HOBBS OCD

JUN 15 2015

OCD Hobbs

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ATS-13-1042

Form 3160-3
(March 2012)

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

NORTHODOX LOCATION

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	Lease Serial No. NMLC 061936A (H)
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6. If Indian, Allotee 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 W. Sheridan Ave. Oklahoma City, OK 73102	8. Lease Name and Well No. (314977) Paduca Breaks 9 Federal 1H
3b. Phone No. (include area code) 405-228-4248	9. API Well No. 30-025-42633
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 200' FNL & 1350' FEL, Unit B, Sec 9, T25S- R32E At proposed prod. zone 330 FSL & 1980' FEL, Unit O, Sec 9, T25S-R32E	10. Field and Pool, or Exploratory (96715) WC-025 G-08 S253209L; BS
	11. Sec., T. R. M. or Blk. and Survey or Area Sec 9, T25S-R32E
14. Distance in miles and direction from nearest town or post office* Approximately 26 miles west of Jal, NM	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 520 / 17. Spacing Unit dedicated to this well W/2 E/2 Sec 9, T25S-R32E - 160 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map	19. Proposed Depth 15284' MD 10470' TVD / 20. BLM/BIA Bond No. on file CO-1104 & NMB-000801
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3466.3' GL	22. Approximate date work will start* 04/01/2014 / 23. Estimated duration 45 days

24. Attachments To be pad drilled with Paduca Breaks 9 Fed 2H

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.
2. A Drilling Plan.
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).
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 BLM.

25. Signature Patti Riechers	Name (Printed/Typed) Patti Riechers	Date 07/18/2013
Title Regulatory Specialist		
Approved by (Signature) Steve Caffey	Name (Printed/Typed)	Date JUN 5 2015
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 06/15/15

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

JUN 16 2015

RJC 6.20.13

HOBBS OCD

JUN 1 5 2015

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DRILLING PROGRAM

Devon Energy Production Company, LP

Paduca Breaks 9 Fed 1H

Surface Location: 200' FNL & 1350' FEL, Unit B, Sec 9 T25S R32E, Lea, NM
Bottom Hole Location: 330' FSL & 1980' FEL, Unit O, Sec 9 T25S R32E, Lea, NM

1. Geologic Name of Surface Formation

a. Quaternary

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

a.	FRESH WATER	290	
b.	RUSTLER	676	no shows
c.	TOP SALT	975	no shows
d.	BASE SALT	4,163	no shows
e.	DELAWARE	4,386	Oil & Gas Shows
f.	CHERRY CANYON	5,256	
g.	BRUSHY CANYON	6,786	
h.	Bone Spring Lime	8,410	Oil & Gas Shows
i.	1st Bone Spring Sand	9,318	Oil & Gas Shows
j.	2nd Bone Spring Sand	9,960	Oil & Gas Shows
k.	KOP	9,897	Oil & Gas Shows
l.	Target 2nd BSSS (0' vert. sec)	10,470	Oil & Gas Shows
m.	2nd BSSS Target (Heel)	10,797	Oil & Gas Shows
n.	2nd BSSS Target (Toe)	14,974	Oil & Gas Shows

Total Depth 15,284' MD 10,470' TVD

3. Casing Program: (All casing is new and API approved.)

See COA

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight	Collar	Grade
17-1/2"	0 - ~~750'~~ 875'	13-3/8"	0 – ~~750'~~	48#	STC	H-40
12-1/4"	~~750' - 4,350'~~ 4600'	9-5/8"	0 - ~~4,350'~~	40#	LTC	HCK-55
8-3/4"	~~4,350'~~ - 9,950'	5-1/2"	0 - 9,950'	17#	LTC	HCP-110
8-3/4"	9,950' - 15,284'	5-1/2"	9,950' - 15,284'	17#	BTC	HCP-110

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13-3/8"	1.98	4.44	7.88
9-5/8"	1.87	1.75	3.99
5-1/2" LTC	1.84	2.29	2.63
5-1/2" BTC	1.75	2.17	2.19

The maximum possible collapse load that the intermediate casing will experience will result from evacuated casing with the pore pressure exerting a collapse load at TD. There is no potential for the intermediate casing to be used as the injection string. All casing will be new and to API specification.

4. Cement Program: (cement volumes Surface 100%/ Intermediate 50% Production based on at least 25% excess):

13-3/8" Surface	**Tail**: 800 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg **Yield:** 1.35 cf/sk **TOC @ surface**
9-5/8" Intermediate	**Lead**: 965 sacks (65:35) Class C Cement:Poz (Fly Ash): + 5% bwow Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 6% bwoc Bentonite + 70.9% Fresh Water, 12.9 ppg **Yield**: 1.85 cf/sk **TOC @ surface** **Tail**: 375 sacks Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Water, 14.8 ppg **Yield**: 1.33 cf/sk
5-1/2" Production	**1st Lead:** 400 sacks (50:50) Class H Cement:Poz (Fly Ash) + 10% bwoc Bentonite + 8 lb/sk Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 0.3% bwoc HR-601 + 0.3% bwoc Econolite + 77.2% Fresh Water, 11.8 ppg **Yield**: 2.52 cf/sk **2nd Lead:** 550 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% bwoc Bentonite + 0.125 lbs/sack Poly-E-Flake + 0.1% bwoc HR-601 + 74.1% Fresh Water, 12.5 ppg **Yield**: 1.95 cf/sk **Tail**: 1885 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg **Yield**: 1.22 cf/sk **TOC @** ~~**3850'**~~ See COA

The above cement volumes could be revised pending the caliper measurement from the open hole logs.

5. Pressure Control Equipment

A 3M 13-5/8" BOP system (Double 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 3M 13-5/8" BOP system (Double 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 3,000 psi WP.

See COA

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.
c. 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.

See COA

6. Proposed Mud Circulation System

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0 – ~~750'~~ 875'	8.4-9.6	32-34	NC	FW
~~750' – 4,350'~~ 4600'	10.0	28	NC	Brine
~~4,350'~~ – 15,284'	8.4-10.0	28-30	N-12	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.

RJC 6.20.13

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 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.

8. **Potential Hazards:**
   - **a.** No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. 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 4800 psi and Estimated BHT 135°. No H2S is anticipated to be encountered.

See COA

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 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.

Weatherford®

Drilling Services

Proposal

devon

PADUCA BREAKS 9 FEDERAL 1H

LEA COUNTY, NM

WELL FILE: **PLAN 1**

JUNE 20, 2013

Weatherford International, Ltd.
P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www.weatherford.com

devon

Copperhead 34 Federal 1H
Lea County, New Mexico

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	9950.10	0.00	0.00	9950.10	0.00	0.00	0.00	0.00	0.00	
3	10617.17	80.05	241.59	10420.37	-187.91	-347.39	12.00	241.59	229.63	
4	11134.29	90.00	180.00	10470.00	-609.70	-596.20	12.00	-84.66	679.08	
5	15284.31	90.00	180.00	10470.00	-4759.72	-596.24	0.00	0.00	4796.92	PBHL 1H

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Paduca Breaks 9 Federal 1H	0.00	0.00	419535.53	744827.84	32°09'06.016N	103°40'32.931W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL 1H	10470.00	-4759.72	-596.24	414775.81	744231.60	Rectangle (4150x50)

SITE DETAILS

Paduca Breaks 9 Federal 1H, 2H Pad

Site Centre Northing: 419535.53
Easting: 744827.84

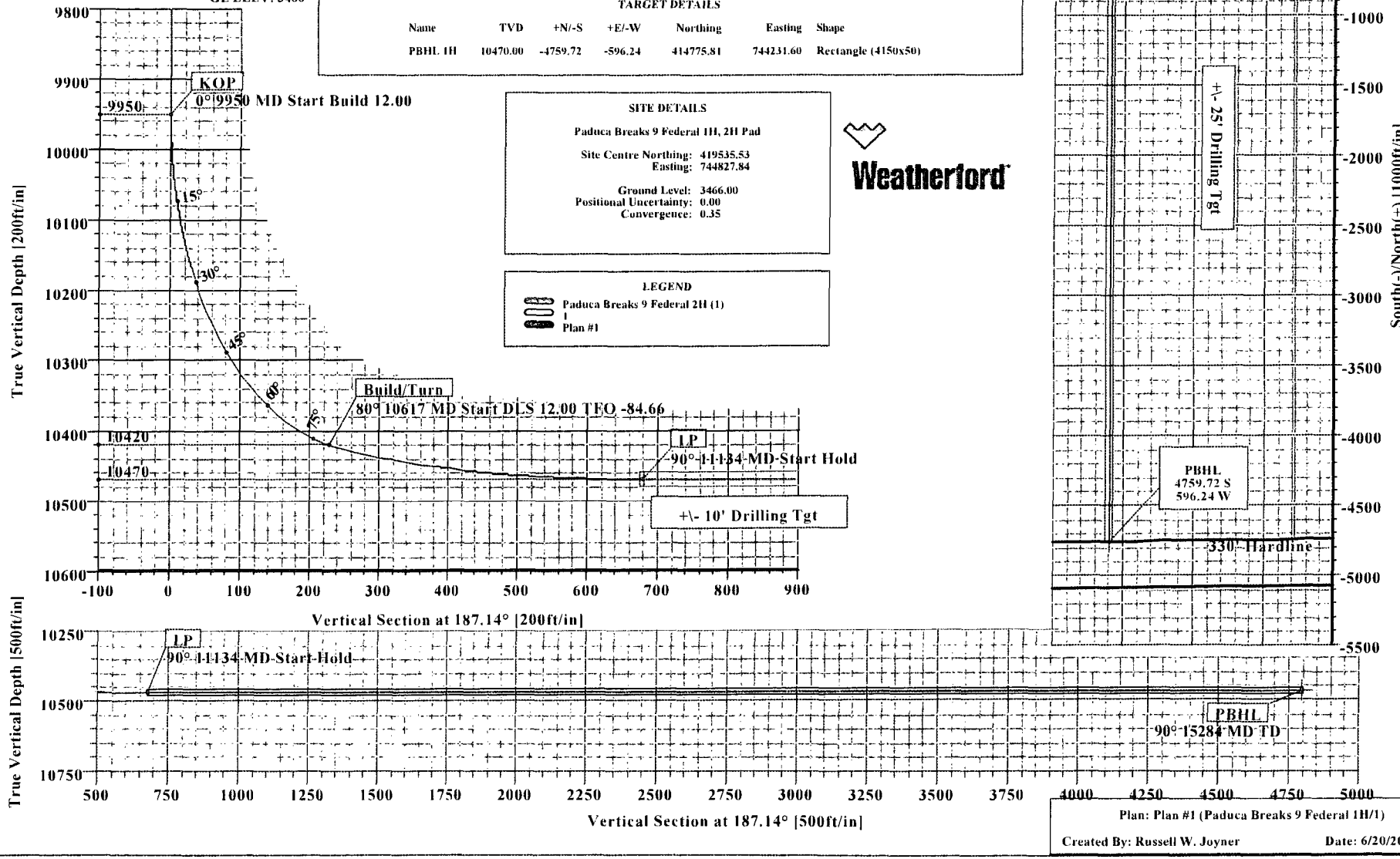
Ground Level: 3466.00
Positional Uncertainty: 0.00
Convergence: 0.35

LEGEND

Paduca Breaks 9 Federal 2H (1)
Plan #1

Weatherford

KB ELEV: 3494
GL ELEV: 3466



Plan: Plan #1 (Paduca Breaks 9 Federal 1H/1)

Created By: Russell W. Joyner Date: 6/20/2013

devon

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Wft Plan Report X Y's.

Weatherford

Company:	Devon Energy	**Date:** 6/20/2013 **Time:** 15:11:32	**Page:** 1
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Paduca Breaks 9 Federal 1H
Site:	Paduca Breaks 9 Federal 1H, 2H Pad	**Vertical (TVD) Reference:**	SITE 3494.0
Well:	Paduca Breaks 9 Federal 1H	**Section (VS) Reference:**	Well (0.00N,0.00E,187.14Azi)
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Plan:	Plan #1	**Date Composed:**	6/20/2013
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Site: Paduca Breaks 9 Federal 1H, 2H Pad

Site Position:		**Northing:**	419535.53 ft	**Latitude:**	32 9 6.016 N
From:	Map	**Easting:**	744827.84 ft	**Longitude:**	103 40 32.931 W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	3466.00 ft			**Grid Convergence:**	0.35 deg

Well: Paduca Breaks 9 Federal 1H **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	419535.53 ft	**Latitude:**	32 9 6.016 N
	+E/-W	0.00 ft	**Easting:**	744827.84 ft	**Longitude:**	103 40 32.931 W
Position Uncertainty:		0.00 ft				

Wellpath: 1		**Drilled From:**	Surface
		Tie-on Depth:	0.00 ft
Current Datum: SITE	**Height** 3494.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data: 9/10/2013		**Declination:**	7.35 deg
Field Strength: 48363 nT		**Mag Dip Angle:**	60.05 deg

Vertical Section: Depth From (TVD) ft	+N/-S ft	+E/-W ft	Direction deg
0.00	0.00	0.00	187.14

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9950.10	0.00	0.00	9950.10	0.00	0.00	0.00	0.00	0.00	0.00	
10617.17	80.05	241.59	10420.37	-187.91	-347.39	12.00	12.00	0.00	241.59	
11134.29	90.00	180.00	10470.00	-609.70	-596.20	12.00	1.92	-11.91	-84.66	
15284.31	90.00	180.00	10470.00	-4759.72	-596.24	0.00	0.00	0.00	0.00	PBHL 1H

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9900.00	0.00	0.00	9900.00	0.00	0.00	0.00	0.00	419535.53	744827.84	
9950.10	0.00	0.00	9950.10	0.00	0.00	0.00	0.00	419535.53	744827.84	KOP
10000.00	5.99	241.59	9999.91	-1.24	-2.29	1.51	12.00	419534.29	744825.55	
10100.00	17.99	241.59	10097.55	-11.10	-20.53	13.57	12.00	419524.43	744807.31	
10200.00	29.99	241.59	10188.75	-30.41	-56.22	37.16	12.00	419505.12	744771.62	
10300.00	41.99	241.59	10269.51	-58.32	-107.81	71.27	12.00	419477.21	744720.03	
10400.00	53.99	241.59	10336.32	-93.60	-173.05	114.39	12.00	419441.93	744654.79	
10500.00	65.99	241.59	10386.24	-134.73	-249.07	164.64	12.00	419400.80	744578.77	
10600.00	77.99	241.59	10417.10	-179.89	-332.57	219.83	12.00	419355.64	744495.27	
10617.17	80.05	241.59	10420.37	-187.91	-347.39	229.63	12.00	419347.62	744480.45	Build/Turn
10700.00	81.12	231.57	10433.96	-232.86	-415.50	282.70	12.00	419302.67	744412.34	
10800.00	82.76	219.57	10448.03	-302.06	-486.05	360.13	12.00	419233.47	744341.79	
10900.00	84.71	207.65	10458.98	-384.70	-540.95	448.95	12.00	419150.83	744286.89	
11000.00	86.89	195.82	10466.33	-477.17	-577.80	545.29	12.00	419058.36	744250.04	
11100.00	89.20	184.04	10469.76	-575.44	-595.00	644.93	12.00	418960.09	744232.84	
11134.29	90.00	180.00	10470.00	-609.70	-596.20	679.08	12.00	418925.83	744231.64	LP
11200.00	90.00	180.00	10470.00	-675.41	-596.20	744.27	0.00	418860.12	744231.64	
11300.00	90.00	180.00	10470.00	-775.41	-596.21	843.50	0.00	418760.12	744231.63	
11400.00	90.00	180.00	10470.00	-875.41	-596.21	942.72	0.00	418660.12	744231.63	
11500.00	90.00	180.00	10470.00	-975.41	-596.21	1041.95	0.00	418560.12	744231.63	
11600.00	90.00	180.00	10470.00	-1075.41	-596.21	1141.17	0.00	418460.12	744231.63	
11700.00	90.00	180.00	10470.00	-1175.41	-596.21	1240.40	0.00	418360.12	744231.63	

devon

Weatherford
Wft Plan Report X Y's.

Weatherford

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Paduca Breaks 9 Federal 1H, 2H Pad
Well: Paduca Breaks 9 Federal 1H
Wellpath: 1

Date: 6/20/2013 **Time:** 15:11:32 **Page:** 2
Co-ordinate(NE) Reference: Well: Paduca Breaks 9 Federal 1H
Vertical (TVD) Reference: SITE 3494.0
Section (VS) Reference: Well (0.00N,0.00E,187.14Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
11800.00	90.00	180.00	10470.00	-1275.41	-596.21	1339.62	0.00	418260.12	744231.63	
11900.00	90.00	180.00	10470.00	-1375.41	-596.21	1438.85	0.00	418160.12	744231.63	
12000.00	90.00	180.00	10470.00	-1475.41	-596.21	1538.07	0.00	418060.12	744231.63	
12100.00	90.00	180.00	10470.00	-1575.41	-596.21	1637.30	0.00	417960.12	744231.63	
12200.00	90.00	180.00	10470.00	-1675.41	-596.21	1736.52	0.00	417860.12	744231.63	
12300.00	90.00	180.00	10470.00	-1775.41	-596.21	1835.75	0.00	417760.12	744231.63	
12400.00	90.00	180.00	10470.00	-1875.41	-596.22	1934.97	0.00	417660.12	744231.62	
12500.00	90.00	180.00	10470.00	-1975.41	-596.22	2034.19	0.00	417560.12	744231.62	
12600.00	90.00	180.00	10470.00	-2075.41	-596.22	2133.42	0.00	417460.12	744231.62	
12700.00	90.00	180.00	10470.00	-2175.41	-596.22	2232.64	0.00	417360.12	744231.62	
12800.00	90.00	180.00	10470.00	-2275.41	-596.22	2331.87	0.00	417260.12	744231.62	
12900.00	90.00	180.00	10470.00	-2375.41	-596.22	2431.09	0.00	417160.12	744231.62	
13000.00	90.00	180.00	10470.00	-2475.41	-596.22	2530.32	0.00	417060.12	744231.62	
13100.00	90.00	180.00	10470.00	-2575.41	-596.22	2629.54	0.00	416960.12	744231.62	
13200.00	90.00	180.00	10470.00	-2675.41	-596.22	2728.77	0.00	416860.12	744231.62	
13300.00	90.00	180.00	10470.00	-2775.41	-596.22	2827.99	0.00	416760.12	744231.62	
13400.00	90.00	180.00	10470.00	-2875.41	-596.22	2927.22	0.00	416660.12	744231.62	
13500.00	90.00	180.00	10470.00	-2975.41	-596.22	3026.44	0.00	416560.12	744231.62	
13600.00	90.00	180.00	10470.00	-3075.41	-596.23	3125.67	0.00	416460.12	744231.61	
13700.00	90.00	180.00	10470.00	-3175.41	-596.23	3224.89	0.00	416360.12	744231.61	
13800.00	90.00	180.00	10470.00	-3275.41	-596.23	3324.12	0.00	416260.12	744231.61	
13900.00	90.00	180.00	10470.00	-3375.41	-596.23	3423.34	0.00	416160.12	744231.61	
14000.00	90.00	180.00	10470.00	-3475.41	-596.23	3522.56	0.00	416060.12	744231.61	
14100.00	90.00	180.00	10470.00	-3575.41	-596.23	3621.79	0.00	415960.12	744231.61	
14200.00	90.00	180.00	10470.00	-3675.41	-596.23	3721.01	0.00	415860.12	744231.61	
14300.00	90.00	180.00	10470.00	-3775.41	-596.23	3820.24	0.00	415760.12	744231.61	
14400.00	90.00	180.00	10470.00	-3875.41	-596.23	3919.46	0.00	415660.12	744231.61	
14500.00	90.00	180.00	10470.00	-3975.41	-596.23	4018.69	0.00	415560.12	744231.61	
14600.00	90.00	180.00	10470.00	-4075.41	-596.23	4117.91	0.00	415460.12	744231.61	
14700.00	90.00	180.00	10470.00	-4175.41	-596.23	4217.14	0.00	415360.12	744231.61	
14800.00	90.00	180.00	10470.00	-4275.41	-596.24	4316.36	0.00	415260.12	744231.60	
14900.00	90.00	180.00	10470.00	-4375.41	-596.24	4415.59	0.00	415160.12	744231.60	
15000.00	90.00	180.00	10470.00	-4475.41	-596.24	4514.81	0.00	415060.12	744231.60	
15100.00	90.00	180.00	10470.00	-4575.41	-596.24	4614.04	0.00	414960.12	744231.60	
15200.00	90.00	180.00	10470.00	-4675.41	-596.24	4713.26	0.00	414860.12	744231.60	
15284.31	90.00	180.00	10470.00	-4759.72	-596.24	4796.92	0.00	414775.81	744231.60	PBHL 1H

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg	Min	Sec	<--- Longitude ---> Deg	Min	Sec
PBHL 1H			10470.00	-4759.72	-596.24	414775.81	744231.60	32	8	18.952 N	103	40	40.203 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Company:	Devon Energy	**Date:** 6/20/2013	**Time:** 15:11:32	**Page:**	3
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Paduca Breaks 9 Federal 1H		
Site:	Paduca Breaks 9 Federal 1H, 2H Pad	**Vertical (TVD) Reference:**	SITE 3494.0		
Well:	Paduca Breaks 9 Federal 1H	**Section (VS) Reference:**	Well (0.00N,0.00E,187.14Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD ft	TVD ft	
9950.10	9950.10	KOP
10617.17	10420.37	Build/Turn
11134.29	10470.00	LP
15284.31	10470.00	PBHL

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 6/20/2013	**Time:** 16:20:35	**Page:**	1
Field:	Lea County, New Mexico (NAD 83)				
Reference Site:	Paduca Breaks 9 Federal 1H, 2H Pad	**Co-ordinate(NE) Reference:**	Well: Paduca Breaks 9 Federal 1H		
Reference Well:	Paduca Breaks 9 Federal 1H	**Vertical (TVD) Reference:**	SITE 3494.0		
Reference Wellpath:	1			**Db:**	Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria		**Reference:**	Plan: Plan #1
Interpolation Method:	MD + Stations **Interval:** 100.00 ft	**Error Model:**	ISCWSA Ellipse
Depth Range:	0.00 **to** 15284.31 ft	**Scan Method:**	Closest Approach 3D
Maximum Radius:	10000.00 ft	**Error Surface:**	Ellipse

Plan:	Plan #1	**Date Composed:**	6/20/2013
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Summary

<---------- Offset Wellpath ----------> Site	Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Paduca Breaks 9 Fede	Paduca Breaks 9 Fede	1 V1 Plan: Plan #1 V1	5600.00	5600.00	50.00	25.12	2.01	

Site: Paduca Breaks 9 Federal 1H, 2H Pad
Well: Paduca Breaks 9 Federal 2H
Wellpath: 1 V1 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.46	0.47	50.00	50.00			No Data
100.00	100.00	100.00	100.00	0.08	0.08	89.46	0.47	50.00	50.00	49.84	308.98	
200.00	200.00	200.00	200.00	0.31	0.31	89.46	0.47	50.00	50.00	49.39	81.79	
300.00	300.00	300.00	300.00	0.53	0.53	89.46	0.47	50.00	50.00	48.94	47.13	
400.00	400.00	400.00	400.00	0.76	0.76	89.46	0.47	50.00	50.00	48.49	33.10	
500.00	500.00	500.00	500.00	0.98	0.98	89.46	0.47	50.00	50.00	48.04	25.51	
600.00	600.00	600.00	600.00	1.20	1.20	89.46	0.47	50.00	50.00	47.59	20.75	
700.00	700.00	700.00	700.00	1.43	1.43	89.46	0.47	50.00	50.00	47.14	17.49	
800.00	800.00	800.00	800.00	1.65	1.65	89.46	0.47	50.00	50.00	46.69	15.11	
900.00	900.00	900.00	900.00	1.88	1.88	89.46	0.47	50.00	50.00	46.24	13.31	
1000.00	1000.00	1000.00	1000.00	2.10	2.10	89.46	0.47	50.00	50.00	45.79	11.88	
1100.00	1100.00	1100.00	1100.00	2.33	2.33	89.46	0.47	50.00	50.00	45.35	10.74	
1200.00	1200.00	1200.00	1200.00	2.55	2.55	89.46	0.47	50.00	50.00	44.90	9.79	
1300.00	1300.00	1300.00	1300.00	2.78	2.78	89.46	0.47	50.00	50.00	44.45	9.00	
1400.00	1400.00	1400.00	1400.00	3.00	3.00	89.46	0.47	50.00	50.00	44.00	8.33	
1500.00	1500.00	1500.00	1500.00	3.23	3.23	89.46	0.47	50.00	50.00	43.55	7.75	
1600.00	1600.00	1600.00	1600.00	3.45	3.45	89.46	0.47	50.00	50.00	43.10	7.24	
1700.00	1700.00	1700.00	1700.00	3.68	3.68	89.46	0.47	50.00	50.00	42.65	6.80	
1800.00	1800.00	1800.00	1800.00	3.90	3.90	89.46	0.47	50.00	50.00	42.20	6.41	
1900.00	1900.00	1900.00	1900.00	4.13	4.13	89.46	0.47	50.00	50.00	41.75	6.06	
2000.00	2000.00	2000.00	2000.00	4.35	4.35	89.46	0.47	50.00	50.00	41.30	5.75	
2100.00	2100.00	2100.00	2100.00	4.58	4.58	89.46	0.47	50.00	50.00	40.85	5.46	
2200.00	2200.00	2200.00	2200.00	4.80	4.80	89.46	0.47	50.00	50.00	40.40	5.21	
2300.00	2300.00	2300.00	2300.00	5.03	5.03	89.46	0.47	50.00	50.00	39.95	4.97	
2400.00	2400.00	2400.00	2400.00	5.25	5.25	89.46	0.47	50.00	50.00	39.50	4.76	
2500.00	2500.00	2500.00	2500.00	5.48	5.48	89.46	0.47	50.00	50.00	39.05	4.57	
2600.00	2600.00	2600.00	2600.00	5.70	5.70	89.46	0.47	50.00	50.00	38.60	4.39	
2700.00	2700.00	2700.00	2700.00	5.92	5.92	89.46	0.47	50.00	50.00	38.15	4.22	
2800.00	2800.00	2800.00	2800.00	6.15	6.15	89.46	0.47	50.00	50.00	37.70	4.07	
2900.00	2900.00	2900.00	2900.00	6.37	6.37	89.46	0.47	50.00	50.00	37.25	3.92	
3000.00	3000.00	3000.00	3000.00	6.60	6.60	89.46	0.47	50.00	50.00	36.80	3.79	
3100.00	3100.00	3100.00	3100.00	6.82	6.82	89.46	0.47	50.00	50.00	36.35	3.66	
3200.00	3200.00	3200.00	3200.00	7.05	7.05	89.46	0.47	50.00	50.00	35.90	3.55	
3300.00	3300.00	3300.00	3300.00	7.27	7.27	89.46	0.47	50.00	50.00	35.46	3.44	
3400.00	3400.00	3400.00	3400.00	7.50	7.50	89.46	0.47	50.00	50.00	35.01	3.33	
3500.00	3500.00	3500.00	3500.00	7.72	7.72	89.46	0.47	50.00	50.00	34.56	3.24	

Company:	Devon Energy	**Date:** 6/20/2013 **Time:** 16:20:35	**Page:** 2
Field:	Lea County, New Mexico (NAD 83)		
Reference Site:	Paduca Breaks 9 Federal 1H, 2H Pad	**Co-ordinate(NE) Reference:**	Well: Paduca Breaks 9 Federal 1H
Reference Well:	Paduca Breaks 9 Federal 1H	**Vertical (TVD) Reference:**	SITE 3494.0
Reference Wellpath:			**Db:** Sybase

Site: Paduca Breaks 9 Federal 1H, 2H Pad
Well: Paduca Breaks 9 Federal 2H
Wellpath: 1 V1 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Separation Distance ft	Factor	Warning
3600.00	3600.00	3600.00	3600.00	7.95	7.95	89.46	0.47	50.00	50.00	34.11	3.15	
3700.00	3700.00	3700.00	3700.00	8.17	8.17	89.46	0.47	50.00	50.00	33.66	3.06	
3800.00	3800.00	3800.00	3800.00	8.40	8.40	89.46	0.47	50.00	50.00	33.21	2.98	
3900.00	3900.00	3900.00	3900.00	8.62	8.62	89.46	0.47	50.00	50.00	32.76	2.90	
4000.00	4000.00	4000.00	4000.00	8.85	8.85	89.46	0.47	50.00	50.00	32.31	2.83	
4100.00	4100.00	4100.00	4100.00	9.07	9.07	89.46	0.47	50.00	50.00	31.86	2.76	
4200.00	4200.00	4200.00	4200.00	9.30	9.30	89.46	0.47	50.00	50.00	31.41	2.69	
4300.00	4300.00	4300.00	4300.00	9.52	9.52	89.46	0.47	50.00	50.00	30.96	2.63	
4400.00	4400.00	4400.00	4400.00	9.75	9.75	89.46	0.47	50.00	50.00	30.51	2.57	
4500.00	4500.00	4500.00	4500.00	9.97	9.97	89.46	0.47	50.00	50.00	30.06	2.51	
4600.00	4600.00	4600.00	4600.00	10.20	10.20	89.46	0.47	50.00	50.00	29.61	2.45	
4700.00	4700.00	4700.00	4700.00	10.42	10.42	89.46	0.47	50.00	50.00	29.16	2.40	
4800.00	4800.00	4800.00	4800.00	10.64	10.64	89.46	0.47	50.00	50.00	28.71	2.35	
4900.00	4900.00	4900.00	4900.00	10.87	10.87	89.46	0.47	50.00	50.00	28.26	2.30	
5000.00	5000.00	5000.00	5000.00	11.09	11.09	89.46	0.47	50.00	50.00	27.81	2.25	
5100.00	5100.00	5100.00	5100.00	11.32	11.32	89.46	0.47	50.00	50.00	27.36	2.21	
5200.00	5200.00	5200.00	5200.00	11.54	11.54	89.46	0.47	50.00	50.00	26.91	2.17	
5300.00	5300.00	5300.00	5300.00	11.77	11.77	89.46	0.47	50.00	50.00	26.46	2.12	
5400.00	5400.00	5400.00	5400.00	11.99	11.99	89.46	0.47	50.00	50.00	26.02	2.08	
5500.00	5500.00	5500.00	5500.00	12.22	12.22	89.46	0.47	50.00	50.00	25.57	2.05	
5600.00	5600.00	5600.00	5600.00	12.44	12.44	89.46	0.47	50.00	50.00	25.12	2.01	
5700.00	5700.00	5697.85	5697.80	12.67	12.64	91.09	-0.99	52.04	52.09	26.79	2.06	
5800.00	5800.00	5795.18	5794.84	12.89	12.82	95.26	-5.34	58.09	58.57	32.90	2.28	
5900.00	5900.00	5891.51	5890.38	13.12	13.00	100.40	-12.48	68.03	69.84	43.83	2.69	
6000.00	6000.00	5988.61	5986.08	13.34	13.19	105.17	-22.06	81.36	85.44	59.07	3.24	
6100.00	6100.00	6087.09	6083.07	13.57	13.39	108.59	-32.03	95.25	101.91	75.14	3.81	
6200.00	6200.00	6185.57	6180.05	13.79	13.60	111.05	-42.01	109.13	118.63	91.46	4.37	
6300.00	6300.00	6284.05	6277.04	14.02	13.82	112.91	-51.98	123.02	135.51	107.94	4.91	
6400.00	6400.00	6382.54	6374.02	14.24	14.04	114.35	-61.96	136.91	152.50	124.52	5.45	
6500.00	6500.00	6481.02	6471.01	14.47	14.28	115.50	-71.93	150.80	169.57	141.17	5.97	
6600.00	6600.00	6579.50	6568.00	14.69	14.51	116.44	-81.91	164.68	186.69	157.87	6.48	
6700.00	6700.00	6677.98	6664.98	14.92	14.76	117.23	-91.88	178.57	203.85	174.62	6.97	
6800.00	6800.00	6776.46	6761.97	15.14	15.01	117.89	-101.86	192.46	221.05	191.39	7.45	
6900.00	6900.00	6874.94	6858.95	15.37	15.27	118.46	-111.83	206.34	238.26	208.19	7.92	
7000.00	7000.00	6973.42	6955.94	15.59	15.53	118.95	-121.81	220.23	255.50	225.00	8.38	
7100.00	7100.00	7071.91	7052.92	15.81	15.80	119.37	-131.78	234.12	272.75	241.83	8.82	
7200.00	7200.00	7170.39	7149.91	16.04	16.07	119.75	-141.76	248.01	290.02	258.67	9.25	
7300.00	7300.00	7268.87	7246.89	16.26	16.34	120.09	-151.73	261.89	307.30	275.52	9.67	
7400.00	7400.00	7367.35	7343.88	16.49	16.62	120.39	-161.71	275.78	324.58	292.37	10.08	
7500.00	7500.00	7465.83	7440.87	16.71	16.91	120.65	-171.68	289.67	341.87	309.24	10.47	
7600.00	7600.00	7564.31	7537.85	16.94	17.20	120.90	-181.66	303.55	359.17	326.10	10.86	
7700.00	7700.00	7662.79	7634.84	17.16	17.49	121.12	-191.63	317.44	376.48	342.98	11.24	
7800.00	7800.00	7761.27	7731.82	17.39	17.79	121.32	-201.61	331.33	393.79	359.85	11.60	
7900.00	7900.00	7859.76	7828.81	17.61	18.09	121.50	-211.58	345.22	411.11	376.73	11.96	
8000.00	8000.00	7958.24	7925.79	17.84	18.39	121.67	-221.56	359.10	428.43	393.61	12.31	
8100.00	8100.00	8056.72	8022.78	18.06	18.70	121.83	-231.53	372.99	445.75	410.50	12.65	
8200.00	8200.00	8155.20	8119.77	18.29	19.01	121.97	-241.51	386.88	463.07	427.38	12.98	
8300.00	8300.00	8253.68	8216.75	18.51	19.32	122.11	-251.48	400.76	480.40	444.27	13.30	
8400.00	8400.00	8352.16	8313.74	18.74	19.63	122.23	-261.46	414.65	497.73	461.16	13.61	
8500.00	8500.00	8450.64	8410.72	18.96	19.95	122.35	-271.43	428.54	515.06	478.05	13.92	
8600.00	8600.00	8549.12	8507.71	19.19	20.27	122.46	-281.41	442.42	532.40	494.94	14.21	

Company:	Devon Energy	**Date:** 6/20/2013	**Time:** 16:20:35	**Page:**	3
Field:	Lea County, New Mexico (NAD 83)				
Reference Site:	Paduca Breaks 9 Federal 1H, 2H Pad	**Co-ordinate(NE) Reference:**	Well: Paduca Breaks 9 Federal 1H		
Reference Well:	Paduca Breaks 9 Federal 1H	**Vertical (TVD) Reference:**	SITE 3494.0		
Reference Wellpath:				**Db:**	Sybase

Site: Paduca Breaks 9 Federal 1H, 2H Pad
Well: Paduca Breaks 9 Federal 2H
Wellpath: 1 V1 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
8700.00	8700.00	8647.61	8604.69	19.41	20.59	122.56	-291.38	456.31	549.73	511.83	14.51	
8800.00	8800.00	8746.09	8701.68	19.64	20.92	122.66	-301.36	470.20	567.07	528.73	14.79	
8900.00	8900.00	8844.57	8798.66	19.86	21.24	122.75	-311.33	484.09	584.41	545.62	15.07	
9000.00	9000.00	8943.05	8895.65	20.09	21.57	122.83	-321.31	497.97	601.75	562.51	15.34	
9100.00	9100.00	9041.53	8992.64	20.31	21.90	122.91	-331.28	511.86	619.09	579.41	15.60	
9200.00	9200.00	9140.01	9089.62	20.53	22.23	122.99	-341.26	525.75	636.44	596.30	15.86	
9300.00	9300.00	9238.49	9186.61	20.76	22.57	123.06	-351.23	539.63	653.78	613.20	16.11	
9400.00	9400.00	9336.97	9283.59	20.98	22.90	123.13	-361.21	553.52	671.12	630.09	16.36	
9500.00	9500.00	9435.46	9380.58	21.21	23.24	123.19	-371.18	567.41	688.47	646.99	16.60	
9600.00	9600.00	9533.94	9477.56	21.43	23.58	123.25	-381.16	581.30	705.82	663.89	16.83	
9700.00	9700.00	9632.42	9574.55	21.66	23.92	123.31	-391.13	595.18	723.16	680.78	17.06	
9800.00	9800.00	9730.90	9671.54	21.88	24.26	123.37	-401.11	609.07	740.51	697.68	17.29	
9900.00	9900.00	9829.38	9768.52	22.11	24.60	123.42	-411.08	622.96	757.86	714.57	17.51	
9950.10	9950.10	9878.72	9817.11	22.22	24.77	123.45	-416.08	629.91	766.55	723.04	17.62	
9975.00	9974.99	9903.18	9841.20	22.27	24.86	242.32	-418.56	633.36	771.17	727.56	17.68	
10000.00	9999.91	9927.58	9865.22	22.32	24.94	242.78	-421.03	636.80	776.40	732.70	17.76	
10025.00	10024.69	9951.74	9889.02	22.36	25.03	243.22	-423.47	640.21	782.23	738.44	17.86	
10050.00	10049.27	9975.60	9912.52	22.41	25.11	243.64	-425.89	643.58	788.64	744.77	17.98	
10075.00	10073.58	9999.09	9935.66	22.46	25.20	244.07	-428.27	646.89	795.63	751.69	18.11	
10100.00	10097.55	10022.16	9958.37	22.50	25.28	244.50	-430.61	650.14	803.21	759.20	18.25	
10125.00	10121.11	10044.73	9980.60	22.55	25.36	244.93	-432.89	653.32	811.38	767.30	18.41	
10150.00	10144.21	10066.76	10002.29	22.60	25.43	245.39	-435.12	656.43	820.14	775.99	18.58	
10175.00	10166.78	10088.16	10023.37	22.65	25.51	245.88	-437.29	659.45	829.49	785.27	18.76	
10200.00	10188.75	10108.89	10043.79	22.71	25.58	246.41	-439.39	662.37	839.44	795.15	18.95	
10225.00	10210.06	10120.36	10055.07	22.76	25.62	247.31	-440.66	663.99	850.08	805.74	19.17	
10250.00	10230.67	10130.84	10065.35	22.82	25.64	248.35	-442.05	665.46	861.53	817.12	19.40	
10275.00	10250.50	10140.98	10075.27	22.89	25.66	249.52	-443.62	666.88	873.73	829.25	19.64	
10300.00	10269.51	10150.75	10084.79	22.96	25.68	250.81	-445.33	668.24	886.66	842.08	19.89	
10325.00	10287.65	10160.15	10093.92	23.04	25.69	252.24	-447.16	669.55	900.26	855.57	20.14	
10350.00	10304.86	10169.15	10102.62	23.13	25.70	253.81	-449.08	670.80	914.51	869.67	20.40	
10375.00	10321.09	10177.73	10110.88	23.22	25.71	255.52	-451.06	671.98	929.35	884.36	20.65	
10400.00	10336.32	10185.88	10118.70	23.32	25.71	257.38	-453.09	673.10	944.75	899.56	20.91	
10425.00	10350.48	10193.57	10126.04	23.44	25.72	259.37	-455.12	674.15	960.65	915.26	21.16	
10450.00	10363.54	10200.79	10132.91	23.56	25.72	261.52	-457.14	675.13	977.01	931.40	21.42	
10475.00	10375.48	10207.53	10139.28	23.70	25.72	263.80	-459.12	676.04	993.79	947.94	21.68	
10500.00	10386.24	10213.75	10145.15	23.85	25.72	266.23	-461.03	676.88	1010.94	964.85	21.94	
10525.00	10395.81	10219.45	10150.49	24.01	25.72	268.78	-462.84	677.65	1028.41	982.08	22.20	
10550.00	10404.16	10224.60	10155.31	24.19	25.72	271.45	-464.54	678.34	1046.16	999.61	22.47	
10575.00	10411.26	10229.19	10159.57	24.38	25.71	274.23	-466.09	678.95	1064.13	1017.38	22.76	
10600.00	10417.10	10233.17	10163.28	24.58	25.71	277.10	-467.47	679.48	1082.30	1035.35	23.06	
10617.17	10420.37	10235.56	10165.48	24.73	25.71	279.12	-468.31	679.80	1094.86	1047.80	23.27	
10625.00	10421.72	10236.59	10166.44	24.79	25.71	279.14	-468.68	679.93	1100.56	1053.43	23.35	
10650.00	10425.94	10240.11	10169.69	24.98	25.71	279.22	-469.95	680.40	1118.36	1070.98	23.60	
10675.00	10430.02	10243.98	10173.25	25.17	25.71	279.32	-471.38	680.91	1135.49	1087.86	23.84	
10700.00	10433.96	10248.21	10177.13	25.35	25.70	279.41	-472.97	681.46	1151.93	1104.05	24.06	
10725.00	10437.74	10252.84	10181.36	25.52	25.70	279.49	-474.75	682.07	1167.66	1119.54	24.27	
10750.00	10441.35	10257.89	10185.96	25.69	25.70	279.57	-476.75	682.73	1182.66	1134.30	24.46	
10775.00	10444.78	10263.40	10190.94	25.83	25.69	279.63	-478.97	683.44	1196.91	1148.32	24.63	
10800.00	10448.03	10269.40	10196.34	25.97	25.69	279.67	-481.46	684.22	1210.39	1161.59	24.80	
10825.00	10451.08	10275.93	10202.19	26.08	25.68	279.68	-484.25	685.05	1223.09	1174.08	24.96	
10850.00	10453.93	10283.03	10208.50	26.18	25.68	279.67	-487.38	685.96	1234.99	1185.78	25.10	

Company:	Devon Energy	**Date:** 6/20/2013 **Time:** 16:20:35	**Page:** 4
Field:	Lea County, New Mexico (NAD 83)		
Reference Site:	Paduca Breaks 9 Federal 1H, 2H Pad	**Co-ordinate(NE) Reference:**	Well: Paduca Breaks 9 Federal 1H
Reference Well:	Paduca Breaks 9 Federal 1H	**Vertical (TVD) Reference:**	SITE 3494.0
Reference Wellpath:			**Db:** Sybase

Site: Paduca Breaks 9 Federal 1H, 2H Pad
Well: Paduca Breaks 9 Federal 2H
Wellpath: 1 V1 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Offset Location TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Separation Distance ft	Separation Factor	Warning
10875.00	10456.56	10290.76	10215.32	26.26	25.67	279.63	-490.89	686.93	1246.06	1196.67	25.23	
10900.00	10458.98	10299.17	10222.67	26.32	25.66	279.55	-494.83	687.99	1256.29	1206.74	25.36	
10925.00	10461.17	10308.33	10230.60	26.36	25.66	279.43	-499.28	689.12	1265.66	1215.96	25.47	
10950.00	10463.13	10318.30	10239.14	26.37	25.65	279.27	-504.29	690.34	1274.14	1224.31	25.57	
10975.00	10464.85	10329.17	10248.31	26.37	25.65	279.06	-509.95	691.66	1281.73	1231.77	25.65	
11000.00	10466.33	10341.00	10258.16	26.35	25.64	278.81	-516.36	693.07	1288.40	1238.33	25.73	
11025.00	10467.56	10353.91	10268.72	26.30	25.64	278.50	-523.62	694.58	1294.13	1243.95	25.79	
11050.00	10468.55	10367.97	10280.00	26.24	25.64	278.13	-531.86	696.19	1298.89	1248.62	25.84	
11075.00	10469.28	10383.30	10292.01	26.16	25.65	277.71	-541.23	697.91	1302.66	1252.31	25.87	
11100.00	10469.76	10400.00	10304.76	26.07	25.66	277.22	-551.87	699.74	1305.42	1254.99	25.88	
11125.00	10469.98	10418.18	10318.20	25.96	25.69	276.67	-563.95	701.66	1307.13	1256.62	25.88	
11134.29	10470.00	10425.34	10323.37	25.91	25.70	276.44	-568.85	702.40	1307.50	1256.96	25.87	
11200.00	10470.00	10483.00	10362.22	26.36	25.85	274.72	-611.04	707.97	1310.20	1258.66	25.42	
11300.00	10470.00	10598.58	10423.60	27.09	26.38	272.02	-708.25	716.76	1315.50	1262.20	24.68	
11400.00	10470.00	10747.94	10465.76	27.92	27.46	270.18	-850.77	722.79	1319.24	1263.86	23.82	
11500.00	10470.00	10872.77	10470.00	28.85	28.68	270.00	-975.41	723.40	1319.61	1262.11	22.95	
11600.00	10470.00	10972.77	10470.00	29.86	29.82	270.00	-1075.41	723.40	1319.61	1259.96	22.12	
11700.00	10470.00	11072.77	10470.00	30.94	31.02	270.00	-1175.41	723.40	1319.61	1257.68	21.31	
11800.00	10470.00	11172.77	10470.00	32.09	32.29	270.00	-1275.41	723.40	1319.61	1255.27	20.51	
11900.00	10470.00	11272.77	10470.00	33.30	33.60	270.00	-1375.41	723.40	1319.61	1252.75	19.74	
12000.00	10470.00	11372.77	10470.00	34.57	34.96	270.00	-1475.41	723.40	1319.61	1250.12	18.99	
12100.00	10470.00	11472.77	10470.00	35.88	36.36	270.00	-1575.41	723.40	1319.61	1247.41	18.28	
12200.00	10470.00	11572.77	10470.00	37.24	37.80	270.00	-1675.41	723.40	1319.61	1244.62	17.60	
12300.00	10470.00	11672.77	10470.00	38.63	39.27	270.00	-1775.41	723.40	1319.61	1241.76	16.95	
12400.00	10470.00	11772.77	10470.00	40.06	40.76	270.00	-1875.41	723.40	1319.61	1238.83	16.33	
12500.00	10470.00	11872.77	10470.00	41.52	42.29	270.00	-1975.41	723.40	1319.62	1235.85	15.75	
12600.00	10470.00	11972.77	10470.00	43.01	43.83	270.00	-2075.41	723.40	1319.62	1232.81	15.20	
12700.00	10470.00	12072.77	10470.00	44.52	45.40	270.00	-2175.41	723.40	1319.62	1229.73	14.68	
12800.00	10470.00	12172.77	10470.00	46.06	46.99	270.00	-2275.41	723.40	1319.62	1226.61	14.19	
12900.00	10470.00	12272.77	10470.00	47.62	48.59	270.00	-2375.41	723.40	1319.62	1223.45	13.72	
13000.00	10470.00	12372.77	10470.00	49.19	50.21	270.00	-2475.41	723.40	1319.62	1220.26	13.28	
13100.00	10470.00	12472.77	10470.00	50.78	51.84	270.00	-2575.41	723.40	1319.62	1217.04	12.86	
13200.00	10470.00	12572.77	10470.00	52.39	53.48	270.00	-2675.41	723.40	1319.62	1213.79	12.47	
13300.00	10470.00	12672.77	10470.00	54.01	55.14	270.00	-2775.41	723.40	1319.62	1210.51	12.09	
13400.00	10470.00	12772.77	10470.00	55.64	56.80	270.00	-2875.41	723.40	1319.62	1207.21	11.74	
13500.00	10470.00	12872.77	10470.00	57.29	58.48	270.00	-2975.41	723.40	1319.62	1203.89	11.40	
13600.00	10470.00	12972.77	10470.00	58.95	60.16	270.00	-3075.41	723.40	1319.63	1200.55	11.08	
13700.00	10470.00	13072.77	10470.00	60.61	61.85	270.00	-3175.41	723.40	1319.63	1197.20	10.78	
13800.00	10470.00	13172.77	10470.00	62.29	63.55	270.00	-3275.41	723.40	1319.63	1193.82	10.49	
13900.00	10470.00	13272.77	10470.00	63.97	65.26	270.00	-3375.41	723.40	1319.63	1190.44	10.21	
14000.00	10470.00	13372.77	10470.00	65.66	66.97	270.00	-3475.41	723.40	1319.63	1187.03	9.95	
14100.00	10470.00	13472.77	10470.00	67.36	68.69	270.00	-3575.41	723.40	1319.63	1183.62	9.70	
14200.00	10470.00	13572.77	10470.00	69.06	70.41	270.00	-3675.41	723.40	1319.63	1180.19	9.46	
14300.00	10470.00	13672.77	10470.00	70.77	72.14	270.00	-3775.41	723.40	1319.63	1176.75	9.24	
14400.00	10470.00	13772.77	10470.00	72.48	73.87	270.00	-3875.41	723.40	1319.63	1173.31	9.02	
14500.00	10470.00	13872.77	10470.00	74.20	75.61	270.00	-3975.41	723.40	1319.63	1169.85	8.81	
14600.00	10470.00	13972.77	10470.00	75.93	77.35	270.00	-4075.41	723.40	1319.63	1166.38	8.61	
14700.00	10470.00	14072.77	10470.00	77.66	79.10	270.00	-4175.41	723.40	1319.63	1162.91	8.42	
14800.00	10470.00	14172.77	10470.00	79.39	80.84	270.00	-4275.41	723.40	1319.64	1159.42	8.24	
14900.00	10470.00	14272.77	10470.00	81.13	82.60	270.00	-4375.41	723.40	1319.64	1155.93	8.06	
15000.00	10470.00	14372.77	10470.00	82.88	84.35	270.00	-4475.41	723.40	1319.64	1152.44	7.89	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 6/20/2013 **Time:** 16:20:35	**Page:** 5
Field:	Lea County, New Mexico (NAD 83)		
Reference Site:	Paduca Breaks 9 Federal 1H, 2H Pad	**Co-ordinate(NE) Reference:**	Well: Paduca Breaks 9 Federal 1H
Reference Well:	Paduca Breaks 9 Federal 1H	**Vertical (TVD) Reference:**	SITE 3494.0
Reference Wellpath:			**Db:** Sybase

Site: Paduca Breaks 9 Federal 1H, 2H Pad
Well: Paduca Breaks 9 Federal 2H
Wellpath: 1 V1 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
15100.00	10470.00	14472.77	10470.00	84.62	86.11	270.00	-4575.41	723.40	1319.64	1148.93	7.73	
15200.00	10470.00	14572.77	10470.00	86.37	87.87	270.00	-4675.41	723.40	1319.64	1145.43	7.57	
15284.31	10470.00	14641.91	10470.00	87.85	89.09	270.00	-4744.55	723.40	1319.73	1142.82	7.46	

Weatherford

Weatherford Drilling Services

GeoDec v5.03

Report Date:	June 20, 2013
Job Number:	
Customer:	Devon Energy
Well Name:	Paduca Breaks 9 Federal 1H
API Number:	
Rig Name:	
Location:	Lea County, NM
Block:	
Engineer:	RWJ

US State Plane 1983
System: New Mexico Eastern Zone
Projection: Transverse Mercator/Gauss Kruger
Datum: North American Datum 1983
Ellipsoid: GRS 1980
North/South 419535.530 USFT
East/West 744827.840 USFT
Grid Convergence: .35°
Total Correction: +7.11°

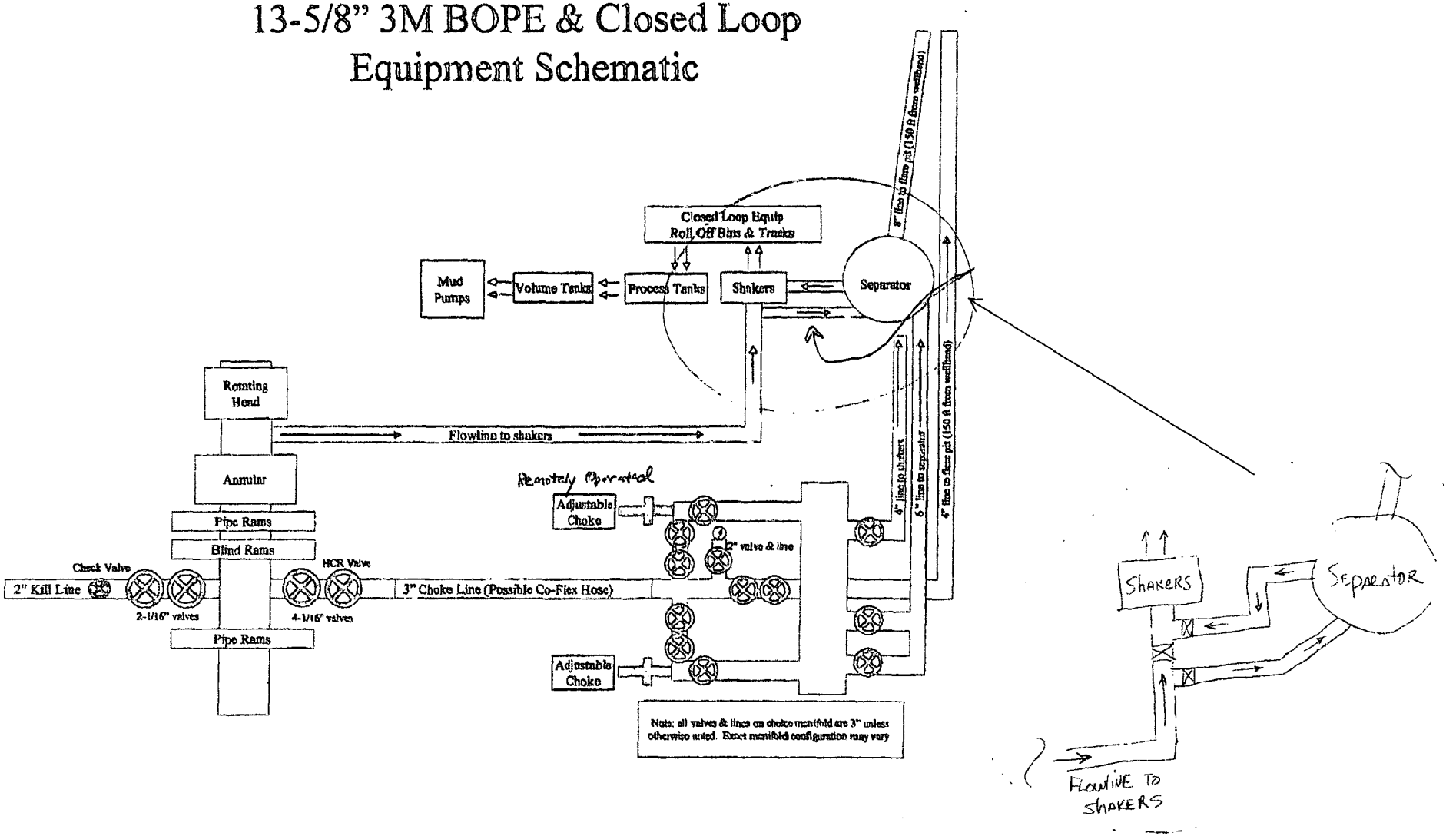
Geodetic Latitude / Longitude
System: Latitude / Longitude
Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Latitude 32.1516734 DEG
Longitude -103.6758092 DEG

Geodetic Location WGS84		Elevation =	0.0 Meters
Latitude =	32.15167° N	32° 9 min 6.024 sec	
Longitude =	103.67581° W	103° 40 min 32.913 sec	

Magnetic Declination =	7.46°	[True North Offset]	
Local Gravity =	.9988 g	CheckSum =	6449
Local Field Strength =	48350 nT	Magnetic Vector X =	23946 nT
Magnetic Dip =	60.03°	Magnetic Vector Y =	3136 nT
Magnetic Model =	bggm2013	Magnetic Vector Z =	41887 nT
Spud Date =	Sep 10, 2013	Magnetic Vector H =	24151 nT

Signed:_____ Date:_____

13-5/8" 3M BOPE & Closed Loop Equipment Schematic



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP
Paduca Breaks 9 Fed 1H

Surface Location: 200' FNL & 1350' FEL, Unit B, Sec 9, T25S R32E, Lea, NM
Bottom Hole Location: 330' FSL & 1980' FEL, Unit O, Sec 1, 9, T25S R32E, 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.

Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST CERTIFICATE

Customer:	Customer P.O. Number:
CACTUS	RE-CERT M5322&M1075

HOSE SPECIFICATIONS

Type:	Hose Length:
Rotary/Vibrator Hose CHOKE HC / API 7K	35 FEET

I.D.	O.D.
INCHES	INCHES

WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
5,000 PSI	10,000 PSI	N/A PSI

COUPLINGS

Part Number	Stem Lot Number	Ferrule Lot Number

Type of Coupling:	Die Size:
SWAGE-IT	

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
12 3/4 MIN.	N/A PSI

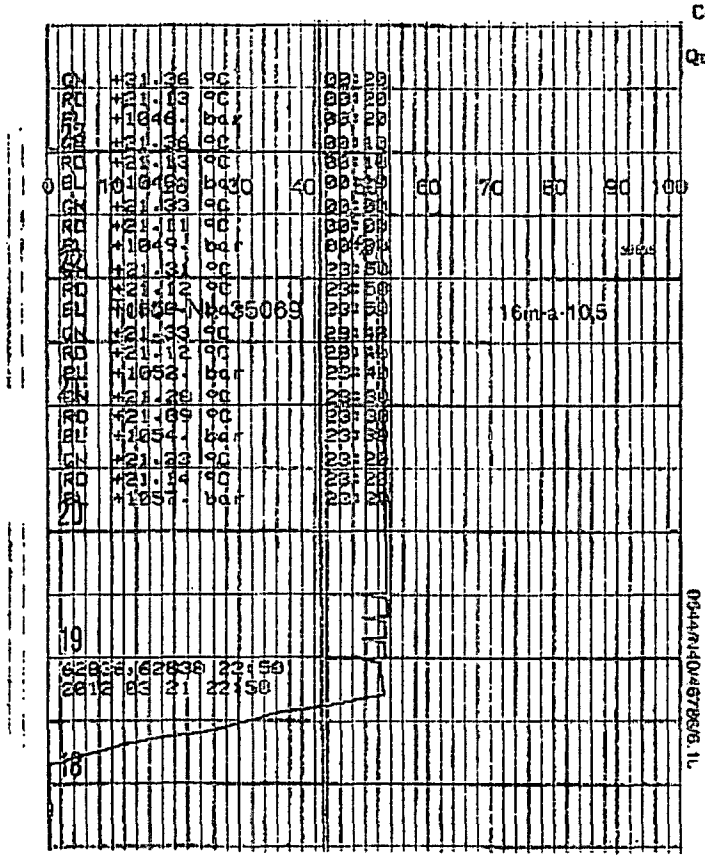
Hose Assembly Serial Number:	Hose Serial Number:
194103-2	

Comments:
ASSET# M5322

Date:	Tested:	Approved?
3/6/2013		

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE *No: 502, 504*

ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(1)



Continental CONTITECH

Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly it is good practice to use lifting & safety equipment but not mandatory

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

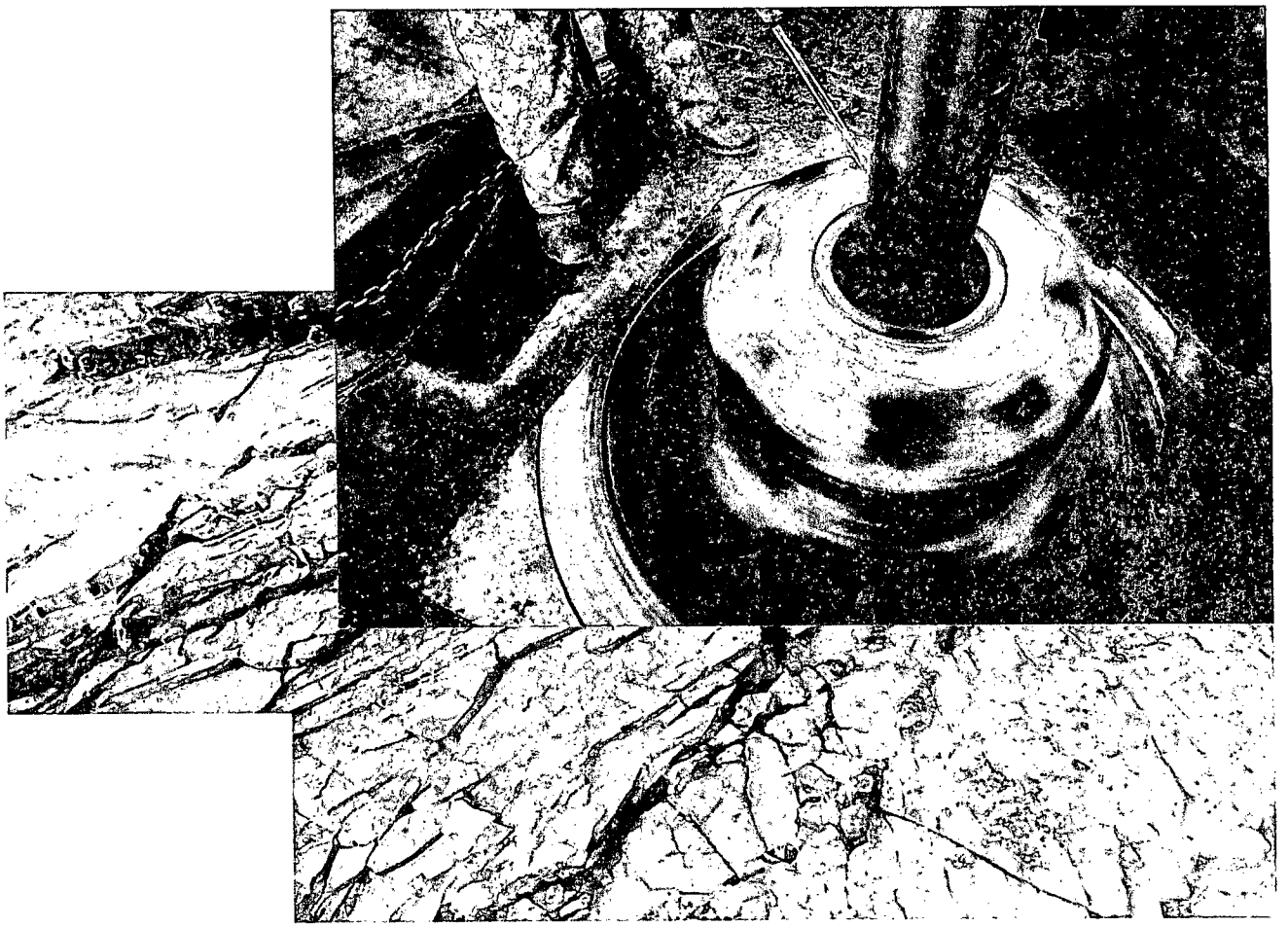
Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com

devon

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.

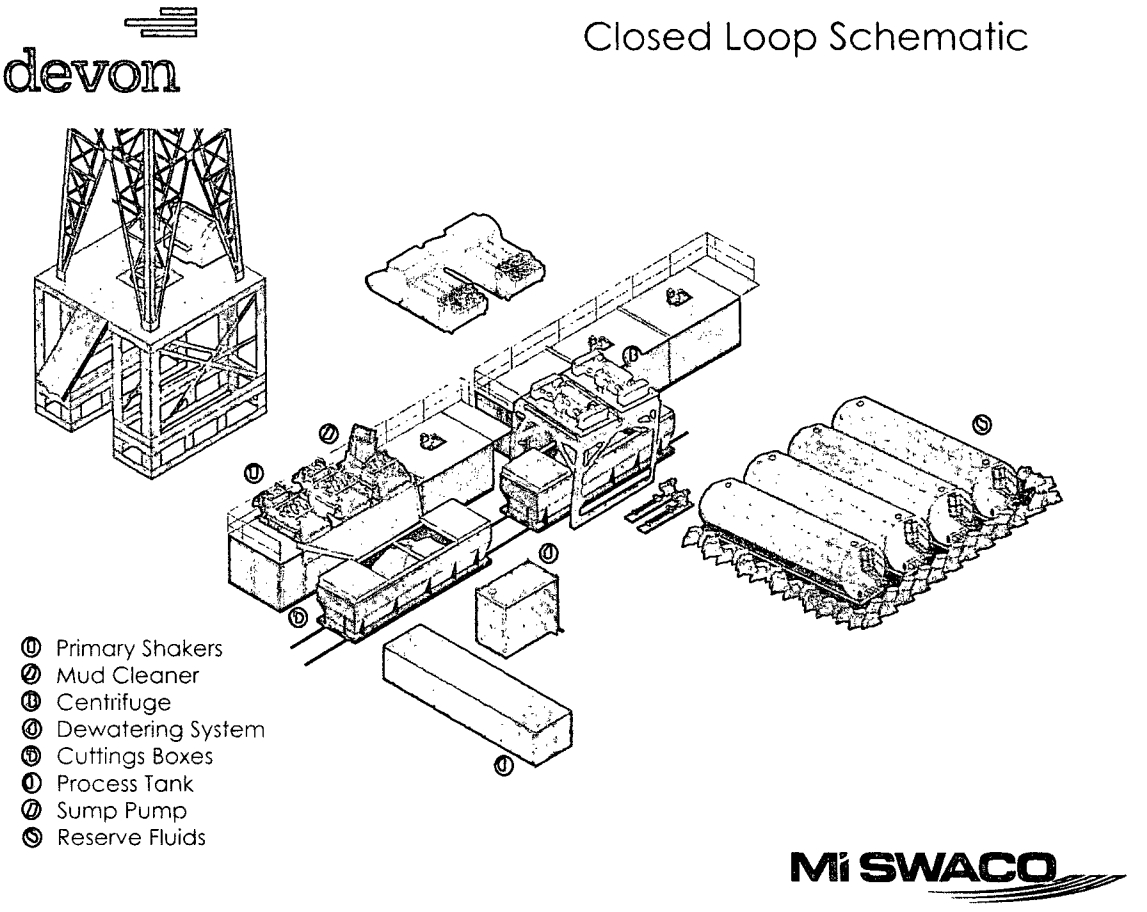
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

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.



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.