Lea County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL (BE6F 2H)	0.00	0.00	0.00	482803.39	735151.61	32° 19' 32.659 N	103° 42' 21.166 W
PBHL (BE6F 2H)	10361.00	5131.89	-506.77	487935.28	734644.84	32° 20' 23.470 N	103° 42' 26.722 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	9939.57	0.00	0.00	9939.57	0.00	0.00	0.00	0.00	0.00	KOP: Start Build 12.00
3	10695.28	90.69	345.60	10417.00	467.99	-120.16	12.00	345.60	475.51	EOC: Start DLS 2.00 TFO 89.94
4	11206.12	90.69	355.82	10410.88	971.43	-202.52	2.00	89.94	983.60	EOT: Start 4171.87 hold at 11206.12 MD
5	15377.99	90.69	355.82	10361.00	5131.89	-506.77	0.00	0.00	5155.18	TD at 15377.99' MD



LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax 936/756-7595

Plan: Plan #1 Draft 1 (2H/OH)
Boundary Raider 6 Federal
Created By: Heber Claros Date: 10:50, November 13 2013
Approved: _____ Date: _____

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	GE 3550' + KB 26' @ 3576.00usft (ScanTexas)
Project:	Lea County, NM (NAD-83)	MD Reference:	GE 3550' + KB 26' @ 3576.00usft (ScanTexas)
Site:	Boundary Raider 6 Federal	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1		

Project	Lea County, NM (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	Boundary Raider 6 Federal		
Site Position:		Northing:	482,803.39 usft
From:	Map	Easting:	735,151.61 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 19' 32.659 N
		Longitude:	103° 42' 21.166 W
		Grid Convergence:	0.34 °

Well	2H		
Well Position	+N/-S	0.00 usft	Northing: 482,803.39 usft
	+E/-W	0.00 usft	Easting: 735,151.61 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 19' 32.659 N
		Longitude:	103° 42' 21.166 W
		Ground Level:	3,550.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	BGGM2013	11/12/13	7.47
			Dip Angle
			60.19
			Field Strength
			48,405

Design:	Plan #1 Draft 1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			355.82

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,939.57	0.00	0.00	9,939.57	0.00	0.00	0.00	0.00	0.00	0.00	
10,695.28	90.69	345.60	10,417.00	467.99	-120.16	12.00	12.00	0.00	345.60	
11,206.12	90.69	355.82	10,410.88	971.43	-202.52	2.00	0.00	2.00	89.94	
15,377.99	90.69	355.82	10,361.00	5,131.89	-506.77	0.00	0.00	0.00	0.00	PBHL (BE6F 2H)

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	GE 3550' + KB 26' @ 3576.00usft (ScanTexas)
Project:	Lea County, NM (NAD-83)	MD Reference:	GE 3550' + KB 26' @ 3576.00usft (ScanTexas)
Site:	Boundary Raider 6 Federal	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,939.57	0.00	0.00	9,939.57	0.00	0.00	0.00	0.00	0.00	0.00	
KOP: Start Build 12.00										
9,950.00	1.25	345.60	9,950.00	0.11	-0.03	0.11	12.00	12.00	0.00	
9,975.00	4.25	345.60	9,974.97	1.27	-0.33	1.29	12.00	12.00	0.00	
10,000.00	7.25	345.60	9,999.84	3.70	-0.95	3.76	12.00	12.00	0.00	
10,025.00	10.25	345.60	10,024.55	7.38	-1.90	7.50	12.00	12.00	0.00	
10,050.00	13.25	345.60	10,049.02	12.31	-3.16	12.51	12.00	12.00	0.00	
10,075.00	16.25	345.60	10,073.19	18.48	-4.74	18.78	12.00	12.00	0.00	
10,100.00	19.25	345.60	10,097.00	25.86	-6.64	26.28	12.00	12.00	0.00	
10,125.00	22.25	345.60	10,120.37	34.44	-8.84	34.99	12.00	12.00	0.00	
10,150.00	25.25	345.60	10,143.25	44.19	-11.35	44.90	12.00	12.00	0.00	
10,175.00	28.25	345.60	10,165.58	55.09	-14.14	55.97	12.00	12.00	0.00	
10,200.00	31.25	345.60	10,187.28	67.10	-17.23	68.18	12.00	12.00	0.00	
10,225.00	34.25	345.60	10,208.30	80.20	-20.59	81.49	12.00	12.00	0.00	
10,250.00	37.25	345.60	10,228.59	94.35	-24.22	95.86	12.00	12.00	0.00	
10,253.04	37.62	345.60	10,231.00	96.14	-24.68	97.68	12.00	12.00	0.00	
2ND BONE SPRING SAND										
10,275.00	40.25	345.60	10,248.08	109.50	-28.12	111.26	12.00	12.00	0.00	
10,300.00	43.25	345.60	10,266.73	125.63	-32.26	127.64	12.00	12.00	0.00	
10,325.00	46.25	345.60	10,284.48	142.67	-36.63	144.96	12.00	12.00	0.00	
10,350.00	49.25	345.60	10,301.29	160.60	-41.23	163.17	12.00	12.00	0.00	
10,375.00	52.25	345.60	10,317.10	179.35	-46.05	182.23	12.00	12.00	0.00	
10,400.00	55.25	345.60	10,331.89	198.87	-51.06	202.06	12.00	12.00	0.00	
10,425.00	58.25	345.60	10,345.59	219.12	-56.26	222.64	12.00	12.00	0.00	
10,450.00	61.25	345.60	10,358.18	240.04	-61.63	243.89	12.00	12.00	0.00	
10,475.00	64.25	345.60	10,369.63	261.56	-67.16	265.76	12.00	12.00	0.00	
10,500.00	67.25	345.60	10,379.89	283.64	-72.83	288.19	12.00	12.00	0.00	
10,525.00	70.25	345.60	10,388.95	306.20	-78.62	311.12	12.00	12.00	0.00	
10,550.00	73.25	345.60	10,396.78	329.20	-84.52	334.48	12.00	12.00	0.00	
10,575.00	76.25	345.60	10,403.36	352.56	-90.52	358.22	12.00	12.00	0.00	
10,600.00	79.25	345.60	10,408.66	376.22	-96.60	382.26	12.00	12.00	0.00	
10,613.58	80.88	345.60	10,411.00	389.17	-99.92	395.42	12.00	12.00	0.00	
2nd Bone Spring A sand										
10,625.00	82.25	345.60	10,412.68	400.11	-102.73	406.54	12.00	12.00	0.00	
10,650.00	85.25	345.60	10,415.40	424.18	-108.91	430.99	12.00	12.00	0.00	
10,675.00	88.25	345.60	10,416.81	448.35	-115.12	455.55	12.00	12.00	0.00	
10,695.28	90.69	345.60	10,417.00	467.99	-120.16	475.51	12.00	12.00	0.00	
EOC: Start DLS 2.00 TFO 89.94										
10,700.00	90.69	345.69	10,416.94	472.57	-121.33	480.15	2.00	0.00	2.00	
10,800.00	90.69	347.69	10,415.75	569.87	-144.34	578.88	2.00	0.00	2.00	
10,900.00	90.69	349.69	10,414.55	667.92	-163.94	678.09	2.00	0.00	2.00	
11,000.00	90.69	351.69	10,413.35	766.59	-180.11	777.68	2.00	0.00	2.00	
11,100.00	90.69	353.70	10,412.15	865.77	-192.82	877.52	2.00	0.00	2.00	
11,206.12	90.69	355.82	10,410.88	971.43	-202.52	983.60	2.00	0.00	2.00	
EOT: Start 4171.87 hold at 11206.12 MD										
11,300.00	90.69	355.82	10,409.75	1,065.05	-209.37	1,077.48	0.00	0.00	0.00	
11,400.00	90.69	355.82	10,408.56	1,164.78	-216.66	1,177.47	0.00	0.00	0.00	
11,500.00	90.69	355.82	10,407.36	1,264.51	-223.95	1,277.47	0.00	0.00	0.00	
11,600.00	90.69	355.82	10,406.17	1,364.23	-231.25	1,377.46	0.00	0.00	0.00	
11,700.00	90.69	355.82	10,404.97	1,463.96	-238.54	1,477.45	0.00	0.00	0.00	
11,800.00	90.69	355.82	10,403.78	1,563.69	-245.83	1,577.44	0.00	0.00	0.00	

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	GE 3550' + KB 26' @ 3576.00usft (ScanTexas)
Project:	Lea County, NM (NAD-83)	MD Reference:	GE 3550' + KB 26' @ 3576.00usft (ScanTexas)
Site:	Boundary Raider 6 Federal	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,900.00	90.69	355.82	10,402.58	1,663.41	-253.13	1,677.44	0.00	0.00	0.00	
12,000.00	90.69	355.82	10,401.39	1,763.14	-260.42	1,777.43	0.00	0.00	0.00	
12,100.00	90.69	355.82	10,400.19	1,862.86	-267.71	1,877.42	0.00	0.00	0.00	
12,200.00	90.69	355.82	10,398.99	1,962.59	-275.00	1,977.42	0.00	0.00	0.00	
12,300.00	90.69	355.82	10,397.80	2,062.32	-282.30	2,077.41	0.00	0.00	0.00	
12,400.00	90.69	355.82	10,396.60	2,162.04	-289.59	2,177.40	0.00	0.00	0.00	
12,500.00	90.69	355.82	10,395.41	2,261.77	-296.88	2,277.39	0.00	0.00	0.00	
12,600.00	90.69	355.82	10,394.21	2,361.50	-304.18	2,377.39	0.00	0.00	0.00	
12,700.00	90.69	355.82	10,393.02	2,461.22	-311.47	2,477.38	0.00	0.00	0.00	
12,800.00	90.69	355.82	10,391.82	2,560.95	-318.76	2,577.37	0.00	0.00	0.00	
12,900.00	90.69	355.82	10,390.63	2,660.68	-326.05	2,677.37	0.00	0.00	0.00	
13,000.00	90.69	355.82	10,389.43	2,760.40	-333.35	2,777.36	0.00	0.00	0.00	
13,100.00	90.69	355.82	10,388.23	2,860.13	-340.64	2,877.35	0.00	0.00	0.00	
13,200.00	90.69	355.82	10,387.04	2,959.86	-347.93	2,977.34	0.00	0.00	0.00	
13,300.00	90.69	355.82	10,385.84	3,059.58	-355.23	3,077.34	0.00	0.00	0.00	
13,400.00	90.69	355.82	10,384.65	3,159.31	-362.52	3,177.33	0.00	0.00	0.00	
13,500.00	90.69	355.82	10,383.45	3,259.04	-369.81	3,277.32	0.00	0.00	0.00	
13,600.00	90.69	355.82	10,382.26	3,358.76	-377.10	3,377.32	0.00	0.00	0.00	
13,700.00	90.69	355.82	10,381.06	3,458.49	-384.40	3,477.31	0.00	0.00	0.00	
13,800.00	90.69	355.82	10,379.87	3,558.22	-391.69	3,577.30	0.00	0.00	0.00	
13,900.00	90.69	355.82	10,378.67	3,657.94	-398.98	3,677.29	0.00	0.00	0.00	
14,000.00	90.69	355.82	10,377.47	3,757.67	-406.28	3,777.29	0.00	0.00	0.00	
14,100.00	90.69	355.82	10,376.28	3,857.40	-413.57	3,877.28	0.00	0.00	0.00	
14,200.00	90.69	355.82	10,375.08	3,957.12	-420.86	3,977.27	0.00	0.00	0.00	
14,300.00	90.69	355.82	10,373.89	4,056.85	-428.15	4,077.27	0.00	0.00	0.00	
14,400.00	90.69	355.82	10,372.69	4,156.58	-435.45	4,177.26	0.00	0.00	0.00	
14,500.00	90.69	355.82	10,371.50	4,256.30	-442.74	4,277.25	0.00	0.00	0.00	
14,600.00	90.69	355.82	10,370.30	4,356.03	-450.03	4,377.24	0.00	0.00	0.00	
14,700.00	90.69	355.82	10,369.11	4,455.76	-457.33	4,477.24	0.00	0.00	0.00	
14,800.00	90.69	355.82	10,367.91	4,555.48	-464.62	4,577.23	0.00	0.00	0.00	
14,900.00	90.69	355.82	10,366.71	4,655.21	-471.91	4,677.22	0.00	0.00	0.00	
15,000.00	90.69	355.82	10,365.52	4,754.93	-479.20	4,777.22	0.00	0.00	0.00	
15,100.00	90.69	355.82	10,364.32	4,854.66	-486.50	4,877.21	0.00	0.00	0.00	
15,200.00	90.69	355.82	10,363.13	4,954.39	-493.79	4,977.20	0.00	0.00	0.00	
15,300.00	90.69	355.82	10,361.93	5,054.11	-501.08	5,077.19	0.00	0.00	0.00	
15,377.99	90.69	355.82	10,361.00	5,131.89	-506.77	5,155.18	0.00	0.00	0.00	
TD at 15377.99' MD - PBHL (BE6F 2H)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL (BE6F 2H)	0.00	0.01	0.00	0.00	0.00	482,803.39	735,151.61	32° 19' 32.659 N	103° 42' 21.166 W	
- plan misses target center by 9939.57usft at 9939.57usft MD (9939.57 TVD, 0.00 N, 0.00 E)										
- Point										
PBHL (BE6F 2H)	0.00	0.00	10,361.00	5,131.89	-506.77	487,935.28	734,644.84	32° 20' 23.470 N	103° 42' 26.722 W	
- plan hits target center										
- Point										

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	GE 3550' + KB 26' @ 3576.00usft (ScanTexas)
Project:	Lea County, NM (NAD-83)	MD Reference:	GE 3550' + KB 26' @ 3576.00usft (ScanTexas)
Site:	Boundary Raider 6 Federal	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
10,253.04	10,231.00	2ND BONE SPRING SAND				
10,613.58	10,411.00	2nd Bone Spring A sand				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
9,939.57	9,939.57	0.00	0.00	KOP: Start Build 12.00	
10,695.28	10,417.00	467.99	-120.16	EOC: Start DLS 2.00 TFO 89.94	
11,206.12	10,410.88	971.43	-202.52	EOT: Start 4171.87 hold at 11206.12 MD	
15,377.99	10,361.00	5,131.89	-506.77	TD at 15377.99' MD	

MD	INC	AZI	TVD	NS	EW	DLS	BUILD	TURN	VSECT
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00
	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00
	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00
	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00
	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00
	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00
	800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00
	900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00
	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00
	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00
	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00
	1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00
	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00
	1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00
	1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00
	1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00
	1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00
	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
	2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00
	2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00
	2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00
	2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00
	2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00
	2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00
	2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00
	2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00
	2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00
	3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00
	3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00
	3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00
	3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00
	3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00
	3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00
	3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00
	3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00
	3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00
	3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00
	4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00
	4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	0.00
	4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	0.00
	4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	0.00	0.00
	4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0.00
	4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.00

[illegible]

9300.00	0.00	0.00	9300.00	0.00	0.00	0.00	0.00	0.00	0.00
9400.00	0.00	0.00	9400.00	0.00	0.00	0.00	0.00	0.00	0.00
9500.00	0.00	0.00	9500.00	0.00	0.00	0.00	0.00	0.00	0.00
9600.00	0.00	0.00	9600.00	0.00	0.00	0.00	0.00	0.00	0.00
9700.00	0.00	0.00	9700.00	0.00	0.00	0.00	0.00	0.00	0.00
9800.00	0.00	0.00	9800.00	0.00	0.00	0.00	0.00	0.00	0.00
9900.00	0.00	0.00	9900.00	0.00	0.00	0.00	0.00	0.00	0.00
9939.57	0.00	0.00	9939.57	0.00	0.00	0.00	0.00	0.00	0.00
9950.00	1.25	345.60	9950.00	0.11	-0.03	12.00	12.00	0.00	0.11
9975.00	4.25	345.60	9974.97	1.27	-0.33	12.00	12.00	0.00	1.29
10000.00	7.25	345.60	9999.84	3.70	-0.95	12.00	12.00	0.00	3.76
10025.00	10.25	345.60	10024.54	7.38	-1.90	12.00	12.00	0.00	7.50
10050.00	13.25	345.60	10049.02	12.31	-3.16	12.00	12.00	0.00	12.51
10075.00	16.25	345.60	10073.19	18.48	-4.74	12.00	12.00	0.00	18.78
10100.00	19.25	345.60	10097.00	25.86	-6.64	12.00	12.00	0.00	26.28
10125.00	22.25	345.60	10120.37	34.44	-8.84	12.00	12.00	0.00	34.99
10150.00	25.25	345.60	10143.25	44.19	-11.35	12.00	12.00	0.00	44.90
10175.00	28.25	345.60	10165.58	55.09	-14.14	12.00	12.00	0.00	55.97
10200.00	31.25	345.60	10187.28	67.10	-17.23	12.00	12.00	0.00	68.18
10225.00	34.25	345.60	10208.30	80.20	-20.59	12.00	12.00	0.00	81.49
10250.00	37.25	345.60	10228.59	94.35	-24.22	12.00	12.00	0.00	95.86
10275.00	40.25	345.60	10248.08	109.50	-28.12	12.00	12.00	0.00	111.26
10300.00	43.25	345.60	10266.73	125.63	-32.26	12.00	12.00	0.00	127.64
10325.00	46.25	345.60	10284.48	142.67	-36.63	12.00	12.00	0.00	144.96
10350.00	49.25	345.60	10301.29	160.60	-41.23	12.00	12.00	0.00	163.17
10375.00	52.25	345.60	10317.10	179.35	-46.05	12.00	12.00	0.00	182.23
10400.00	55.25	345.60	10331.89	198.87	-51.06	12.00	12.00	0.00	202.06
10425.00	58.25	345.60	10345.59	219.12	-56.26	12.00	12.00	0.00	222.64
10450.00	61.25	345.60	10358.18	240.04	-61.63	12.00	12.00	0.00	243.89
10475.00	64.25	345.60	10369.63	261.56	-67.16	12.00	12.00	0.00	265.76
10500.00	67.25	345.60	10379.89	283.64	-72.83	12.00	12.00	0.00	288.19
10525.00	70.25	345.60	10388.95	306.20	-78.62	12.00	12.00	0.00	311.12
10550.00	73.25	345.60	10396.78	329.20	-84.52	12.00	12.00	0.00	334.48
10575.00	76.25	345.60	10403.35	352.56	-90.52	12.00	12.00	0.00	358.22
10600.00	79.25	345.60	10408.66	376.22	-96.60	12.00	12.00	0.00	382.26
10625.00	82.25	345.60	10412.68	400.11	-102.73	12.00	12.00	0.00	406.54
10650.00	85.25	345.60	10415.40	424.18	-108.91	12.00	12.00	0.00	430.99
10675.00	88.25	345.60	10416.81	448.35	-115.12	12.00	12.00	0.00	455.55
10695.28	90.69	345.60	10417.00	467.99	-120.16	12.00	12.00	0.00	475.51
10700.00	90.69	345.69	10416.94	472.57	-121.33	2.00	0.00	2.00	480.15
10800.00	90.69	347.69	10415.75	569.87	-144.34	2.00	0.00	2.00	578.88
10900.00	90.69	349.69	10414.55	667.92	-163.94	2.00	0.00	2.00	678.09
11000.00	90.69	351.69	10413.35	766.59	-180.11	2.00	0.00	2.00	777.68
11100.00	90.69	353.69	10412.15	865.77	-192.82	2.00	0.00	2.00	877.52
11206.12	90.69	355.82	10410.88	971.43	-202.52	2.00	0.00	2.00	983.60
11300.00	90.69	355.82	10409.75	1065.05	-209.37	0.00	0.00	0.00	1077.48
11400.00	90.69	355.82	10408.56	1164.78	-216.66	0.00	0.00	0.00	1177.47

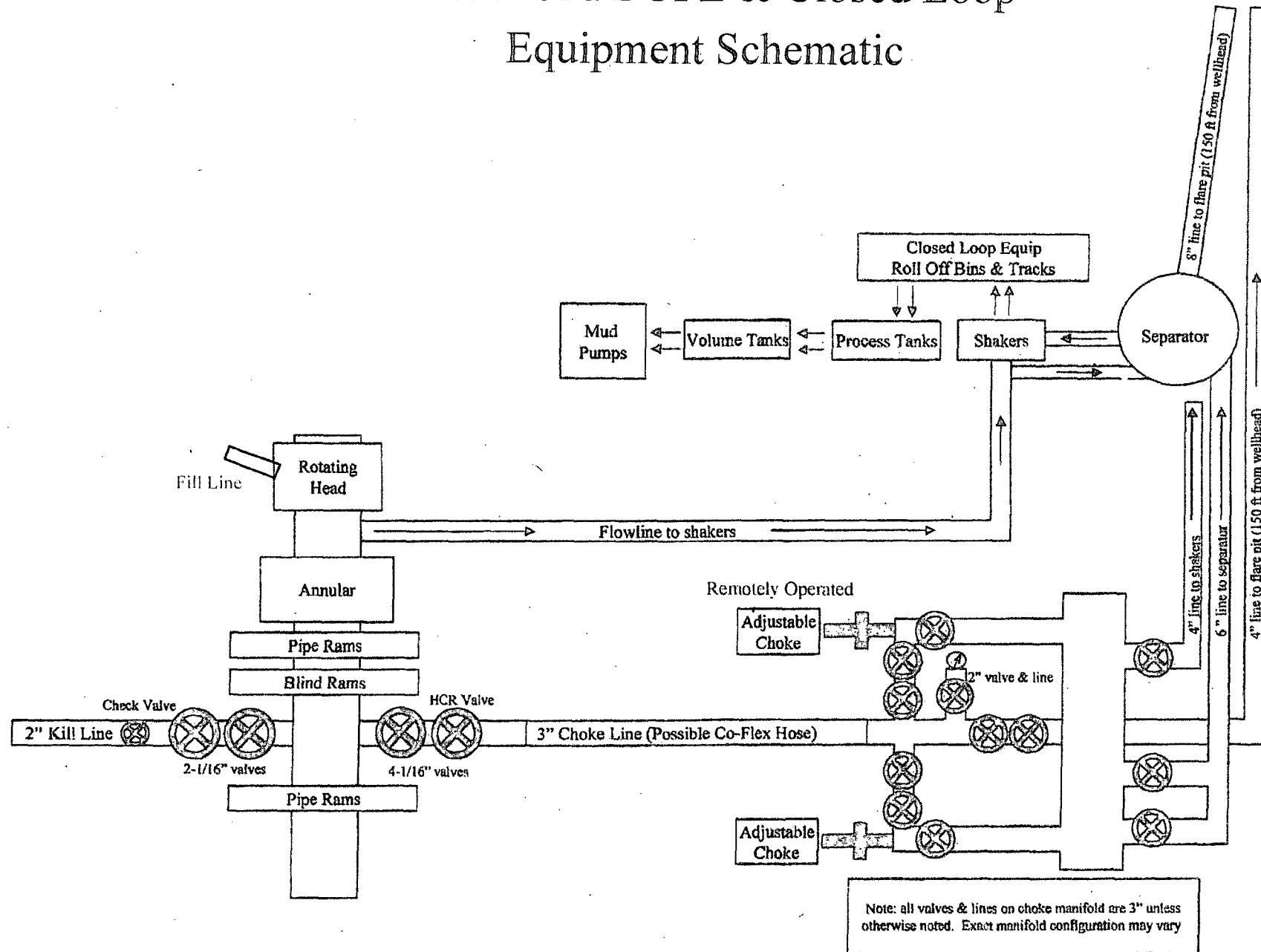
11500.00	90.69	355.82	10407.36	1264.51	-223.95	0.00	0.00	0.00	1277.47
11600.00	90.69	355.82	10406.17	1364.23	-231.25	0.00	0.00	0.00	1377.46
11700.00	90.69	355.82	10404.97	1463.96	-238.54	0.00	0.00	0.00	1477.45
11800.00	90.69	355.82	10403.78	1563.69	-245.83	0.00	0.00	0.00	1577.44
11900.00	90.69	355.82	10402.58	1663.41	-253.13	0.00	0.00	0.00	1677.44
12000.00	90.69	355.82	10401.39	1763.14	-260.42	0.00	0.00	0.00	1777.43
12100.00	90.69	355.82	10400.19	1862.86	-267.71	0.00	0.00	0.00	1877.42
12200.00	90.69	355.82	10398.99	1962.59	-275.00	0.00	0.00	0.00	1977.42
12300.00	90.69	355.82	10397.80	2062.32	-282.30	0.00	0.00	0.00	2077.41
12400.00	90.69	355.82	10396.60	2162.04	-289.59	0.00	0.00	0.00	2177.40
12500.00	90.69	355.82	10395.41	2261.77	-296.88	0.00	0.00	0.00	2277.39
12600.00	90.69	355.82	10394.21	2361.50	-304.18	0.00	0.00	0.00	2377.39
12700.00	90.69	355.82	10393.02	2461.22	-311.47	0.00	0.00	0.00	2477.38
12800.00	90.69	355.82	10391.82	2560.95	-318.76	0.00	0.00	0.00	2577.37
12900.00	90.69	355.82	10390.63	2660.68	-326.05	0.00	0.00	0.00	2677.37
13000.00	90.69	355.82	10389.43	2760.40	-333.35	0.00	0.00	0.00	2777.36
13100.00	90.69	355.82	10388.23	2860.13	-340.64	0.00	0.00	0.00	2877.35
13200.00	90.69	355.82	10387.04	2959.86	-347.93	0.00	0.00	0.00	2977.34
13300.00	90.69	355.82	10385.84	3059.58	-355.23	0.00	0.00	0.00	3077.34
13400.00	90.69	355.82	10384.65	3159.31	-362.52	0.00	0.00	0.00	3177.33
13500.00	90.69	355.82	10383.45	3259.04	-369.81	0.00	0.00	0.00	3277.32
13600.00	90.69	355.82	10382.26	3358.76	-377.10	0.00	0.00	0.00	3377.32
13700.00	90.69	355.82	10381.06	3458.49	-384.40	0.00	0.00	0.00	3477.31
13800.00	90.69	355.82	10379.87	3558.22	-391.69	0.00	0.00	0.00	3577.30
13900.00	90.69	355.82	10378.67	3657.94	-398.98	0.00	0.00	0.00	3677.29
14000.00	90.69	355.82	10377.47	3757.67	-406.28	0.00	0.00	0.00	3777.29
14100.00	90.69	355.82	10376.28	3857.40	-413.57	0.00	0.00	0.00	3877.28
14200.00	90.69	355.82	10375.08	3957.12	-420.86	0.00	0.00	0.00	3977.27
14300.00	90.69	355.82	10373.89	4056.85	-428.15	0.00	0.00	0.00	4077.27
14400.00	90.69	355.82	10372.69	4156.58	-435.45	0.00	0.00	0.00	4177.26
14500.00	90.69	355.82	10371.50	4256.30	-442.74	0.00	0.00	0.00	4277.25
14600.00	90.69	355.82	10370.30	4356.03	-450.03	0.00	0.00	0.00	4377.24
14700.00	90.69	355.82	10369.11	4455.75	-457.33	0.00	0.00	0.00	4477.24
14800.00	90.69	355.82	10367.91	4555.48	-464.62	0.00	0.00	0.00	4577.23
14900.00	90.69	355.82	10366.71	4655.21	-471.91	0.00	0.00	0.00	4677.22
15000.00	90.69	355.82	10365.52	4754.93	-479.20	0.00	0.00	0.00	4777.22
15100.00	90.69	355.82	10364.32	4854.66	-486.50	0.00	0.00	0.00	4877.21
15200.00	90.69	355.82	10363.13	4954.39	-493.79	0.00	0.00	0.00	4977.20
15300.00	90.69	355.82	10361.93	5054.11	-501.08	0.00	0.00	0.00	5077.19
15377.99	90.69	355.82	10361.00	5131.89	-506.77	0.00	0.00	0.00	5155.18

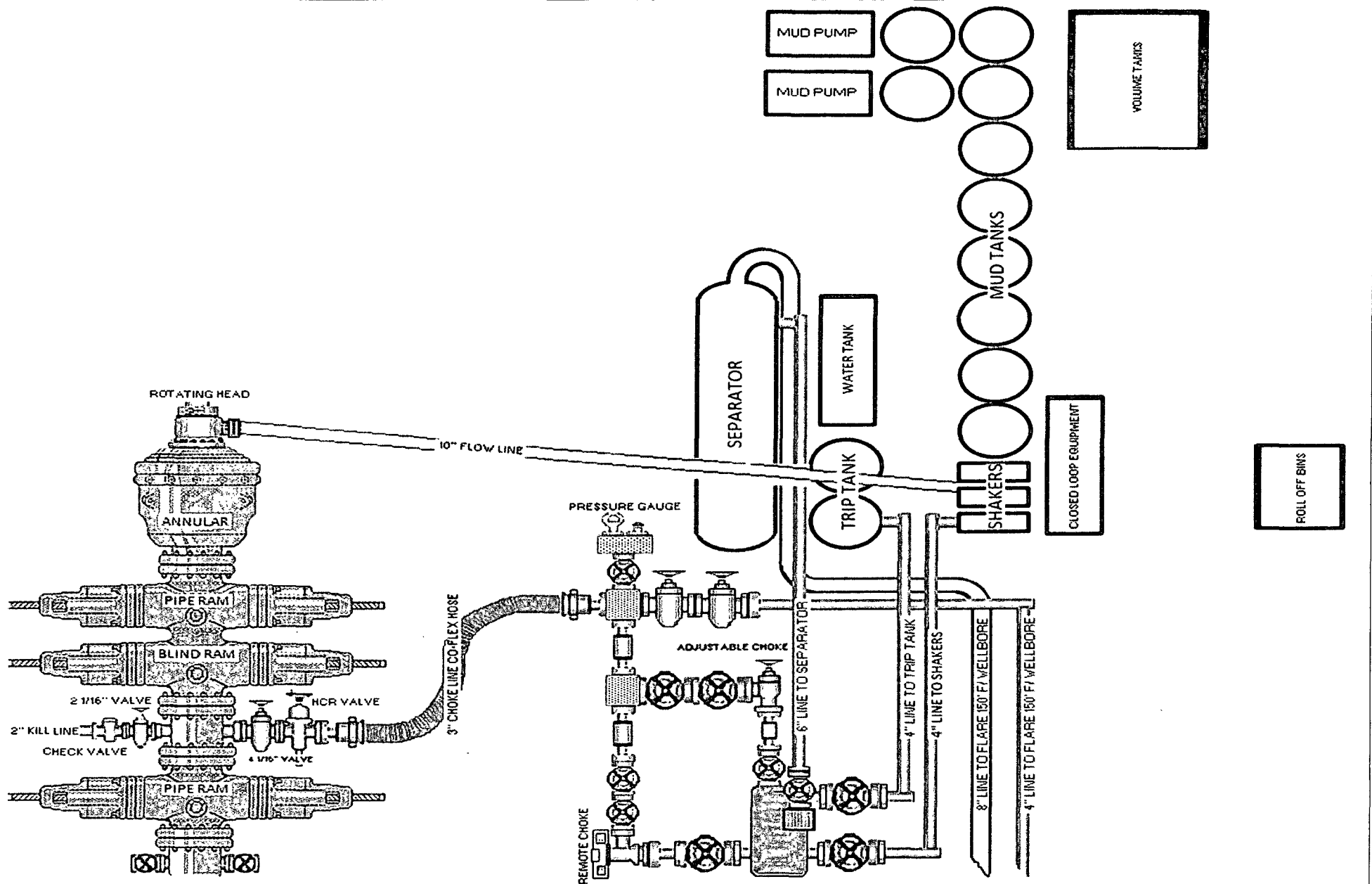
NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, L.P.
Boundary Raider 6 Fed 2H

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 filings will be in operable condition to withstand a minimum of 5000psi working pressure.
4. All fittings will be flanged.
5. A fill bore safety valve tested to a minimum of 5000psi 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.

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





Note: All valve and lines on choke manifold are 3" unless otherwise noted.

devon

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

Rig:	H&P 223	Rev:	0
Drawn By:	Garrett Glaze	Review Date:	
Date:	07/22/2013	Checked By:	
Scale: Drawing is not to scale		Check Date:	



Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST CERTIFICATE

Customer: ODESSA		Customer P.O. Number: 195335
HOSE SPECIFICATIONS		
Type: CHOKER HOSE MUD / API 7K		Hose Length: 35 FT
I.D. 3 INCHES		O.D. 4.70 INCHES
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE N/A PSI
COUPLINGS		
Part Number E3.0X64WB E3.0X64WB	Stem Lot Number 1Q11LOT1 1Q11LOT1	Ferrule Lot Number 120277 120277
Type of Coupling: SWAGE-IT		Die Size: 5.25
PROCEDURE		
<i>Hose assembly pressure tested with water at ambient temperature.</i>		
TIME HELD AT TEST PRESSURE 4 MIN.		ACTUAL BURST PRESSURE: N/A PSI
Hose Assembly Serial Number: 214810		Hose Serial Number: 7930
Comments:		
Date: 8/26/2013	Tested: <i>[Signature]</i>	Approved: <i>[Signature]</i>



Midwest Hose
& Specialty, Inc.

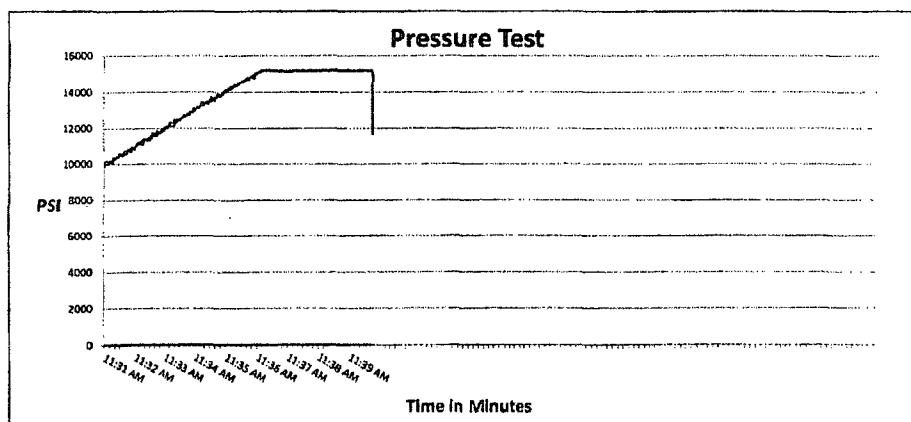
Internal Hydrostatic Test Graph

August 26, 2013

Customer: Odessa

Pick Ticket #: 214810

Hose Specifications		Verification	
Hose Type	Length	Type of Fitting	Coupling Method
Mud	35'	4 1/16 10K	Swage
I.D.	O.D.	Die Size	Final O.D.
3"	4.70"	5.25"	5.25"
Working Pressure	Burst Pressure	Hose Serial #	Hose Assembly Serial #
10000 PSI	Standards Safety Multiplier Applies	7930	214810



Test Pressure
15000 PSI

Time Held at Test Pressure
4 Minutes

Actual Burst Pressure

Peak Pressure
15396 PSI

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

Tested By: Tony Keillington

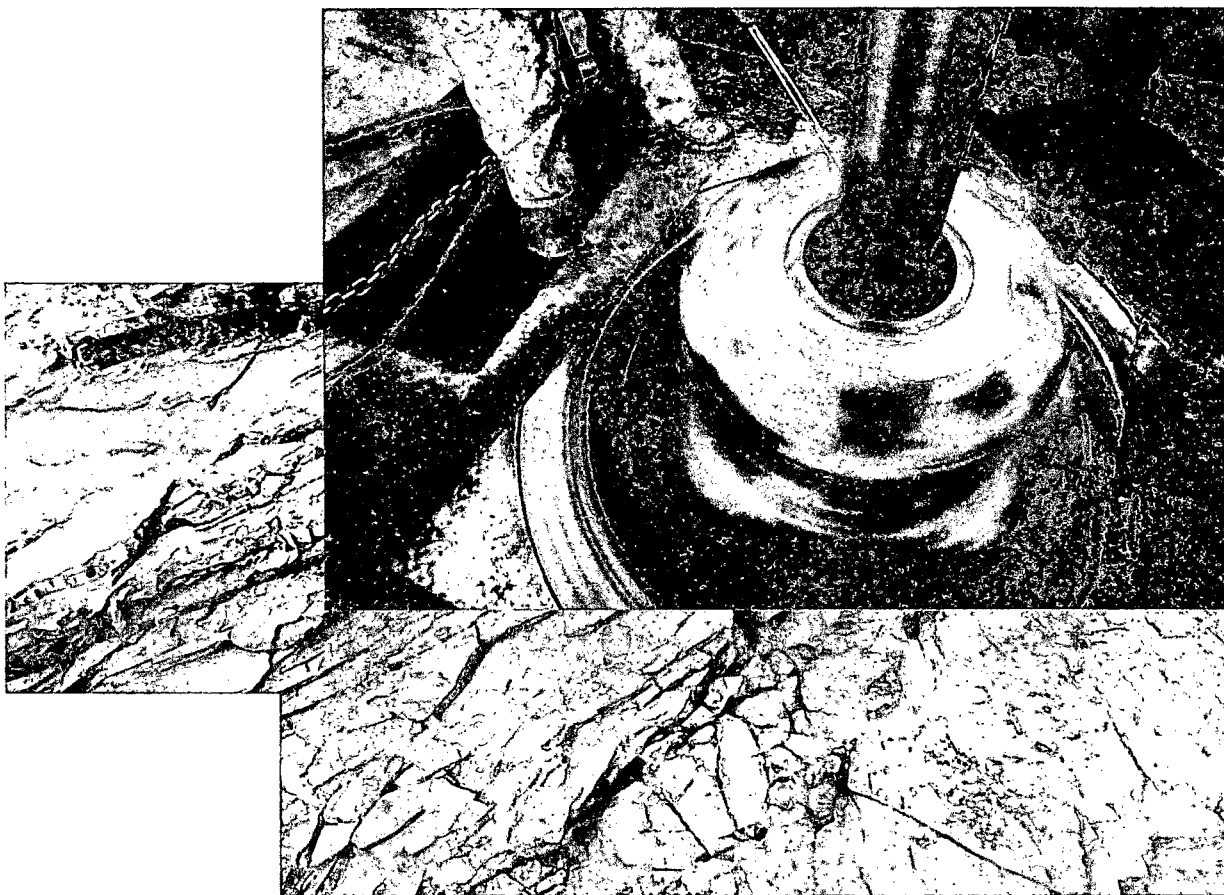
Approved By: Ryan Adams

T. Keillington

R. Adams



Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

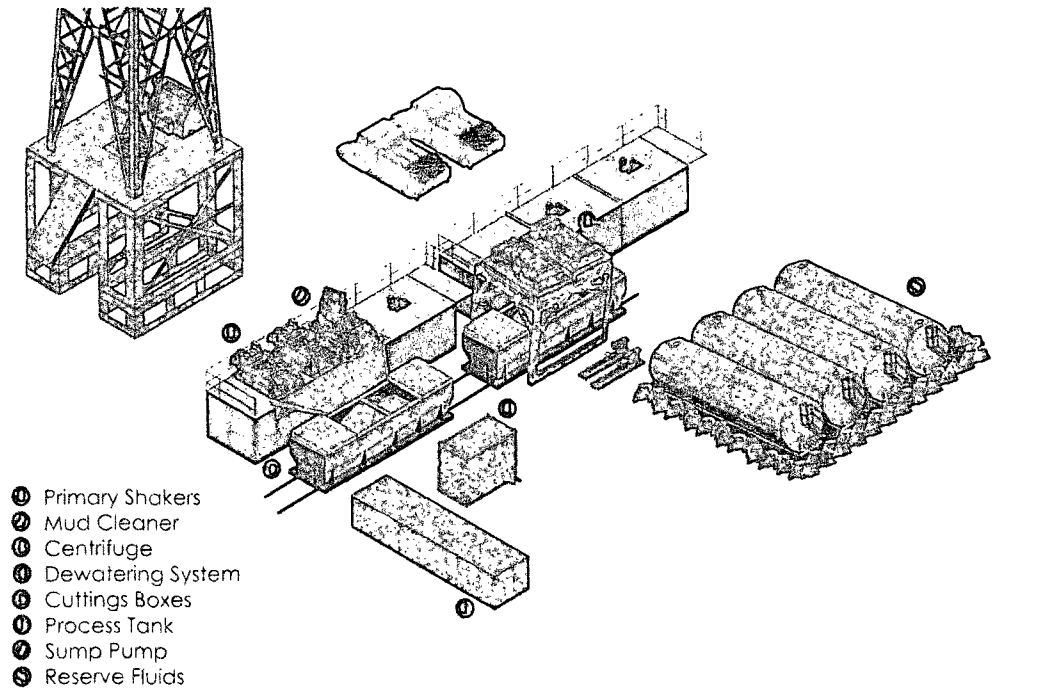
II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Closed Loop Schematic



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

Form NM 8140-9
(March 2008)

United States Department of the Interior
Bureau of Land Management
New Mexico State Office

Permian Basin Cultural Resource Mitigation Fund

The company shown below has agreed to contribute funding to the Permian Basin Cultural Resource Fund in lieu of being required to conduct a Class III survey for cultural resources associated with their project. This form verifies that the company has elected to have the Bureau of Land Management (BLM) follow the procedures specified within the Memorandum of Agreement (MOA) concerning improved strategies for managing historic properties within the Permian Basin, New Mexico, for the undertaking rather than the Protocol to meet the agency's Section 106 obligations.

Company Name: Devon Energy Production Co., LP

Address: 333 W. Sheridan, OKC, OK 73102

Project description: Application for Permit to Drill

Cultural Resource Inventory for the Boundary Raider 6 Fed 2H proposed well location and access road.

Application for Permit to Drill (wells and immediate environment)

-\$1,507 well for the pad and a ¼ mile of road

-Anything over ¼ mile of road is \$0.18/linear foot

-Total arch cost \$1,507.00

5,280 = 1 mile => ¼ = 1,320

Total access road: 62' - ¼ mile of road included (1320) = 0' over 1320'

0' x \$0.18 = \$0.00

(See above & see well pad topo)

T. 23S, R. 32E, Section 7 NMPM, Lea County, New Mexico

Amount of contribution: \$ 1,507.00

Provisions of the MOA:

A. No new Class III inventories are required of industry within the Project Area for those projects where industry elects to contribute to the mitigation fund.

B. The amount of funds contributed was derived from the rate schedule established within Appendix B of the MOA. The amount of the funding contribution acknowledged on this form reflects those rates.

C. The BLM will utilize the funding to carry out a program of mitigation at high-priority sites whose study is needed to answer key questions identified within the Regional Research Design.

D. Donating to the fund is voluntary. Industry acknowledges that it is aware it has the right to pay for Class III survey rather than contributing to the mitigation fund, and that it must avoid or fund data recovery at those sites already recorded that are eligible for nomination to the National Register or whose eligibility is unknown and that any such payments are independent of the mitigation funds established by this MOA.

E. Previously recorded archeological sites determined eligible for nomination to the National Register or whose eligibility remains undetermined must be avoided or mitigated.

F. If any skeletal remains that might be human or funerary objects are discovered by any activities, the land-use applicant will cease activities in the area of discovery, protect the remains, and notify the BLM within 24 hours. The BLM will determine the appropriate treatment of the remains in consultation with culturally affiliated Indian Tribe(s) and lineal descendants. Applicants will be required to pay for treatment of the cultural items independent and outside of the mitigation fund.

____ Trina C. Couch _____
Company-Authorized Officer

12/13/2013
Date

BLM-Authorized Officer

Date

H&P Flex Rig Location Layout

