

Form 3160-3
(March 2012)

APR 11 2013

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMLC-061842	
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 W. Sheridan Ave. Oklahoma City, OK 73102		8. Lease Name and Well No. BAE 14 FED COM 2H (39816)	
3b. Phone No. (include area code) 405-552-7848		9. API Well No. 70-025-41101	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 610 FNL & 200 FEL Unit A PP: 610 FNL & 458 FEL At proposed prod. zone 610 FNL & 330 FWL Unit D		10. Field and Pool, or Exploratory Maljamar Yeso, WEST (44500)	
14. Distance in miles and direction from nearest town or post office* Approximately 5 miles southeast of Maljamar, NM		11. Sec., T. R. M. or Blk. and Survey or Area 14-17S-32E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'		12. County or Parish Lea County	
16. No. of acres in lease 480 acres		13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map		17. Spacing Unit dedicated to this well 160 acres	
19. Proposed Depth TVD: 6,740' MD: 11,401'		20. BLM/BIA Bond No. on file CO-1104 & NMB-000801	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4,116.9' GL		22. Approximate date work will start*	
		23. Estimated duration 45 days	

24. Attachments TO BE PAD DRILLED w/BAE 14 FED COM 1H

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 (Signature)	Name (Printed/Typed) David H. Cook	Date 2/19/2013
Title Regulatory Specialist		
Approved by (Signature) James A. Amos	Name (Printed/Typed) James A. Amos	Date APR - 5 2013
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)

Roswell Controlled Water Basin

KZ
04/02/13

CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

APR 15 2013

DRILLING PROGRAM

Devon Energy Production Company, LP

BAE 14 Fed Com 2H

Surface Location: 610 FNL & 200 FEL, Unit A, Sec 14 T17S R32E, Lea, NM

Bottom Hole Location: 610 FNL & 330 FWL, Unit D, Sec 14 T17S 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	70'	
b. Rustler	1,030'	
c. Top of Salt	1,275'	
d. Base of Salt	2,410'	
e. Yates	2,420'	
f. Seven Rivers	2,760'	
g. Queen	3,360'	Oil
h. Grayburg	3,800'	Oil
i. San Andres	4,010'	Oil
j. Glorieta	5,610'	Oil
k. Paddock	5,710'	Oil
Total Depth	11,401' MD	6,740' TVD

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

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17-1/2"	0 - 1,100	13-3/8"	0 - 1,100	48#	STC	H-40
12-1/4"	1,100 - 2,550	9-5/8"	0 - 2,550	36#	LTC	J-55
8-3/4"	2,550 - 6,100	5-1/2"	0 - 6,100	17#	LTC	HCP-110
8-3/4"	6,100 - 11,401	5-1/2"	6,100 - 11,401	17#	BTC	HCP-110

MAXIMUM LATERAL TVD 6,740'

DRILLING PROGRAM

Devon Energy Production Company, LP

BAE 14 Fed Com 2H

Surface Location: 610 FNL & 200 FEL, Unit A, Sec 14 T17S R32E, Lea, NM

Bottom Hole Location: 610 FNL & 330 FWL, Unit D, Sec 14 T17S 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	70'	
b. Top of Salt	1,275'	
c. Base of Salt	2,410'	
d. Yates	2,420'	
e. Seven Rivers	2,760'	
f. Queen	3,360'	Oil
g. Grayburg	3,800'	Oil
h. San Andres	4,010'	Oil
i. Glorieta	5,610'	Oil
j. Paddock	5,710'	Oil

4/1/13
2D

Total Depth 11,401' MD 6,740' TVD

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

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17-1/2"	0 - 1,100	13-3/8"	0 - 1,100	48#	STC	H-40
12-1/4"	1,100 - 2,550	9-5/8"	0 - 2,550	36#	LTC	J-55
8-3/4"	2,550 - 6,100	5-1/2"	0 - 6,100	17#	LTC	HCP-110
8-3/4"	6,100 - 11,401	5-1/2"	6,100 - 11,401	17#	BTC	HCP-110

MAXIMUM LATERAL TVD 6,740'

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design</u> <u>Factor</u>	<u>Burst Design</u> <u>Factor</u>	<u>Tension Design</u> <u>Factor</u>
13 3/8"	1.65	3.70	6.71
9 5/8"	1.55	2.71	5.03
5 1/2"	2.37	3.37	2.30
5 1/2"	2.61	3.73	6.30

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

13 3/8" Surface Lead: 675 sx Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water, 13.5 ppg, Yield: 1.75 cf/sk.

TOC @ surface

Tail: 310 sx 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.

9-5/8" Intermediate Lead: 400 sx (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: 360 sx 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 Lead: 400 sx (65:35) Class H Cement:Poz (Fly Ash) + 6% bwoc Bentonite + 0.2% bwoc HR-601 + 74.1% Fresh Water, 12.5 ppg, Yield: 1.95 cf/sk.

Tail: 1530 sx (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 @ 2050 ft

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

4. Pressure Control Equipment

The BOP system used to drill the intermediate hole will consist of a 13-5/8" Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2, a 3M system will be installed and tested prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 a 3M system will be installed prior to drilling out the intermediate casing shoe.

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.

If H&P Rig 416 is utilized to drill this well, a variance to Onshore Oil & Gas Order No. 2 is requested. Co-flex hose will be used between the BOPE & the choke manifold. The hose will be kept as straight as possible with minimal turns. Below is a list of current H&P rigs w/ their Co-flex hose specifications:

- H&P Rig 416; Serial No. 53622, 35', 3" ID, 10,000 psi W.P., -20 degrees C (-4 degrees F) to +100 degrees C (212 degrees F) operating temperature, 1.7 meters (5.6 feet) minimum operational bending radius.

If any other rig is used to drill this well, no co-flex hose will be needed.

5. Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0 - 1,100	8.4-9.0	30-34	N/C	FW
1,100 - 2,550	9.8-10.0	28-32	N/C	Brine
2,550 - 11,401	8.6-9.0	28-32	N/C-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.

6. **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.
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 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.
8. **Potential Hazards:** *see COA*
- 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 2,300 psi and Estimated BHT 110°. No H₂S is anticipated to be encountered.
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.



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Devon Energy, Inc.

Lea County (NAD83)

BAE 14 Fed Com

#2H

OH

Plan: Plan #1

Pathfinder X&Y Report

07 January, 2013

The Devon logo, consisting of the word "devon" in a lowercase, serif font, with a stylized graphic of three horizontal bars of increasing length to the right of the text.

devon

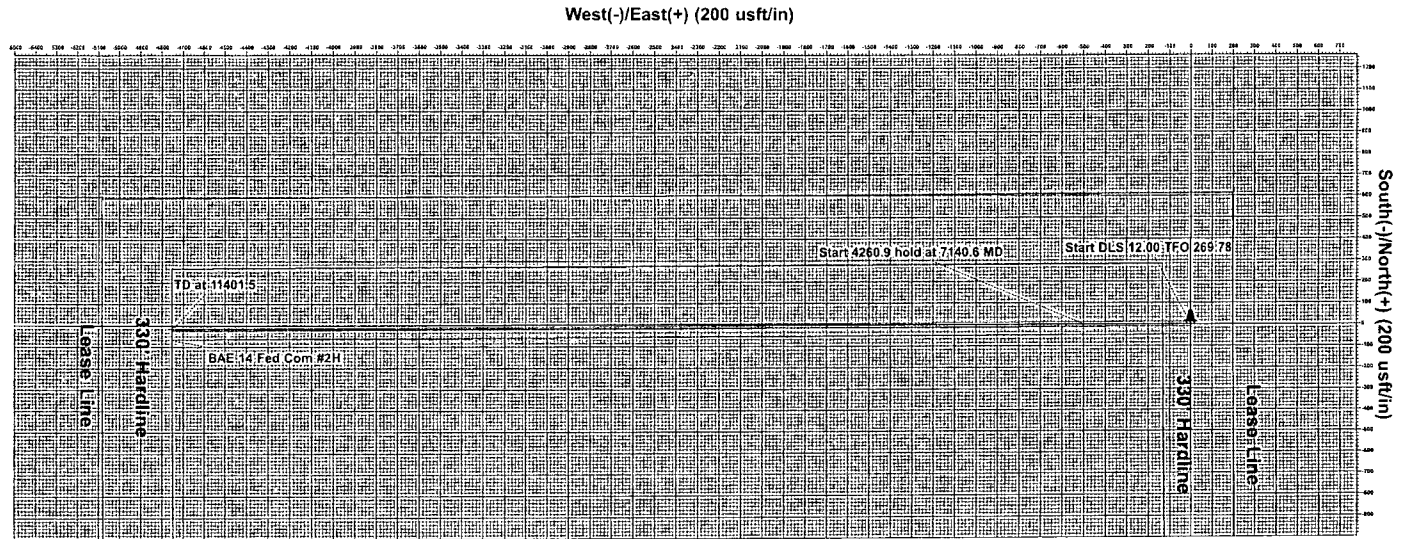
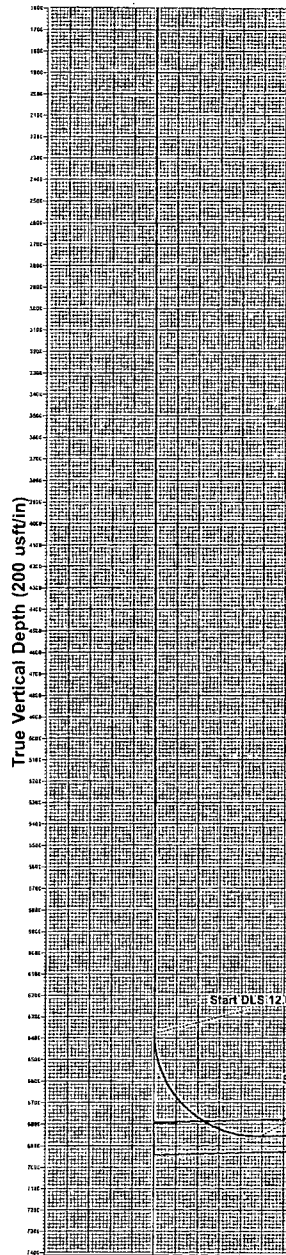


PROJECT DETAILS: Lea County (NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

Project: Lea County (NAD83)
Site: BAE 14 Fed Com
Well: #2H
Wellbore: OH
Plan: Plan #1 (#2H/OH)



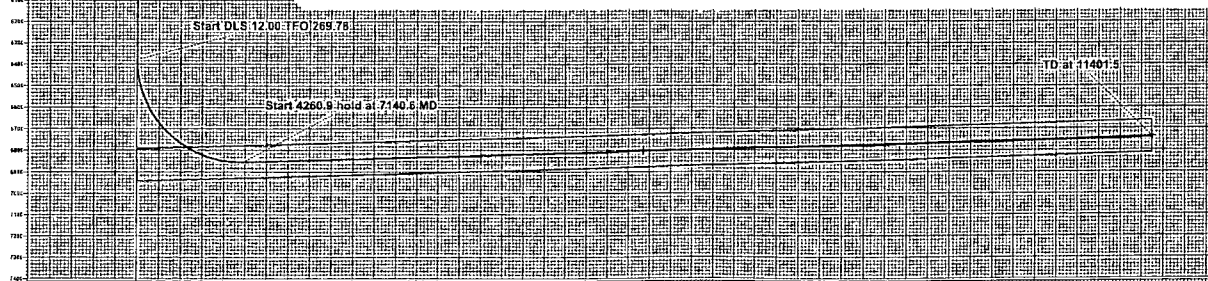
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WELL DETAILS: #2H						
Ground Elevation: 4116.9						
RKB Elevation: KB = 18' @ 4134.9usft (Original Well Elev)						
Rig Name: Original Well Elev						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	669905.760	726900.340	32.840138	-103.729151	

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	6377.7	0.00	0.00	6377.7	0.0	0.0	0.00	0.00	0.0	
3	7140.6	91.55	269.78	6855.0	-1.9	-490.3	12.00	269.78	490.4	
4	11401.5	91.55	269.78	6740.0	-18.2	-4749.6	0.00	0.00	4749.7	BAE 14 Fed Com #2H PBHL

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
BAE 14 Fed Com #2H PBHL	6740.0	-18.2	-4749.6	669887.580	722150.710	Point
TGT Box	6804.1	-9.1	-2374.8	669896.641	724525.518	Rectangle (Sides: L4749.7 W20.0)



Azimuths to Grid North
True North: -0.33°
Magnetic North: 7.18°

Magnetic Field
Strength: 48808.0snT
Dip Angle: 60.69°
Date: 1/7/2013
Model: IGRF2010

Plan: Plan #1 (#2H/OH)	
Created By: Michael Trout	Date: 17:05, January 07 2013
Checked: _____	Date: _____

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Pathfinder

Pathfinder X&Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County (NAD83)	TVD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Site:	BAE 14 Fed Corn	MD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Project		Lea County (NAD83)	
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	BAE 14 Fed Com				
Site Position:		Northing:	669,855.780 usft	Latitude:	32.840000
From:	Map	Easting:	726,900.700 usft	Longitude:	-103.729151
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33 °

Well	#2H					
Well Position	+N/-S	0.0 usft	Northing:	669,905.760 usft	Latitude:	32.840138
	+E/-W	0.0 usft	Easting:	726,900.340 usft	Longitude:	-103.729151
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,116.9 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/7/2013	7.51	60.69	48,808

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	269.78

Survey Tool Program		Date	1/7/2013		
From	To				
(usft)	(usft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,401.5	Plan #1 (OH)	Pathfinder	Pathfinder MWD	



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Pathfinder Pathfinder X&Y Report



Company: Devon Energy, Inc.
Project: Lea County (NAD83)
Site: BAE 14 Fed Com
Well: #2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = 18' @ 4134.9usft (Original Well Elev)
MD Reference: KB = 18' @ 4134.9usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-4,134.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
100.0	0.00	0.00	100.0	-4,034.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
200.0	0.00	0.00	200.0	-3,934.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
300.0	0.00	0.00	300.0	-3,834.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
400.0	0.00	0.00	400.0	-3,734.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
500.0	0.00	0.00	500.0	-3,634.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
600.0	0.00	0.00	600.0	-3,534.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
700.0	0.00	0.00	700.0	-3,434.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
800.0	0.00	0.00	800.0	-3,334.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
900.0	0.00	0.00	900.0	-3,234.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,000.0	0.00	0.00	1,000.0	-3,134.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,100.0	0.00	0.00	1,100.0	-3,034.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,200.0	0.00	0.00	1,200.0	-2,934.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,300.0	0.00	0.00	1,300.0	-2,834.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,400.0	0.00	0.00	1,400.0	-2,734.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,500.0	0.00	0.00	1,500.0	-2,634.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,600.0	0.00	0.00	1,600.0	-2,534.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,700.0	0.00	0.00	1,700.0	-2,434.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,800.0	0.00	0.00	1,800.0	-2,334.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
1,900.0	0.00	0.00	1,900.0	-2,234.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
2,000.0	0.00	0.00	2,000.0	-2,134.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
2,100.0	0.00	0.00	2,100.0	-2,034.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
2,200.0	0.00	0.00	2,200.0	-1,934.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
2,300.0	0.00	0.00	2,300.0	-1,834.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
2,400.0	0.00	0.00	2,400.0	-1,734.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
2,500.0	0.00	0.00	2,500.0	-1,634.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34
2,600.0	0.00	0.00	2,600.0	-1,534.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34



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Pathfinder Pathfinder X&Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County (NAD83)	TVD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Site:	BAE 14 Fed Com	MD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,700.0	0.00	0.00	2,700.0	-1,434.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
2,800.0	0.00	0.00	2,800.0	-1,334.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
2,900.0	0.00	0.00	2,900.0	-1,234.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,000.0	0.00	0.00	3,000.0	-1,134.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,100.0	0.00	0.00	3,100.0	-1,034.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,200.0	0.00	0.00	3,200.0	-934.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,300.0	0.00	0.00	3,300.0	-834.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,400.0	0.00	0.00	3,400.0	-734.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,500.0	0.00	0.00	3,500.0	-634.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,600.0	0.00	0.00	3,600.0	-534.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,700.0	0.00	0.00	3,700.0	-434.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,800.0	0.00	0.00	3,800.0	-334.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
3,900.0	0.00	0.00	3,900.0	-234.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,000.0	0.00	0.00	4,000.0	-134.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,100.0	0.00	0.00	4,100.0	-34.9	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,200.0	0.00	0.00	4,200.0	65.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,300.0	0.00	0.00	4,300.0	165.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,400.0	0.00	0.00	4,400.0	265.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,500.0	0.00	0.00	4,500.0	365.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,600.0	0.00	0.00	4,600.0	465.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,700.0	0.00	0.00	4,700.0	565.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,800.0	0.00	0.00	4,800.0	665.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
4,900.0	0.00	0.00	4,900.0	765.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,000.0	0.00	0.00	5,000.0	865.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,100.0	0.00	0.00	5,100.0	965.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,200.0	0.00	0.00	5,200.0	1,065.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,300.0	0.00	0.00	5,300.0	1,165.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	



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Pathfinder Pathfinder X&Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County (NAD83)	TVD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Site:	BAE 14 Fed Com	MD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
5,400.0	0.00	0.00	5,400.0	1,265.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,500.0	0.00	0.00	5,500.0	1,365.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,600.0	0.00	0.00	5,600.0	1,465.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,700.0	0.00	0.00	5,700.0	1,565.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,800.0	0.00	0.00	5,800.0	1,665.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
5,900.0	0.00	0.00	5,900.0	1,765.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
6,000.0	0.00	0.00	6,000.0	1,865.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
6,100.0	0.00	0.00	6,100.0	1,965.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
6,200.0	0.00	0.00	6,200.0	2,065.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
6,300.0	0.00	0.00	6,300.0	2,165.1	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
6,377.7	0.00	0.00	6,377.7	2,242.8	0.0	0.0	0.0	0.00	669,905.76	726,900.34	
6,400.0	2.68	269.78	6,400.0	2,265.1	0.0	-0.5	0.5	12.00	669,905.76	726,899.82	
6,425.0	5.68	269.78	6,424.9	2,290.0	0.0	-2.3	2.3	12.00	669,905.75	726,898.00	
6,450.0	8.68	269.78	6,449.7	2,314.8	0.0	-5.5	5.5	12.00	669,905.74	726,894.88	
6,475.0	11.68	269.78	6,474.3	2,339.4	0.0	-9.9	9.9	12.00	669,905.72	726,890.46	
6,500.0	14.68	269.78	6,498.7	2,363.8	-0.1	-15.6	15.6	12.00	669,905.70	726,884.76	
6,525.0	17.68	269.78	6,522.7	2,387.8	-0.1	-22.5	22.5	12.00	669,905.67	726,877.80	
6,550.0	20.68	269.78	6,546.3	2,411.4	-0.1	-30.8	30.8	12.00	669,905.64	726,869.59	
6,575.0	23.68	269.78	6,569.4	2,434.5	-0.2	-40.2	40.2	12.00	669,905.61	726,860.15	
6,600.0	26.68	269.78	6,592.1	2,457.2	-0.2	-50.8	50.8	12.00	669,905.57	726,849.52	
6,625.0	29.68	269.78	6,614.1	2,479.2	-0.2	-62.6	62.6	12.00	669,905.52	726,837.72	
6,650.0	32.68	269.78	6,635.5	2,500.6	-0.3	-75.6	75.6	12.00	669,905.47	726,824.78	
6,675.0	35.68	269.78	6,656.2	2,521.3	-0.3	-89.6	89.6	12.00	669,905.42	726,810.73	
6,700.0	38.68	269.78	6,676.1	2,541.2	-0.4	-104.7	104.7	12.00	669,905.36	726,795.63	
6,725.0	41.68	269.78	6,695.2	2,560.3	-0.5	-120.8	120.8	12.00	669,905.30	726,779.50	
6,750.0	44.68	269.78	6,713.4	2,578.5	-0.5	-137.9	137.9	12.00	669,905.23	726,762.40	
6,775.0	47.68	269.78	6,730.7	2,595.8	-0.6	-156.0	156.0	12.00	669,905.16	726,744.36	



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Pathfinder Pathfinder X&Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County (NAD83)	TVD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Site:	BAE 14 Fed Com	MD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
6,800.0	50.68	269.78	6,747.1	2,612.2	-0.7	-174.9	174.9	12.00	669,905.09	726,725.45	
6,825.0	53.68	269.78	6,762.4	2,627.5	-0.7	-194.6	194.6	12.00	669,905.01	726,705.70	
6,850.0	56.68	269.78	6,776.7	2,641.8	-0.8	-215.2	215.2	12.00	669,904.94	726,685.18	
6,875.0	59.68	269.78	6,789.8	2,654.9	-0.9	-236.4	236.4	12.00	669,904.86	726,663.94	
6,900.0	62.68	269.78	6,801.9	2,667.0	-1.0	-258.3	258.3	12.00	669,904.77	726,642.04	
6,925.0	65.68	269.78	6,812.8	2,677.9	-1.1	-280.8	280.8	12.00	669,904.69	726,619.54	
6,950.0	68.68	269.78	6,822.5	2,687.6	-1.2	-303.8	303.8	12.00	669,904.60	726,596.50	
6,975.0	71.68	269.78	6,831.0	2,696.1	-1.3	-327.4	327.4	12.00	669,904.51	726,572.99	
7,000.0	74.68	269.78	6,838.2	2,703.3	-1.3	-351.3	351.3	12.00	669,904.42	726,549.06	
7,025.0	77.68	269.78	6,844.2	2,709.3	-1.4	-375.6	375.6	12.00	669,904.32	726,524.79	
7,050.0	80.68	269.78	6,848.9	2,714.0	-1.5	-400.1	400.1	12.00	669,904.23	726,500.24	
7,075.0	83.68	269.78	6,852.3	2,717.4	-1.6	-424.9	424.9	12.00	669,904.13	726,475.47	
7,100.0	86.68	269.78	6,854.4	2,719.5	-1.7	-449.8	449.8	12.00	669,904.04	726,450.56	
7,125.0	89.68	269.78	6,855.2	2,720.3	-1.8	-474.8	474.8	12.00	669,903.94	726,425.58	
7,140.6	91.55	269.78	6,855.0	2,720.1	-1.9	-490.3	490.4	12.00	669,903.88	726,409.99	
7,200.0	91.55	269.78	6,853.4	2,718.5	-2.1	-549.7	549.7	0.00	669,903.66	726,350.60	
7,300.0	91.55	269.78	6,850.7	2,715.8	-2.5	-649.7	649.7	0.00	669,903.27	726,250.64	
7,400.0	91.55	269.78	6,848.0	2,713.1	-2.9	-749.7	749.7	0.00	669,902.89	726,150.68	
7,500.0	91.55	269.78	6,845.3	2,710.4	-3.3	-849.6	849.6	0.00	669,902.51	726,050.71	
7,600.0	91.55	269.78	6,842.6	2,707.7	-3.6	-949.6	949.6	0.00	669,902.13	725,950.75	
7,700.0	91.55	269.78	6,839.9	2,705.0	-4.0	-1,049.6	1,049.6	0.00	669,901.74	725,850.79	
7,800.0	91.55	269.78	6,837.2	2,702.3	-4.4	-1,149.5	1,149.5	0.00	669,901.36	725,750.83	
7,900.0	91.55	269.78	6,834.5	2,699.6	-4.8	-1,249.5	1,249.5	0.00	669,900.98	725,650.86	
8,000.0	91.55	269.78	6,831.8	2,696.9	-5.2	-1,349.4	1,349.5	0.00	669,900.59	725,550.90	
8,100.0	91.55	269.78	6,829.1	2,694.2	-5.5	-1,449.4	1,449.4	0.00	669,900.21	725,450.94	
8,200.0	91.55	269.78	6,826.4	2,691.5	-5.9	-1,549.4	1,549.4	0.00	669,899.83	725,350.97	
8,300.0	91.55	269.78	6,823.7	2,688.8	-6.3	-1,649.3	1,649.3	0.00	669,899.45	725,251.01	



A Schlumberger Company

Pathfinder Pathfinder X&Y Report



Company: Devon Energy, Inc.
Project: Lea County (NAD83)
Site: BAE 14 Fed Corn
Well: #2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = 18' @ 4134.9usft (Original Well Elev)
MD Reference: KB = 18' @ 4134.9usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
8,400.0	91.55	269.78	6,821.0	2,686.1	-6.7	-1,749.3	1,749.3	0.00	669,899.06	725,151.05
8,500.0	91.55	269.78	6,818.3	2,683.4	-7.1	-1,849.3	1,849.3	0.00	669,898.68	725,051.09
8,600.0	91.55	269.78	6,815.6	2,680.7	-7.5	-1,949.2	1,949.2	0.00	669,898.30	724,951.12
8,700.0	91.55	269.78	6,812.9	2,678.0	-7.8	-2,049.2	2,049.2	0.00	669,897.92	724,851.16
8,800.0	91.55	269.78	6,810.2	2,675.3	-8.2	-2,149.1	2,149.2	0.00	669,897.53	724,751.20
8,900.0	91.55	269.78	6,807.5	2,672.6	-8.6	-2,249.1	2,249.1	0.00	669,897.15	724,651.23
9,000.0	91.55	269.78	6,804.8	2,669.9	-9.0	-2,349.1	2,349.1	0.00	669,896.77	724,551.27
9,025.8	91.55	269.78	6,804.1	2,669.2	-9.1	-2,374.8	2,374.8	0.00	669,896.67	724,525.52
TGT Box										
9,100.0	91.55	269.78	6,802.1	2,667.2	-9.4	-2,449.0	2,449.0	0.00	669,896.39	724,451.31
9,200.0	91.55	269.78	6,799.4	2,664.5	-9.8	-2,549.0	2,549.0	0.00	669,896.00	724,351.35
9,300.0	91.55	269.78	6,796.7	2,661.8	-10.1	-2,649.0	2,649.0	0.00	669,895.62	724,251.38
9,400.0	91.55	269.78	6,794.0	2,659.1	-10.5	-2,748.9	2,748.9	0.00	669,895.24	724,151.42
9,500.0	91.55	269.78	6,791.3	2,656.4	-10.9	-2,848.9	2,848.9	0.00	669,894.86	724,051.46
9,600.0	91.55	269.78	6,788.6	2,653.7	-11.3	-2,948.8	2,948.9	0.00	669,894.47	723,951.49
9,700.0	91.55	269.78	6,785.9	2,651.0	-11.7	-3,048.8	3,048.8	0.00	669,894.09	723,851.53
9,800.0	91.55	269.78	6,783.2	2,648.3	-12.1	-3,148.8	3,148.8	0.00	669,893.71	723,751.57
9,900.0	91.55	269.78	6,780.5	2,645.6	-12.4	-3,248.7	3,248.8	0.00	669,893.32	723,651.61
10,000.0	91.55	269.78	6,777.8	2,642.9	-12.8	-3,348.7	3,348.7	0.00	669,892.94	723,551.64
10,100.0	91.55	269.78	6,775.1	2,640.2	-13.2	-3,448.7	3,448.7	0.00	669,892.56	723,451.68
10,200.0	91.55	269.78	6,772.4	2,637.5	-13.6	-3,548.6	3,548.6	0.00	669,892.18	723,351.72
10,300.0	91.55	269.78	6,769.7	2,634.8	-14.0	-3,648.6	3,648.6	0.00	669,891.79	723,251.75
10,400.0	91.55	269.78	6,767.0	2,632.1	-14.3	-3,748.5	3,748.6	0.00	669,891.41	723,151.79
10,500.0	91.55	269.78	6,764.3	2,629.4	-14.7	-3,848.5	3,848.5	0.00	669,891.03	723,051.83
10,600.0	91.55	269.78	6,761.6	2,626.7	-15.1	-3,948.5	3,948.5	0.00	669,890.65	722,951.87
10,700.0	91.55	269.78	6,758.9	2,624.0	-15.5	-4,048.4	4,048.5	0.00	669,890.26	722,851.90
10,800.0	91.55	269.78	6,756.2	2,621.3	-15.9	-4,148.4	4,148.4	0.00	669,889.88	722,751.94



A Schlumberger Company

Pathfinder
Pathfinder X&Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County (NAD83)	TVD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Site:	BAE 14 Fed Com	MD Reference:	KB = 18' @ 4134.9usft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)		TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
10,900.0	91.55	269.78	269.78	6,753.5	2,618.6	-16.3	-4,248.4	4,248.4	0.00	669,889.50	722,651.98
11,000.0	91.55	269.78	269.78	6,750.8	2,615.9	-16.6	-4,348.3	4,348.4	0.00	669,889.12	722,552.01
11,100.0	91.55	269.78	269.78	6,748.1	2,613.2	-17.0	-4,448.3	4,448.3	0.00	669,888.73	722,452.05
11,200.0	91.55	269.78	269.78	6,745.4	2,610.5	-17.4	-4,548.3	4,548.3	0.00	669,888.35	722,352.09
11,300.0	91.55	269.78	269.78	6,742.7	2,607.8	-17.8	-4,648.2	4,648.2	0.00	669,887.97	722,252.13
11,401.5	91.55	269.78	269.78	6,740.0	2,605.1	-18.2	-4,749.6	4,749.7	0.00	669,887.58	722,150.71
BAE 14 Fed Com #2H PBHL											

Checked By: _____	Approved By: _____	Date: _____
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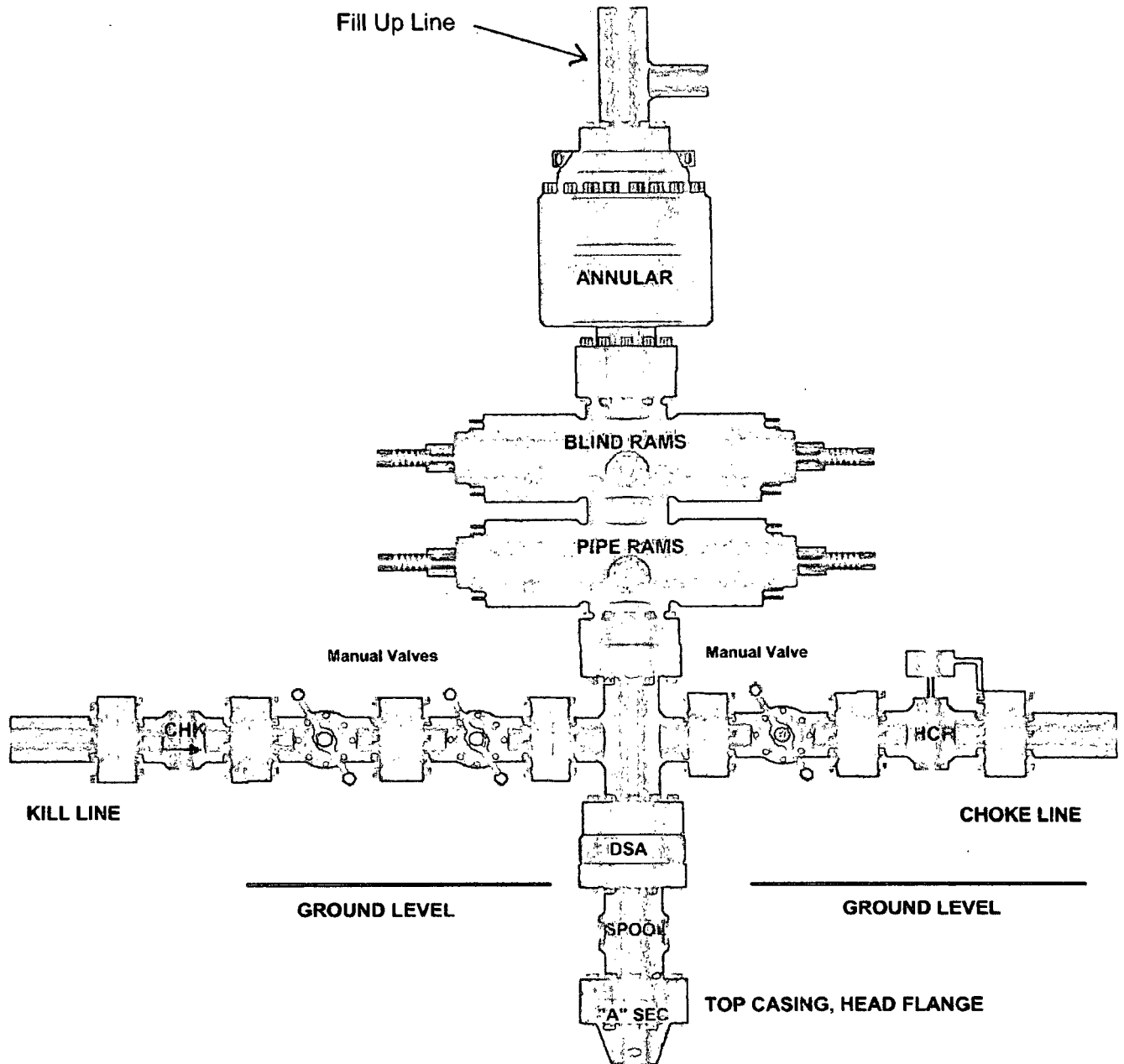
NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP
BAE 14 Fed Com 2H

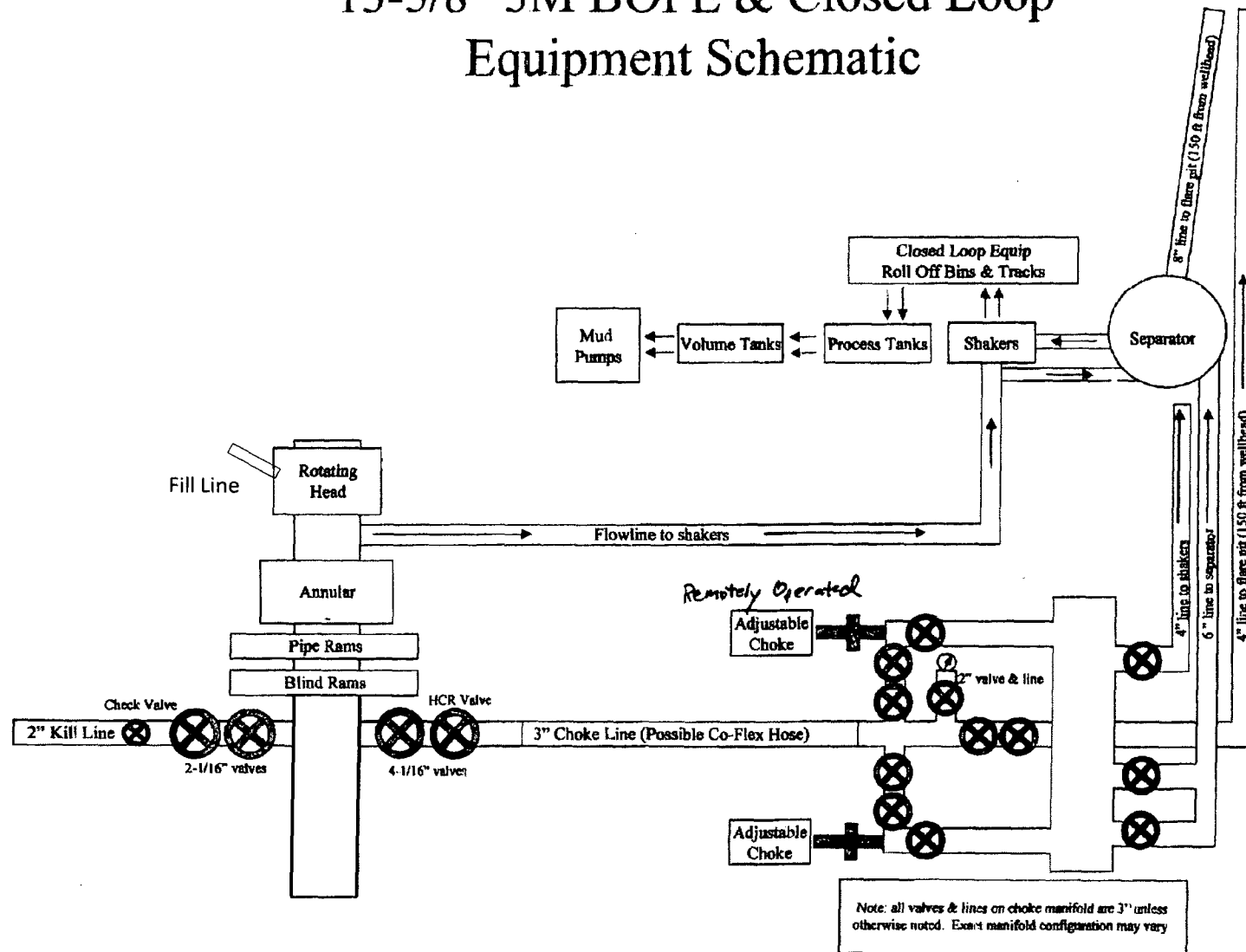
Surface Location: 610 FNL & 200 FEL, Unit A, Sec 14 T17S R32E, Lea, NM
Bottom Hole Location: 610 FNL & 330 FWL, Unit D, Sec 14 T17S R32E, Lea, NM

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.

13-5/8" x 3,000 psi BOP Stack



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





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

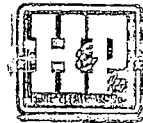
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

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

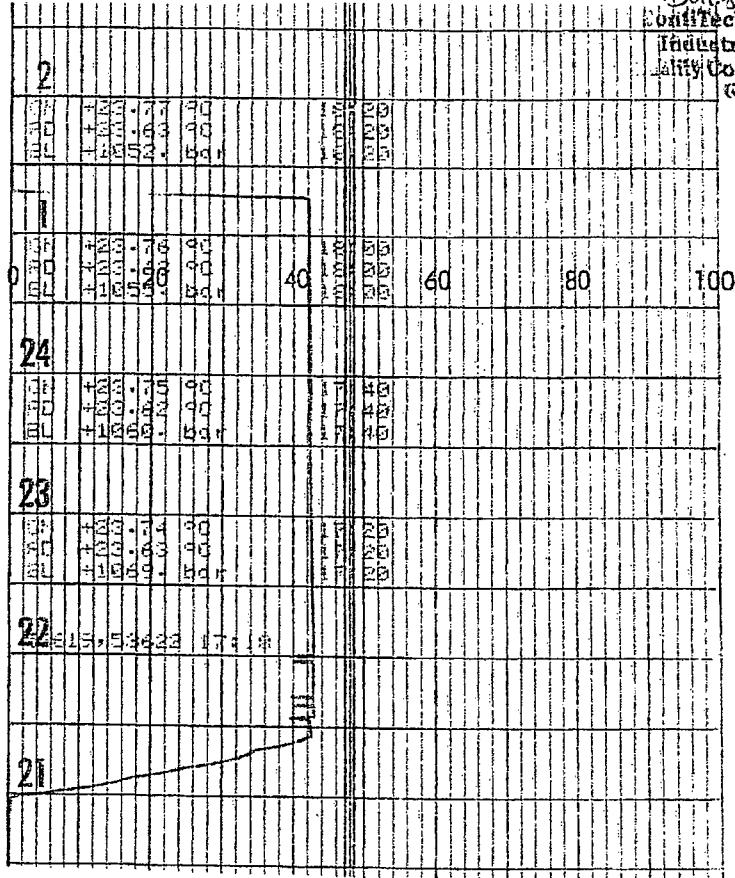
ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com



QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1713	
PURCHASER: ContiTech Beattie Co.			P.O. N°: 002808		
CONTITECH ORDER N°: 426127		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 53622		NOMINAL / ACTUAL LENGTH: 10,67 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature					
See attachment. (1 page)					
↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS Type		Serial N°		Quality	
3" coupling with 4 1/16" Flange end		5503 2029		AISI 4130 AISI 4130	
				Heat N° N1590P 27566	
INFOCHIP INSTALLED				API Spec 16 C Temperature rate:"B"	
All metal parts are flawless				Hose conform to NACE MR 01-75	
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date: 25. August. 2008		Inspector		Quality Control ContiTech Rubber Industrial Kft. Quality Control Dept. (2)	

H&P 416

HARTMANN &



ConiTech Rubber
 Industrial Kft.
 Quality Control Dept.
 (3)