

OCD-HOBBS

HOBBS OCD

Form 3160-3
(April 2004)

Split Estate

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAY 23 2012

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No 1004-0137
Expires March 31, 20075 Lease Serial No. **SAL-STATE**
NMNM 108969 NMNM 061863-A-DHL

6 If Indian, Allottee or Tribe Name

7 If Unit or CA Agreement, Name and No

8 Lease Name and Well No

Cotton Draw 32 State Fed Com 1H

9 API Well No.

30-025-40583

10 Field and Pool, or Exploratory

Paduca, Delaware; North

11 Sec, T R M or Blk and Survey or Area

SEC 32 T24S R32E

12 County or Parish

Lea County

13 State

NM1a Type of work: ☒ DRILL ☐ REENTER1b Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone2 Name of Operator
Devon Energy Production Company, LP3a Address **20 North Broadway**
Oklahoma City, Oklahoma City 73102-82603b Phone No. (include area code)
405-228-8699

4 Location of Well (Report location clearly and in accordance with any State requirements *)

At surface **NE/4 SE/4 2310 FSL & 660 FEL UNIT I**At proposed prod zone **SE/4 SE/4 330 FSL & 660 FEL Sec 5 UNIT P PP: 2310 FSL & 660 FEL**14 Distance in miles and direction from nearest town or post office*
Approximately 26 miles east of Malaga, NM.15 Distance from proposed*
location to nearest
property or lease line, ft
(Also to nearest drg unit line, if any)**200'**

16 No of acres in lease

1922.99

17 Spacing Unit dedicated to this well

240.39 Acres18 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft**See attached map.**

19 Proposed Depth

15,506' MD 8482' TVD

20 BLM/BIA Bond No. on file

CO-1104 & NM800080121 Elevations (Show whether DF, KDB, RT, GL, etc)
3486.9' GL

22 Approximate date work will start*

23 Estimated duration

45 days

24. Attachments

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

1 Well plat certified by a registered surveyor

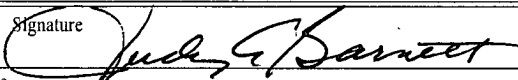
2 A Drilling Plan

3 A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO shall 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
authorized officer

25 Signature



Name (Printed/Typed)

Judy A. Barnett

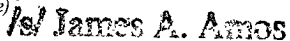
Date

03/06/2012

Title

Regulatory Specialist

Approved by (Signature)



Name (Printed/Typed)

James A. Amos

Date

MAY 17 2012

Title

FIELD MANAGER

Office

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

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

DRILLING PROGRAM

Devon Energy Production Company, LP
Cotton Draw 32 State Fed Com 1H

Surface Location: 2310' FSL & 660' FEL, Unit I, Sec 32 T24S R32E, Lea, NM
Bottom Hole Location: 330' FSL & 660' FEL, Unit P, Sec 5 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	180'	FW
b. Rustler Dol	782'	
c. Salado Salt	1142'	
d. Base of Salt	4382'	
e. Lamar	4599'	Oil per operator 3/21/12
f. Bell Canyon	4636'	Oil
g. Cherry Canyon	5557'	Oil
h. Brushy Canyon	6903'	Oil/Gas
i. L. Brushy	8482'	Oil/Gas
Total Depth	15,506'	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 850' and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at 4550' and circulating cement to surface. The Delaware intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing. **All casing is new and API approved.**

Casing Program:

	<u>Hole</u> <u>Size</u>	<u>Hole</u> <u>Interval</u>	<u>OD Csg</u>	<u>Casing</u> <u>Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
See com	17 1/2"	0' - 850' 865'	13 3/8"	0' - 850' 865'	48#	ST&C	H-40
	12 1/4"	850' - 4550'	9 5/8"	0' - 4550'	40#	LT&C	J-55
	8 3/4"	4550-7800'	5 1/2"	0- 7800'	17#	LT&C	HCP110
	8 3/4"	7800-15506	5 1/2"	7800-15506'	17#	BT&C	HCP110

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design</u>	<u>Burst Design</u>	<u>Tension Design</u>
	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
13 3/8" 48#	1.78	4.00	7.25
9 5/8" 40#	1.29	2.26	2.98
5 1/2" 17# LTC	1.74	2.12	1.60
5 1/2" 17#BTC	1.62	1.99	3.41

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. The pore pressure is estimated to be 9.0 ppg for this calculation. This results in a collapse design factor of 1.21 for the 9-5/8" 40# J-55 LTC casing at a depth of 4,550'. While running the intermediate casing, the casing string will never be completely evacuated. There is no potential for the intermediate casing to be used as a production string.

3. **Cement Program:** The cement volumes are based on 25% excess. Actual cement volumes could be adjusted based on fluid caliper and caliper log data.

- a. 13 3/8" Surface Lead w/ 900 Cl C + 2% bwoc Calcium Chloride + 0.125#/sx CF + 4% bwoc Bentonite + 81.4% FW, 13.5 ppg. Yld 1.75 cf/sx. TOC @ surface. Tail w/ 250 sx Cl C + 2% bwoc Calcium Chloride + 0.125#/sx CF + 56.3% FW, 14.8 ppg. Yld 1.35 cf/sx.
- b. 9 5/8" Intermediate Lead w/ 1000 sx 60:40 POZ (Fly Ash) Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 6% bwoc Bentonite + 107.8% FW, 12.5 ppg. Yld 1.73 cf/sx. TOC @ surface. Tail w/ 300 sx 60:40 POZ (Fly Ash) Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 52.7% FW, 14.8 ppg. Yld 1.38 cf/sx.
- c. 5 1/2" Production
 - 1st Stage
Lead w/ 500 sx 35:65 POZ (Fly Ash) Cl H + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 102.5% FW, 12.5 ppg. Yld 2.00 cf/sx. Tail w/ 2500 sx 50:50 POZ (Fly Ash) Cl H + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125#/sx CF + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% FW, 14.2 ppg. Yld 1.28 cf/sx.
DV Tool @ 6000'
 - 2nd Stage
Lead w/ 800 sx Cl C + 1% bwow Calcium Chloride + 0.125#/sx CF + 157.8% FW, 11.4 ppg. Yld 2.88 cf/sx. TOC @ 4050'. Tail w/ 150 sx 60:40 POZ (Fly Ash) Cl C + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125#/sx CF + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% FW, 13.8 ppg. Yld 1.38 cf/sx.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 500' above the 9 5/8" casing shoe.

4. Pressure Control Equipment

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

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.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 850' 865'	8.4-9.0	28-34	NC	FW
850' 850' - 4550'	9.8-10.2	28-32	NC	Brine
4550' - 15,506'	8.6-9.0	28-32	NC-12	FW

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

5. Auxiliary Well Control and Monitoring Equipment:

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

6. Logging, Coring, and Testing Program: *See COA*

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

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

7. 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 3560 psi and Estimated BHT 140°. No H₂S is anticipated to be encountered.

8. 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

COTTON DRAW 32 FEDERAL COM 1H

LEA COUNTY, NM

WELL FILE: **PLAN 1**

FEBRUARY 29, 2012

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

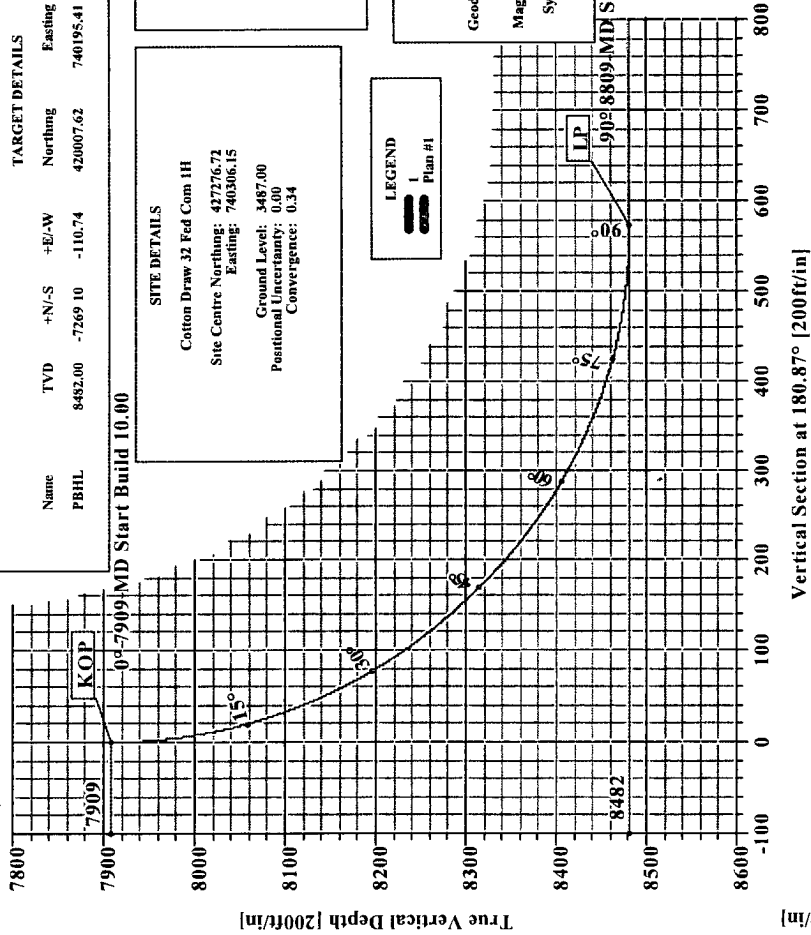
+1 432.561.8895 Fax

www.weatherford.com



Cotton Draw 32 Fed Com 1H
Lea County, New Mexico

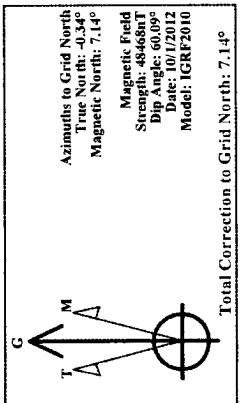
KB ELEV: 3487
GL ELEV: 3513



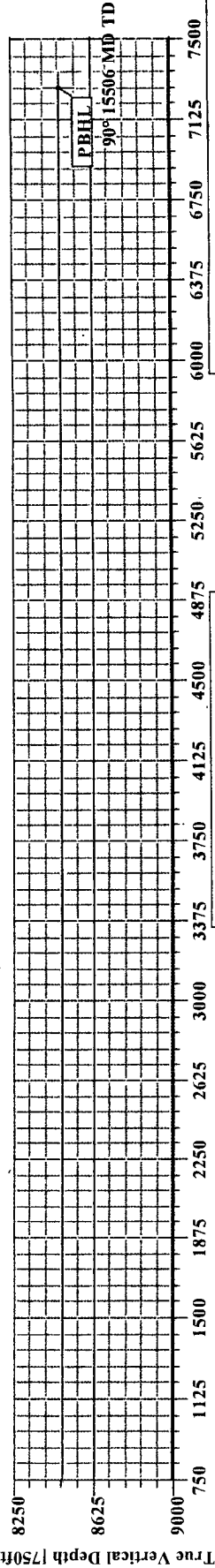
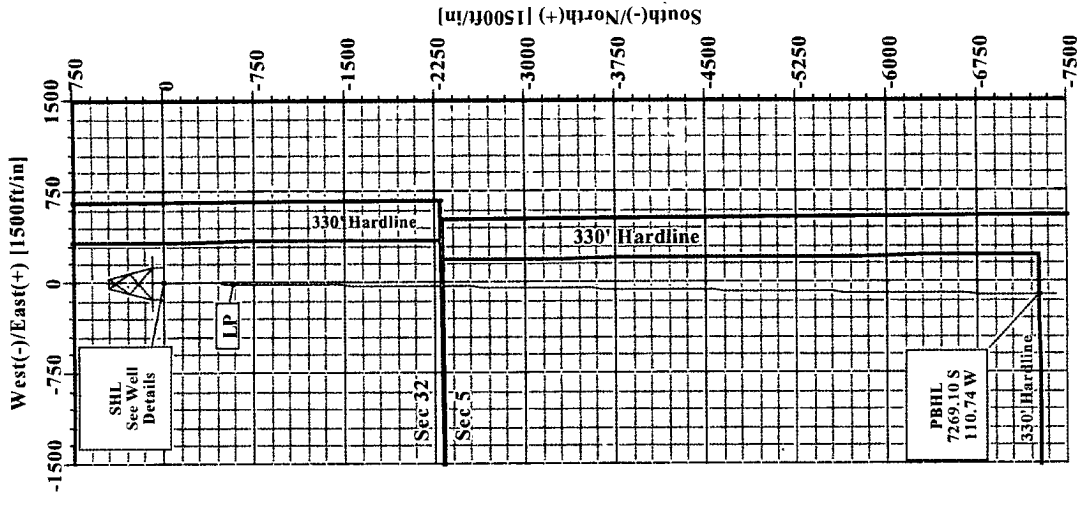
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec Target
1	0.00	0.00	180.87	0.00	0.00	0.00	0.00	0.00	0.00
2	7909.04	0.00	180.87	7909.04	0.00	0.00	0.00	0.00	0.00
3	8809.04	90.00	180.87	8482.00	-572.89	-8.73	10.00	180.87	572.96
4	15506.03	90.00	180.87	8482.00	-7269.10	-110.74	0.00	0.00	7269.94

WELL DETAILS					
Name	+N/-S	+E/-W	Northing	Easting	Latitude
CD 32 Fed Com 1H	0.00	0.00	42726.72	740306.15	32°10'22.889N
					103°41'24.988W
					N/A

TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL	8482.00	-7269.10	-110.74	420007.62	740195.41
					32°09'10.965N
					103°41'26.781W
					Pant



FIELD DETAILS
Lea County, New Mexico (NAD 83)
Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North





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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy		Date: 2/29/2012	Time: 12:43:19	Page: 1						
Field: Lea County, New Mexico (NAD 83)		Co-ordinate(NE) Reference:	Well CD 32 Fed Com 1H, Grid North							
Site: Cotton Draw 32 Fed Com 1H		Vertical (TVD) Reference:	SITE 3513 0							
Well: CD 32 Fed Com 1H		Section (VS) Reference:	Well (0.00N,0 00E,180 87Azi)							
Wellpath: 1		Survey Calculation Method:	Minimum Curvature Db: Sybase							
Plan: Plan #1		Date Composed:	2/29/2012							
Principal: Yes		Version:	1							
		Tied-to:	From Surface							
Field: Lea County, New Mexico (NAD 83)										
Map System: US State Plane Coordinate System 1983		Map Zone:	New Mexico, Eastern Zone							
Geo Datum: GRS 1980		Coordinate System:	Well Centre							
Sys Datum: Mean Sea Level		Geomagnetic Model:	IGRF2010							
Site: Cotton Draw 32 Fed Com 1H										
Site Position:	Northing:	427276.72 ft	Latitude:	32 10 22 889 N						
From: Map	Easting:	740306 15 ft	Longitude:	103 41 24 988 W						
Position Uncertainty:	0.00 ft		North Reference:	Grid						
Ground Level:	3487.00 ft		Grid Convergence:	0 34 deg						
Well: CD 32 Fed Com 1H Slot Name:										
Well Position:	+N/-S	0 00 ft	Northing:	427276 72 ft						
	+E/-W	0 00 ft	Easting :	740306 15 ft						
Position Uncertainty:	0.00 ft		Latitude:	32 10 22 889 N						
			Longitude:	103 41 24.988 W						
Wellpath: 1										
Current Datum:	SITE	Height	3513 00 ft	Drilled From: Surface						
Magnetic Data:	10/1/2012			Tie-on Depth: 0 00 ft						
Field Strength:	48468 nT			Above System Datum: Mean Sea Level						
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Declination: 7.48 deg						
	ft	ft	ft	Mag Dip Angle: 60 09 deg						
				Direction						
				deg						
	8482 00	0 00	0.00	180 87						
Plan Section Information										
MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0 00	0 00	180 87	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
7909.04	0 00	180 87	7909 04	0 00	0 00	0 00	0 00	0 00	0 00	
8809.04	90 00	180 87	8482.00	-572 89	-8.73	10 00	10 00	0 00	180.87	
15506.03	90.00	180 87	8482 00	-7269 10	-110 74	0 00	0 00	0 00	0 00	PBHL
Survey										
MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	MapN	MapE	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	ft	
7900 00	0.00	180.87	7900.00	0.00	0.00	0.00	0.00	427276 72	740306.15	
7909 04	0 00	180.87	7909.04	0 00	0.00	0.00	0 00	427276 72	740306.15	KOP
8000 00	9 10	180 87	7999 62	-7 20	-0 11	7 20	10.00	427269 52	740306.04	
8100.00	19.10	180 87	8096.48	-31 52	-0.48	31 53	10.00	427245 20	740305 67	
8200.00	29 10	180 87	8187.65	-72 29	-1 10	72 30	10 00	427204 43	740305 05	
8300.00	39 10	180 87	8270 36	-128 27	-1 95	128 29	10 00	427148 45	740304 20	
8400.00	49 10	180.87	8342 09	-197.76	-3 01	197 79	10 00	427078 96	740303 14	
8500 00	59.10	180.87	8400 66	-278 65	-4 25	278.68	10 00	426998.07	740301 90	
8600 00	69 10	180.87	8444.29	-368 48	-5 61	368.52	10 00	426908 24	740300 54	
8700 00	79 10	180.87	8471.66	-464.52	-7.08	464.57	10 00	426812.20	740299 07	
8800 00	89 10	180.87	8481 93	-563 85	-8.59	563.92	10 00	426712 87	740297 56	
8809 04	90 00	180 87	8482 00	-572.89	-8.73	572.96	10 00	426703.83	740297 42	LP
8900 00	90 00	180 87	8482 00	-663 84	-10 11	663 92	0 00	426612 88	740296 04	
9000 00	90 00	180.87	8482.00	-763.83	-11 64	763.92	0 00	426512 89	740294.51	
9100.00	90 00	180.87	8482 00	-863 82	-13 16	863 92	0 00	426412 90	740292.99	
9200 00	90 00	180 87	8482.00	-963.80	-14.68	963.92	0 00	426312 92	740291 47	
9300 00	90 00	180 87	8482 00	-1063.79	-16 21	1063 92	0 00	426212 93	740289 94	



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Cotton Draw 32 Fed Com 1H
Well: CD 32 Fed Com 1H
Wellpath: 1

Date: 2/29/2012 Time: 12 43:19 Page: 2
Co-ordinate(NE) Reference: Well CD 32 Fed Com 1H, Grid North
Vertical (TVD) Reference: SITE 3513.0
Section (VS) Reference: Well (0.00N,0.00E,180.87Azi)
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
9400.00	90.00	180.87	8482.00	-1163.78	-17.73	1163.92	0.00	426112.94	740288.42	
9500.00	90.00	180.87	8482.00	-1263.77	-19.25	1263.92	0.00	426012.95	740286.90	
9600.00	90.00	180.87	8482.00	-1363.76	-20.78	1363.92	0.00	425912.96	740285.37	
9700.00	90.00	180.87	8482.00	-1463.75	-22.30	1463.92	0.00	425812.97	740283.85	
9800.00	90.00	180.87	8482.00	-1563.73	-23.82	1563.92	0.00	425712.99	740282.33	
9900.00	90.00	180.87	8482.00	-1663.72	-25.35	1663.92	0.00	425613.00	740280.80	
10000.00	90.00	180.87	8482.00	-1763.71	-26.87	1763.92	0.00	425513.01	740279.28	
10100.00	90.00	180.87	8482.00	-1863.70	-28.39	1863.92	0.00	425413.02	740277.76	
10200.00	90.00	180.87	8482.00	-1963.69	-29.92	1963.92	0.00	425313.03	740276.23	
10300.00	90.00	180.87	8482.00	-2063.68	-31.44	2063.92	0.00	425213.04	740274.71	
10400.00	90.00	180.87	8482.00	-2163.66	-32.96	2163.92	0.00	425113.06	740273.19	
10500.00	90.00	180.87	8482.00	-2263.65	-34.49	2263.92	0.00	425013.07	740271.66	
10600.00	90.00	180.87	8482.00	-2363.64	-36.01	2363.92	0.00	424913.08	740270.14	
10700.00	90.00	180.87	8482.00	-2463.63	-37.53	2463.92	0.00	424813.09	740268.62	
10800.00	90.00	180.87	8482.00	-2563.62	-39.06	2563.92	0.00	424713.10	740267.09	
10900.00	90.00	180.87	8482.00	-2663.61	-40.58	2663.92	0.00	424613.11	740265.57	
11000.00	90.00	180.87	8482.00	-2763.60	-42.10	2763.92	0.00	424513.12	740264.05	
11100.00	90.00	180.87	8482.00	-2863.58	-43.62	2863.92	0.00	424413.14	740262.53	
11200.00	90.00	180.87	8482.00	-2963.57	-45.15	2963.92	0.00	424313.15	740261.00	
11300.00	90.00	180.87	8482.00	-3063.56	-46.67	3063.92	0.00	424213.16	740259.48	
11400.00	90.00	180.87	8482.00	-3163.55	-48.19	3163.92	0.00	424113.17	740257.96	
11500.00	90.00	180.87	8482.00	-3263.54	-49.72	3263.92	0.00	424013.18	740256.43	
11600.00	90.00	180.87	8482.00	-3363.53	-51.24	3363.92	0.00	423913.19	740254.91	
11700.00	90.00	180.87	8482.00	-3463.51	-52.76	3463.92	0.00	423813.21	740253.39	
11800.00	90.00	180.87	8482.00	-3563.50	-54.29	3563.92	0.00	423713.22	740251.86	
11900.00	90.00	180.87	8482.00	-3663.49	-55.81	3663.92	0.00	423613.23	740250.34	
12000.00	90.00	180.87	8482.00	-3763.48	-57.33	3763.92	0.00	423513.24	740248.82	
12100.00	90.00	180.87	8482.00	-3863.47	-58.86	3863.92	0.00	423413.25	740247.29	
12200.00	90.00	180.87	8482.00	-3963.46	-60.38	3963.92	0.00	423313.26	740245.77	
12300.00	90.00	180.87	8482.00	-4063.44	-61.90	4063.92	0.00	423213.28	740244.25	
12400.00	90.00	180.87	8482.00	-4163.43	-63.43	4163.92	0.00	423113.29	740242.72	
12500.00	90.00	180.87	8482.00	-4263.42	-64.95	4263.92	0.00	423013.30	740241.20	
12600.00	90.00	180.87	8482.00	-4363.41	-66.47	4363.92	0.00	422913.31	740239.68	
12700.00	90.00	180.87	8482.00	-4463.40	-68.00	4463.92	0.00	422813.32	740238.15	
12800.00	90.00	180.87	8482.00	-4563.39	-69.52	4563.92	0.00	422713.33	740236.63	
12900.00	90.00	180.87	8482.00	-4663.37	-71.04	4663.92	0.00	422613.35	740235.11	
13000.00	90.00	180.87	8482.00	-4763.36	-72.57	4763.92	0.00	422513.36	740233.58	
13100.00	90.00	180.87	8482.00	-4863.35	-74.09	4863.92	0.00	422413.37	740232.06	
13200.00	90.00	180.87	8482.00	-4963.34	-75.61	4963.92	0.00	422313.38	740230.54	
13300.00	90.00	180.87	8482.00	-5063.33	-77.14	5063.92	0.00	422213.39	740229.01	
13400.00	90.00	180.87	8482.00	-5163.32	-78.66	5163.92	0.00	422113.40	740227.49	
13500.00	90.00	180.87	8482.00	-5263.30	-80.18	5263.92	0.00	422013.42	740225.97	
13600.00	90.00	180.87	8482.00	-5363.29	-81.71	5363.92	0.00	421913.43	740224.44	
13700.00	90.00	180.87	8482.00	-5463.28	-83.23	5463.92	0.00	421813.44	740222.92	
13800.00	90.00	180.87	8482.00	-5563.27	-84.75	5563.92	0.00	421713.45	740221.40	
13900.00	90.00	180.87	8482.00	-5663.26	-86.28	5663.92	0.00	421613.46	740219.87	
14000.00	90.00	180.87	8482.00	-5763.25	-87.80	5763.92	0.00	421513.47	740218.35	
14100.00	90.00	180.87	8482.00	-5863.24	-89.32	5863.92	0.00	421413.48	740216.83	
14200.00	90.00	180.87	8482.00	-5963.22	-90.85	5963.92	0.00	421313.50	740215.30	
14300.00	90.00	180.87	8482.00	-6063.21	-92.37	6063.92	0.00	421213.51	740213.78	
14400.00	90.00	180.87	8482.00	-6163.20	-93.89	6163.92	0.00	421113.52	740212.26	
14500.00	90.00	180.87	8482.00	-6263.19	-95.42	6263.92	0.00	421013.53	740210.73	
14600.00	90.00	180.87	8482.00	-6363.18	-96.94	6363.92	0.00	420913.54	740209.21	



Weatherford International Ltd.

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Cotton Draw 32 Fed Com 1H
Well: CD 32 Fed Com 1H
Wellpath: 1

Date: 2/29/2012 Time: 12 43:19 Page: 3
Co-ordinate(NE) Reference: Well: CD 32 Fed Com 1H, Grid North
Vertical (TVD) Reference: SITE 3513.0
Section (VS) Reference: Well (0.00N,0.00E,180 87Azi)
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
14700.00	90.00	180.87	8482.00	-6463.17	-98.46	6463.92	0.00	420813.55	740207.69	
14800.00	90.00	180.87	8482.00	-6563.15	-99.99	6563.92	0.00	420713.57	740206.16	
14900.00	90.00	180.87	8482.00	-6663.14	-101.51	6663.92	0.00	420613.58	740204.64	
15000.00	90.00	180.87	8482.00	-6763.13	-103.03	6763.92	0.00	420513.59	740203.12	
15100.00	90.00	180.87	8482.00	-6863.12	-104.56	6863.92	0.00	420413.60	740201.59	
15200.00	90.00	180.87	8482.00	-6963.11	-106.08	6963.92	0.00	420313.61	740200.07	
15300.00	90.00	180.87	8482.00	-7063.10	-107.60	7063.92	0.00	420213.62	740198.55	
15400.00	90.00	180.87	8482.00	-7163.08	-109.12	7163.92	0.00	420113.64	740197.03	
15500.00	90.00	180.87	8482.00	-7263.07	-110.65	7263.92	0.00	420013.65	740195.50	
15506.03	90.00	180.87	8482.00	-7269.10	-110.74	7269.94	0.00	420007.62	740195.41	PBHL

Targets

Name	Description	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<-- Latitude -->			<-- Longitude -->		
	Dip.							Deg	Min	Sec	Deg	Min	Sec
PBHL			8482 00	-7269 10	-110 74	420007 62	740195 41	32	9	10 965 N	103	41	26.781 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
7909.04	7909.04	KOP
8809.04	8482.00	LP
15506.02	8482.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

**Weatherford*****Weatherford Drilling Services**

GeoDec v5.03

Report Date: February 29, 2012
Job Number: _____
Customer: Devon Energy
Well Name: Cotton Draw 32 Federal Com 1H
API Number: _____
Rig Name: _____
Location: Lea County, NM
Block: _____
Engineer: KRN

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 427276.720 USFT	Latitude 32.1730272 DEG
East/West 740306.150 USFT	Longitude -103.6902696 DEG
Grid Convergence: .34°	
Total Correction: +7.14°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.17303° N	32° 10 min 22.898 sec
Longitude =	103.69027° W	103° 41 min 24.971 sec

Magnetic Declination =	7.48°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6602
Local Field Strength =	48464 nT	Magnetic Vector X = 23963 nT
Magnetic Dip =	60.09°	Magnetic Vector Y = 3146 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42008 nT
Spud Date =	Oct 01, 2012	Magnetic Vector H = 24168 nT

Signed: _____

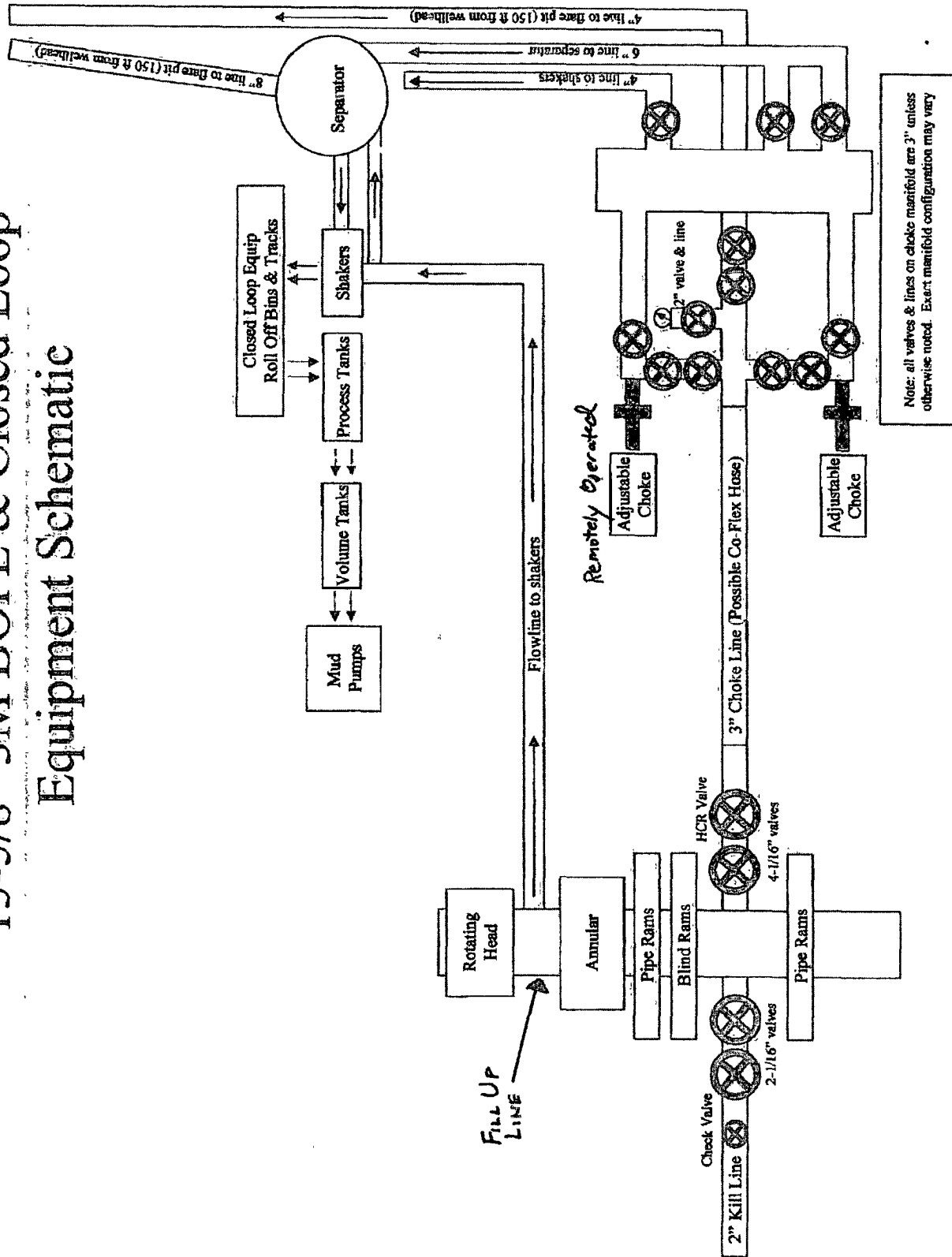
Date: _____

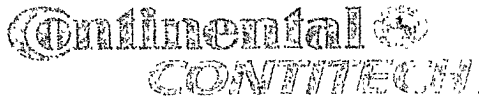
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Cotton Draw 32 State Fed Com 1H

Surface Location: 2310' FSL & 660' FEL, Unit I, Sec 32 T24S R32E, Lea, NM
Bottom Hole Location: 330' FSL & 660' FEL, Unit P, Sec 5 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.

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.

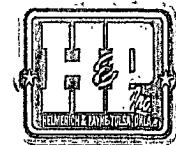
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

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 DOCUMENT

**PHOENIX RUBBER
INDUSTRIAL LTD.**

H-6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
Phone: (3662) 566-737 • Fax (3662) 566-738

SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (351) 456-4200 • Fax (351) 217-2972, 456-4273 • www.lburusemarg2.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE		CERT. N°: 555	
PURCHASER: Phoenix Beattie Co.		P.O. N°: 1519FA-871	
PHOENIX RUBBER order N°: 170466	HOSE TYPE: 3" ID	Choke and Kill Hose	
HOSE SERIAL N°: 34137	NOMINAL / ACTUAL LENGTH: 11,43 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 = 16 MPa

COUPLINGS

Type	Serial N°	Quality	Heat N°
3" coupling with 4 1/16" Flange end	714 715	AISI 4130	C7626
		AISI 4130	47357

API Spec 16 C
Temperature rate: "B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND
PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

Date: 30. April. 2002.	Inspector	Quality Control PHOENIX RUBBER Industrial Ltd. Hose Inspection and Test Dept.
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[Signature]
PHOENIX RUBBER
 Industrial Ltd.
 These Inspection and
 Certification Dept.

VERIFIED TRUE COPY
PHOENIX RUBBER C.S.

U.S. :