

OCD-ARTESIA

Secretary's Patch

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

EA 11-115

5. Lease Serial No.
NMNM-036379; K-4562
6. If Indian, Allottee or Tribe Name

1a. Type of work: ☒ DRILL ☐ REENTER			If Unit or CA Agreement, Name and No. NM 70928X		
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone			8. Lease Name and Well No. Cotton Draw Unit 137H		
2. Name of Operator Devon Energy Production Company, LP			9. API Well No. 30-015-38556		
3a. Address 20 North Broadway Oklahoma City, Oklahoma City 73102-8260		3b. Phone No. (include area code) 405-228-8699	10. Field and Pool, or Exploratory Paduca; Upper Bone Spring		
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 200 FSL & 1700 FWL UNIT N PP: SEC 2 187 FSL & 1656 FWL At proposed prod. zone 2600 FSL & 2298 FWL UNIT K SEC 35 T24S R31E			11. Sec., T. R. M. or Blk. and Survey or Area SEC 2 T25S R31E		
14. Distance in miles and direction from nearest town or post office* Approximately 21 miles east of Loving, NM.			12. County or Parish Eddy County	13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200'	16. No. of acres in lease 640 Acres	17. Spacing Unit dedicated to this well 240 Acres			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map.	19. Proposed Depth 16,642' MD 8980' TVD	20. BLM/BIA Bond No. on file CO-1104			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3420' 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. | 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 shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Judy A. Barnett</i>	Name (Printed/Typed) Judy A. Barnett	Date 11/16/2010
Title Regulatory Analyst		

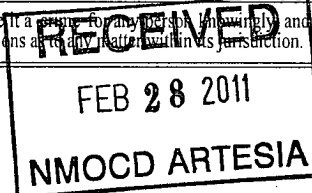
Approved by (Signature) rs/ Linda S.C. Rundell	Name (Printed/Typed)	Date FEB 16 2011
Title STATE DIRECTOR	Office NM STATE OFFICE	

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.

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.

*(Instructions on page 2)



CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

119

DRILLING PROGRAM

Devon Energy Production Company, LP

Cotton Draw Unit 137H

Surface Location: 200' FSL & 1700' FWL, Unit N, Sec 2 T25S R31E, Eddy, NM

Bottom Hole Location: 2600' FSL & 2279' FWL, Unit K, Sec 35 T24S R31E, Eddy, NM

1. **Geologic Name of Surface Formation**

a. Quaternary

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

a. Rustler	595'	
b. Salado Salt	965'	
c. Base of Salt	4080'	
d. Lamar	4305'	
e. Bell Canyon	4331'	
f. Cherry Canyon	5325'	
g. Brushy Canyon	6595'	
h. Bone Spring	8269'	Oil
i. Total Depth	16,642'	

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 17 1/2" casing at 650' and circulating cement back to surface. Fresh water sands will be protected by setting 9 5/8" casing at 4275' and circulating cement to surface. The Bone Spring 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.

Casing Program:

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0 - 650'	13 3/8"	0' - 650'	48#	ST&C	H-40
12 1/4"	650 - 4275'	9 5/8"	0' - 4275'	40#	LT&C	J-55
8 3/4"	4275 - 7900'	5 1/2"	0 - 7900'	20#	LT&C	HCP110
8 3/4"	7900 - 16642'	5 1/2"	7900 - 16,642'	17#	BTC	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"	2.53	5.69	10.32
9 5/8" 40#	1.16	1.78	3.04
5 1/2" 20#	2.02	2.88	1.60
5 1/2" 17#	1.77	2.53	3.67

Cement Program:

13 3/8"

See COA

Lead: 500 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 81.4% Fresh Water, 13.5 ppg **Yield:** 1.75 cf/sk **TOC @ surface**
Tail: 250 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water, 14.8 ppg **Yield:** 1.35 cf/sk

9 5/8" Intermediate

Lead: 1,200 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water, 12.5 ppg **Yield:** 2.04 cf/sk
TOC @ surface
Tail: 300 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Water, 13.8 ppg **Yield:** 1.37 cf/sk

5 1/2" Production

1st Stage

Lead: 500 sacks (35:65) Poz (Fly Ash):Class H Cement + 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% Fresh Water, 12.5 ppg **Yield:** 2.01 cf/sk
Tail: 2,500 sacks (50:50) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% Fresh Water, 14.2 ppg **Yield:** 1.28 cf/sk

DV TOOL at 6,000'

2nd Stage

Lead: 600 sacks Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg **Yield:** 2.89 cf/sk
Tail: 100 sacks (60:40) Poz (Fly Ash):Class C Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 13.8 ppg **Yield:** 1.37cf/sk **TOC @ 3,775'.**

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. All casing is new and API approved.

Pressure Control Equipment BOP DESIGN:

The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Double 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 casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 3M Double 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 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 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. See attached.

Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 650' ⁷⁰⁰	8.4-9.0	30-34	NC	FW
650' - 4275'	9.8-10.0	28-32	NC	Brine
4250' - 16,642'	8.6-9.0	28-32	NC	FW

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

3. 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 20" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 20" shoe until total depth is reached.

4. Logging, Coring, and Testing Program:

- 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.

Land Management
RECEIVED

082010

Unsaturated Office
Cottonwood, N.M.

CDU 137 H
Cotton Draw
Unit
PbF OK

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.

be-
coll

5. 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 4100 psi and Estimated BHT 140°. No H₂S is anticipated to be encountered.

6. Anticipated Starting Date and Duration of Operations:

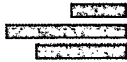
- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will 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 UNIT #137H

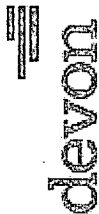
EDDY COUNTY, NM

WELL FILE: PLAN 1

NOVEMBER 1, 2010

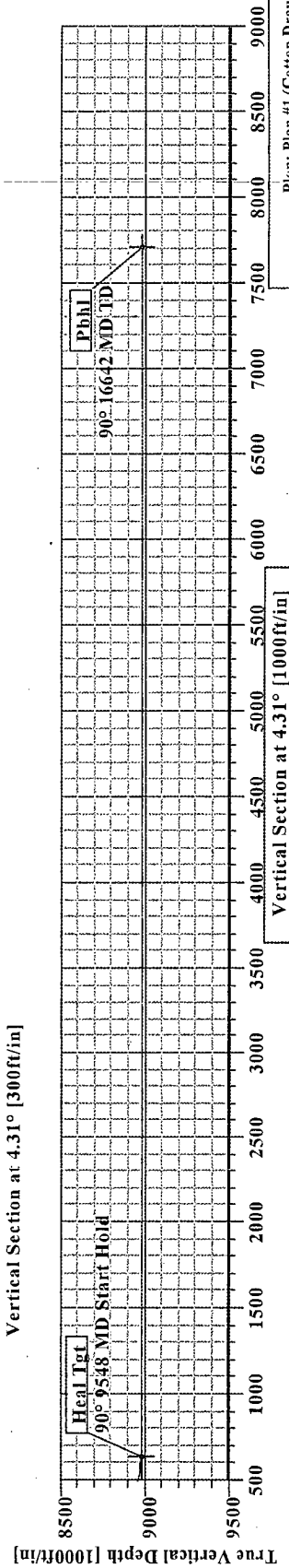
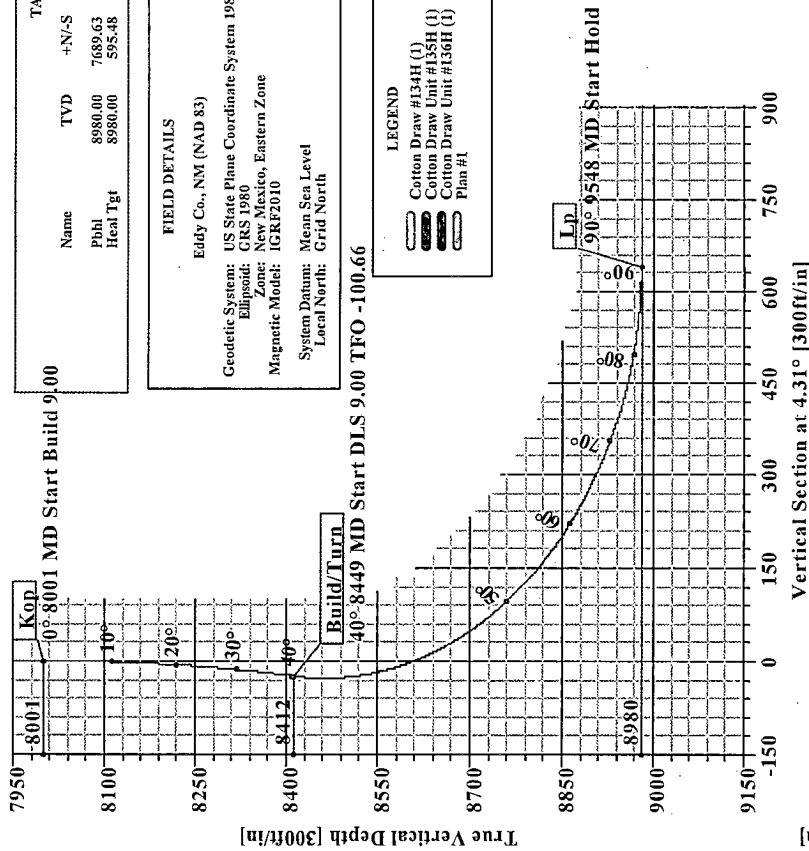
Weatherford International, Ltd.

P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
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www.weatherford.com



Cotton Draw Unit #137H Eddy Co., NM

KB ELEV: 3445
GL ELEV: 3420



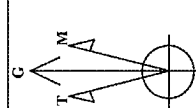
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8000.56	0.00	0.00	8000.56	0.00	0.00	0.00	0.00	0.00
3	8448.57	40.32	103.60	8412.49	-35.57	147.00	9.00	103.60	-24.43
4	9547.68	90.00	359.74	8980.00	595.48	611.72	9.00	-100.66	639.75
5	16641.91	90.00	359.74	8980.00	7689.63	579.26	0.00	0.00	7711.42

WELL DETAILS					
Name	+N/-S	+E/-W	Northing	Easting	Latitude
Cotton Draw Unit #137H	0.00	0.00	419733.40	721336.78	32°09'09.312N 103°45'06.163W
Slot	N/A				

TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
Phhl	8980.00	7689.63	579.26	427423.03	721916.04
Heal Tgt	8980.00	595.48	611.72	420328.88	721948.50

FIELD DETAILS					
Eddy Co., NM (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					

SITE DETAILS					
Cotton Draw Unit #137H					
Site Centre Northing: 419733.40					
Easting: 721336.78					
Ground Level: 3420.00					
Positional Uncertainty: 0.00					
Convergence: 0.31					

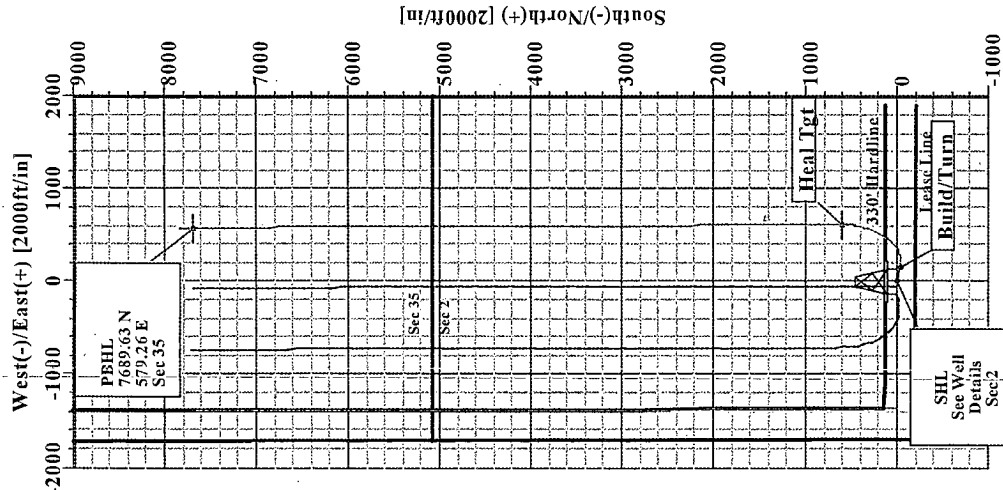


Azimuth to Grid North
True North: -0.31°
Magnetic North: 7.39°
Magnetic Field
Strength: 48604nT
Dip Angle: 60.10°
Date: 3/15/2011
Model: IGRF2010

Total Correction to Grid North: 7.39°



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Plan: Plan #1 (Cotton Draw Unit #137H/1)

Created By: Russell W. Joyner

Date: 11/1/2010



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy Date: 11/1/2010 Time: 12:34:37 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Site: Cotton Draw Unit #137H Vertical (TVD) Reference: SITE 3445.0
Well: Cotton Draw Unit #137H Section (VS) Reference: Well (0.00N,0.00E,4.31Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 10/29/2010
Principal: Yes Version: 1
Tied-to: From Surface

Field: Eddy Co., NM (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 Unit #137H

Site Position: Northing: 419733.40 ft Latitude: 32 9 9.312 N
From: Map Easting: 721336.78 ft Longitude: 103 45 6.163 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3420.00 ft Grid Convergence: 0.31 deg

Well: Cotton Draw Unit #137H Slot Name:
Well Position: +N/-S 0.00 ft Northing: 419733.40 ft Latitude: 32 9 9.312 N
+E/-W 0.00 ft Easting: 721336.78 ft Longitude: 103 45 6.163 W
Position Uncertainty: 0.00 ft

Wellpath: 1 Drilled From: Surface
Current Datum: SITE Height 3445.00 ft Tie-on Depth: 0.00 ft
Magnetic Data: 3/15/2011 Above System Datum: Mean Sea Level
Field Strength: 48604 nT Declination: 7.70 deg
Vertical Section: Depth From (TVD) +N/-S +E/-W Mag Dip Angle: 60.10 deg
ft ft ft deg
0.00 0.00 0.00 4.31

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	
8000.56	0.00	0.00	8000.56	0.00	0.00	0.00	0.00	0.00	0.00	
8448.57	40.32	103.60	8412.49	-35.57	147.00	9.00	9.00	0.00	103.60	
9547.68	90.00	359.74	8980.00	595.48	611.72	9.00	4.52	-9.45	-100.66	Heal Tgt
16641.91	90.00	359.74	8980.00	7689.63	579.26	0.00	0.00	0.00	0.00	Pbhl

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
8000.00	0.00	0.00	8000.00	0.00	0.00	0.00	0.00	419733.40	721336.78	
8000.56	0.00	103.60	8000.56	0.00	0.00	0.00	0.00	419733.40	721336.78	Kop
8100.00	8.95	103.60	8099.60	-1.82	7.53	-1.25	9.00	419731.58	721344.31	
8200.00	17.95	103.60	8196.75	-7.29	30.12	-5.01	9.00	419726.11	721366.90	
8300.00	26.95	103.60	8289.08	-16.26	67.20	-11.17	9.00	419717.14	721403.98	
8400.00	35.95	103.60	8374.30	-28.52	117.86	-19.59	9.00	419704.88	721454.64	
8448.57	40.32	103.60	8412.49	-35.57	147.00	-24.43	9.00	419697.83	721483.78	Build/Turn
8500.00	39.68	96.47	8451.91	-41.34	179.51	-27.74	9.00	419692.06	721516.29	
8600.00	39.72	82.36	8529.01	-40.68	243.03	-22.31	9.00	419692.72	721579.81	
8700.00	41.43	68.75	8605.11	-24.41	305.66	-1.38	9.00	419708.99	721642.44	
8800.00	44.61	56.39	8678.35	7.08	365.86	34.54	9.00	419740.48	721702.64	
8900.00	48.96	45.56	8746.92	53.01	422.15	84.57	9.00	419786.41	721758.93	
9000.00	54.20	36.21	8809.12	112.26	473.13	147.48	9.00	419845.66	721809.91	
9100.00	60.06	28.07	8863.44	183.36	517.57	221.72	9.00	419916.76	721854.35	
9200.00	66.37	20.87	8908.53	264.56	554.35	305.45	9.00	419997.96	721891.13	
9300.00	72.98	14.35	8943.28	353.86	582.57	396.62	9.00	420087.26	721919.35	



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit #137H
Well: Cotton Draw Unit #137H
Wellpath: 1

Date: 11/1/2010 Time: 12:34:37 Page: 2
Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0
Section (VS) Reference: Well (0.00N,0.00E,4.31Azi)
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	79.78	8.28	8966.84	449.07	601.55	492.99	9.00	420182.47	721938.33	
9500.00	86.69	2.47	8978.62	547.84	610.80	592.17	9.00	420281.24	721947.58	
9547.68	90.00	359.74	8980.00	595.48	611.72	639.75	9.00	420328.88	721948.50	Heal Tgt
9600.00	90.00	359.74	8980.00	647.80	611.48	691.90	0.00	420381.20	721948.26	
9700.00	90.00	359.74	8980.00	747.80	611.02	791.58	0.00	420481.20	721947.80	
9800.00	90.00	359.74	8980.00	847.79	610.57	891.26	0.00	420581.19	721947.35	
9900.00	90.00	359.74	8980.00	947.79	610.11	990.95	0.00	420681.19	721946.89	
10000.00	90.00	359.74	8980.00	1047.79	609.65	1090.63	0.00	420781.19	721946.43	
10100.00	90.00	359.74	8980.00	1147.79	609.19	1190.31	0.00	420881.19	721945.97	
10200.00	90.00	359.74	8980.00	1247.79	608.73	1289.99	0.00	420981.19	721945.51	
10300.00	90.00	359.74	8980.00	1347.79	608.28	1389.67	0.00	421081.19	721945.06	
10400.00	90.00	359.74	8980.00	1447.79	607.82	1489.36	0.00	421181.19	721944.60	
10500.00	90.00	359.74	8980.00	1547.79	607.36	1589.04	0.00	421281.19	721944.14	
10600.00	90.00	359.74	8980.00	1647.79	606.90	1688.72	0.00	421381.19	721943.68	
10700.00	90.00	359.74	8980.00	1747.79	606.45	1788.40	0.00	421481.19	721943.23	
10800.00	90.00	359.74	8980.00	1847.78	605.99	1888.08	0.00	421581.18	721942.77	
10900.00	90.00	359.74	8980.00	1947.78	605.53	1987.77	0.00	421681.18	721942.31	
11000.00	90.00	359.74	8980.00	2047.78	605.07	2087.45	0.00	421781.18	721941.85	
11100.00	90.00	359.74	8980.00	2147.78	604.62	2187.13	0.00	421881.18	721941.40	
11200.00	90.00	359.74	8980.00	2247.78	604.16	2286.81	0.00	421981.18	721940.94	
11300.00	90.00	359.74	8980.00	2347.78	603.70	2386.49	0.00	422081.18	721940.48	
11400.00	90.00	359.74	8980.00	2447.78	603.24	2486.18	0.00	422181.18	721940.02	
11500.00	90.00	359.74	8980.00	2547.78	602.79	2585.86	0.00	422281.18	721939.57	
11600.00	90.00	359.74	8980.00	2647.78	602.33	2685.54	0.00	422381.18	721939.11	
11700.00	90.00	359.74	8980.00	2747.78	601.87	2785.22	0.00	422481.18	721938.65	
11800.00	90.00	359.74	8980.00	2847.77	601.41	2884.90	0.00	422581.17	721938.19	
11900.00	90.00	359.74	8980.00	2947.77	600.95	2984.59	0.00	422681.17	721937.73	
12000.00	90.00	359.74	8980.00	3047.77	600.50	3084.27	0.00	422781.17	721937.28	
12100.00	90.00	359.74	8980.00	3147.77	600.04	3183.95	0.00	422881.17	721936.82	
12200.00	90.00	359.74	8980.00	3247.77	599.58	3283.63	0.00	422981.17	721936.36	
12300.00	90.00	359.74	8980.00	3347.77	599.12	3383.31	0.00	423081.17	721935.90	
12400.00	90.00	359.74	8980.00	3447.77	598.67	3483.00	0.00	423181.17	721935.45	
12500.00	90.00	359.74	8980.00	3547.77	598.21	3582.68	0.00	423281.17	721934.99	
12600.00	90.00	359.74	8980.00	3647.77	597.75	3682.36	0.00	423381.17	721934.53	
12700.00	90.00	359.74	8980.00	3747.76	597.29	3782.04	0.00	423481.16	721934.07	
12800.00	90.00	359.74	8980.00	3847.76	596.84	3881.73	0.00	423581.16	721933.62	
12900.00	90.00	359.74	8980.00	3947.76	596.38	3981.41	0.00	423681.16	721933.16	
13000.00	90.00	359.74	8980.00	4047.76	595.92	4081.09	0.00	423781.16	721932.70	
13100.00	90.00	359.74	8980.00	4147.76	595.46	4180.77	0.00	423881.16	721932.24	
13200.00	90.00	359.74	8980.00	4247.76	595.00	4280.45	0.00	423981.16	721931.78	
13300.00	90.00	359.74	8980.00	4347.76	594.55	4380.14	0.00	424081.16	721931.33	
13400.00	90.00	359.74	8980.00	4447.76	594.09	4479.82	0.00	424181.16	721930.87	
13500.00	90.00	359.74	8980.00	4547.76	593.63	4579.50	0.00	424281.16	721930.41	
13600.00	90.00	359.74	8980.00	4647.76	593.17	4679.18	0.00	424381.16	721929.95	
13700.00	90.00	359.74	8980.00	4747.75	592.72	4778.86	0.00	424481.15	721929.50	
13800.00	90.00	359.74	8980.00	4847.75	592.26	4878.55	0.00	424581.15	721929.04	
13900.00	90.00	359.74	8980.00	4947.75	591.80	4978.23	0.00	424681.15	721928.58	
14000.00	90.00	359.74	8980.00	5047.75	591.34	5077.91	0.00	424781.15	721928.12	
14100.00	90.00	359.74	8980.00	5147.75	590.89	5177.59	0.00	424881.15	721927.67	
14200.00	90.00	359.74	8979.99	5247.75	590.43	5277.27	0.00	424981.15	721927.21	
14300.00	90.00	359.74	8979.99	5347.75	589.97	5376.96	0.00	425081.15	721926.75	
14400.00	90.00	359.74	8979.99	5447.75	589.51	5476.64	0.00	425181.15	721926.29	
14500.00	90.00	359.74	8979.99	5547.75	589.06	5576.32	0.00	425281.15	721925.84	



Weatherford International Ltd.

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit #137H
Well: Cotton Draw Unit #137H
Wellpath: 1

Date: 11/1/2010 Time: 12:34:37 Page: 3
Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0
Section (VS) Reference: Well (0.00N,0.00E,4.31Azi)
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
14600.00	90.00	359.74	8979.99	5647.74	588.60	5676.00	0.00	425381.14	721925.38	
14700.00	90.00	359.74	8979.99	5747.74	588.14	5775.68	0.00	425481.14	721924.92	
14800.00	90.00	359.74	8979.99	5847.74	587.68	5875.37	0.00	425581.14	721924.46	
14900.00	90.00	359.74	8979.99	5947.74	587.22	5975.05	0.00	425681.14	721924.00	
15000.00	90.00	359.74	8979.99	6047.74	586.77	6074.73	0.00	425781.14	721923.55	
15100.00	90.00	359.74	8979.99	6147.74	586.31	6174.41	0.00	425881.14	721923.09	
15200.00	90.00	359.74	8979.99	6247.74	585.85	6274.09	0.00	425981.14	721922.63	
15300.00	90.00	359.74	8979.99	6347.74	585.39	6373.78	0.00	426081.14	721922.17	
15400.00	90.00	359.74	8979.99	6447.74	584.94	6473.46	0.00	426181.14	721921.72	
15500.00	90.00	359.74	8979.99	6547.74	584.48	6573.14	0.00	426281.14	721921.26	
15600.00	90.00	359.74	8979.99	6647.73	584.02	6672.82	0.00	426381.13	721920.80	
15700.00	90.00	359.74	8979.99	6747.73	583.56	6772.50	0.00	426481.13	721920.34	
15800.00	90.00	359.74	8979.99	6847.73	583.11	6872.19	0.00	426581.13	721919.89	
15900.00	90.00	359.74	8979.99	6947.73	582.65	6971.87	0.00	426681.13	721919.43	
16000.00	90.00	359.74	8979.99	7047.73	582.19	7071.55	0.00	426781.13	721918.97	
16100.00	90.00	359.74	8979.99	7147.73	581.73	7171.23	0.00	426881.13	721918.51	
16200.00	90.00	359.74	8979.99	7247.73	581.27	7270.91	0.00	426981.13	721918.05	
16300.00	90.00	359.74	8979.99	7347.73	580.82	7370.60	0.00	427081.13	721917.60	
16400.00	90.00	359.74	8979.99	7447.73	580.36	7470.28	0.00	427181.13	721917.14	
16500.00	90.00	359.74	8979.99	7547.72	579.90	7569.96	0.00	427281.12	721916.68	
16600.00	90.00	359.74	8979.99	7647.72	579.44	7669.64	0.00	427381.12	721916.22	
16641.91	90.00	359.74	8980.00	7689.63	579.26	7711.42	0.00	427423.03	721916.04	Pbhl

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			8980.00	7689.63	579.26	427423.03	721916.04	32 10 25.375 N	103 44 58.940 W
Heal Tgt			8980.00	595.48	611.72	420328.88	721948.50	32 9 15.172 N	103 44 59.010 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
8000.56	8000.56	Kop
8448.57	8412.50	Build/Turn
9547.68	8980.00	Lp
16641.91	8980.00	Pbhl

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy Date: 11/1/2010 Time: 11:27:45 Page: 1
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Reference Well: Cotton Draw Unit #137H Vertical (TVD) Reference: SITE 3445.0
Reference Wellpath: 1 Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria
Interpolation Method: MD Interval: 30.00 ft
Depth Range: 0.00 to 16641.91 ft
Maximum Radius: 10000.00 ft

Reference: Plan: Plan #1
Error Model: ISCWSA Ellipse
Scan Method: Closest Approach 3D
Error Surface: Ellipse

Plan: Plan #1 Date Composed: 10/29/2010
Version: 1
Principal: Yes Tied-to: From Surface

Summary

Site	Offset Wellpath Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Cotton Draw Unit #13	Cotton Draw Unit #131 V0	Plan: Plan #1 V1	8010.00	8011.00	50.05	14.32	1.40	Level 3

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	1.00	1.00	0.00	0.00	270.37	0.32	-49.98	49.98	49.98	59298.43	
30.00	30.00	31.00	31.00	0.01	0.03	270.37	0.32	-49.98	49.98	49.95	1574.29	
60.00	60.00	61.00	61.00	0.04	0.05	270.37	0.32	-49.98	49.98	49.89	550.76	
90.00	90.00	91.00	91.00	0.07	0.08	270.37	0.32	-49.98	49.98	49.83	333.76	
120.00	120.00	121.00	121.00	0.13	0.13	270.37	0.32	-49.98	49.98	49.72	191.70	
150.00	150.00	151.00	151.00	0.20	0.20	270.37	0.32	-49.98	49.98	49.59	126.35	
180.00	180.00	181.00	181.00	0.26	0.27	270.37	0.32	-49.98	49.98	49.45	94.22	
210.00	210.00	211.00	211.00	0.33	0.33	270.37	0.32	-49.98	49.98	49.32	75.12	
240.00	240.00	241.00	241.00	0.40	0.40	270.37	0.32	-49.98	49.98	49.18	62.46	
270.00	270.00	271.00	271.00	0.47	0.47	270.37	0.32	-49.98	49.98	49.05	53.45	
300.00	300.00	301.00	301.00	0.53	0.54	270.37	0.32	-49.98	49.98	48.91	46.72	
330.00	330.00	331.00	331.00	0.60	0.60	270.37	0.32	-49.98	49.98	48.78	41.49	
360.00	360.00	361.00	361.00	0.67	0.67	270.37	0.32	-49.98	49.98	48.64	37.31	
390.00	390.00	391.00	391.00	0.74	0.74	270.37	0.32	-49.98	49.98	48.51	33.90	
420.00	420.00	421.00	421.00	0.80	0.81	270.37	0.32	-49.98	49.98	48.37	31.06	
450.00	450.00	451.00	451.00	0.87	0.87	270.37	0.32	-49.98	49.98	48.24	28.66	
480.00	480.00	481.00	481.00	0.94	0.94	270.37	0.32	-49.98	49.98	48.10	26.60	
510.00	510.00	511.00	511.00	1.01	1.01	270.37	0.32	-49.98	49.98	47.97	24.82	
540.00	540.00	541.00	541.00	1.07	1.08	270.37	0.32	-49.98	49.98	47.83	23.26	
570.00	570.00	571.00	571.00	1.14	1.14	270.37	0.32	-49.98	49.98	47.70	21.89	
600.00	600.00	601.00	601.00	1.21	1.21	270.37	0.32	-49.98	49.98	47.56	20.67	
630.00	630.00	631.00	631.00	1.28	1.28	270.37	0.32	-49.98	49.98	47.43	19.57	
660.00	660.00	661.00	661.00	1.34	1.35	270.37	0.32	-49.98	49.98	47.29	18.59	
690.00	690.00	691.00	691.00	1.41	1.41	270.37	0.32	-49.98	49.98	47.16	17.70	
720.00	720.00	721.00	721.00	1.48	1.48	270.37	0.32	-49.98	49.98	47.02	16.90	
750.00	750.00	751.00	751.00	1.55	1.55	270.37	0.32	-49.98	49.98	46.89	16.16	
780.00	780.00	781.00	781.00	1.61	1.61	270.37	0.32	-49.98	49.98	46.75	15.49	
810.00	810.00	811.00	811.00	1.68	1.68	270.37	0.32	-49.98	49.98	46.62	14.86	
840.00	840.00	841.00	841.00	1.75	1.75	270.37	0.32	-49.98	49.98	46.48	14.29	
870.00	870.00	871.00	871.00	1.81	1.82	270.37	0.32	-49.98	49.98	46.35	13.76	
900.00	900.00	901.00	901.00	1.88	1.88	270.37	0.32	-49.98	49.98	46.21	13.27	
930.00	930.00	931.00	931.00	1.95	1.95	270.37	0.32	-49.98	49.98	46.08	12.81	
960.00	960.00	961.00	961.00	2.02	2.02	270.37	0.32	-49.98	49.98	45.94	12.38	
990.00	990.00	991.00	991.00	2.08	2.09	270.37	0.32	-49.98	49.98	45.81	11.98	
1020.00	1020.00	1021.00	1021.00	2.15	2.15	270.37	0.32	-49.98	49.98	45.67	11.61	
1050.00	1050.00	1051.00	1051.00	2.22	2.22	270.37	0.32	-49.98	49.98	45.54	11.25	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010

Time: 11:27:45

Page: 2

Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0

Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
1080.00	1080.00	1081.00	1081.00	2.29	2.29	270.37	0.32	-49.98	49.98	45.40	10.92	
1110.00	1110.00	1111.00	1111.00	2.35	2.36	270.37	0.32	-49.98	49.98	45.27	10.61	
1140.00	1140.00	1141.00	1141.00	2.42	2.42	270.37	0.32	-49.98	49.98	45.14	10.31	
1170.00	1170.00	1171.00	1171.00	2.49	2.49	270.37	0.32	-49.98	49.98	45.00	10.03	
1200.00	1200.00	1201.00	1201.00	2.56	2.56	270.37	0.32	-49.98	49.98	44.87	9.77	
1230.00	1230.00	1231.00	1231.00	2.62	2.63	270.37	0.32	-49.98	49.98	44.73	9.52	
1260.00	1260.00	1261.00	1261.00	2.69	2.69	270.37	0.32	-49.98	49.98	44.60	9.28	
1290.00	1290.00	1291.00	1291.00	2.76	2.76	270.37	0.32	-49.98	49.98	44.46	9.05	
1320.00	1320.00	1321.00	1321.00	2.83	2.83	270.37	0.32	-49.98	49.98	44.33	8.84	
1350.00	1350.00	1351.00	1351.00	2.89	2.90	270.37	0.32	-49.98	49.98	44.19	8.63	
1380.00	1380.00	1381.00	1381.00	2.96	2.96	270.37	0.32	-49.98	49.98	44.06	8.44	
1410.00	1410.00	1411.00	1411.00	3.03	3.03	270.37	0.32	-49.98	49.98	43.92	8.25	
1440.00	1440.00	1441.00	1441.00	3.10	3.10	270.37	0.32	-49.98	49.98	43.79	8.07	
1470.00	1470.00	1471.00	1471.00	3.16	3.17	270.37	0.32	-49.98	49.98	43.65	7.90	
1500.00	1500.00	1501.00	1501.00	3.23	3.23	270.37	0.32	-49.98	49.98	43.52	7.73	
1530.00	1530.00	1531.00	1531.00	3.30	3.30	270.37	0.32	-49.98	49.98	43.38	7.57	
1560.00	1560.00	1561.00	1561.00	3.37	3.37	270.37	0.32	-49.98	49.98	43.25	7.42	
1590.00	1590.00	1591.00	1591.00	3.43	3.44	270.37	0.32	-49.98	49.98	43.11	7.28	
1620.00	1620.00	1621.00	1621.00	3.50	3.50	270.37	0.32	-49.98	49.98	42.98	7.14	
1650.00	1650.00	1651.00	1651.00	3.57	3.57	270.37	0.32	-49.98	49.98	42.84	7.00	
1680.00	1680.00	1681.00	1681.00	3.64	3.64	270.37	0.32	-49.98	49.98	42.71	6.87	
1710.00	1710.00	1711.00	1711.00	3.70	3.71	270.37	0.32	-49.98	49.98	42.57	6.75	
1740.00	1740.00	1741.00	1741.00	3.77	3.77	270.37	0.32	-49.98	49.98	42.44	6.63	
1770.00	1770.00	1771.00	1771.00	3.84	3.84	270.37	0.32	-49.98	49.98	42.30	6.51	
1800.00	1800.00	1801.00	1801.00	3.91	3.91	270.37	0.32	-49.98	49.98	42.17	6.40	
1830.00	1830.00	1831.00	1831.00	3.97	3.97	270.37	0.32	-49.98	49.98	42.03	6.29	
1860.00	1860.00	1861.00	1861.00	4.04	4.04	270.37	0.32	-49.98	49.98	41.90	6.18	
1890.00	1890.00	1891.00	1891.00	4.11	4.11	270.37	0.32	-49.98	49.98	41.76	6.08	
1920.00	1920.00	1921.00	1921.00	4.18	4.18	270.37	0.32	-49.98	49.98	41.63	5.98	
1950.00	1950.00	1951.00	1951.00	4.24	4.24	270.37	0.32	-49.98	49.98	41.49	5.89	
1980.00	1980.00	1981.00	1981.00	4.31	4.31	270.37	0.32	-49.98	49.98	41.36	5.80	
2010.00	2010.00	2011.00	2011.00	4.38	4.38	270.37	0.32	-49.98	49.98	41.22	5.71	
2040.00	2040.00	2041.00	2041.00	4.44	4.45	270.37	0.32	-49.98	49.98	41.09	5.62	
2070.00	2070.00	2071.00	2071.00	4.51	4.51	270.37	0.32	-49.98	49.98	40.95	5.54	
2100.00	2100.00	2101.00	2101.00	4.58	4.58	270.37	0.32	-49.98	49.98	40.82	5.46	
2130.00	2130.00	2131.00	2131.00	4.65	4.65	270.37	0.32	-49.98	49.98	40.68	5.38	
2160.00	2160.00	2161.00	2161.00	4.71	4.72	270.37	0.32	-49.98	49.98	40.55	5.30	
2190.00	2190.00	2191.00	2191.00	4.78	4.78	270.37	0.32	-49.98	49.98	40.41	5.22	
2220.00	2220.00	2221.00	2221.00	4.85	4.85	270.37	0.32	-49.98	49.98	40.28	5.15	
2250.00	2250.00	2251.00	2251.00	4.92	4.92	270.37	0.32	-49.98	49.98	40.15	5.08	
2280.00	2280.00	2281.00	2281.00	4.98	4.99	270.37	0.32	-49.98	49.98	40.01	5.01	
2310.00	2310.00	2311.00	2311.00	5.05	5.05	270.37	0.32	-49.98	49.98	39.88	4.95	
2340.00	2340.00	2341.00	2341.00	5.12	5.12	270.37	0.32	-49.98	49.98	39.74	4.88	
2370.00	2370.00	2371.00	2371.00	5.19	5.19	270.37	0.32	-49.98	49.98	39.61	4.82	
2400.00	2400.00	2401.00	2401.00	5.25	5.26	270.37	0.32	-49.98	49.98	39.47	4.76	
2430.00	2430.00	2431.00	2431.00	5.32	5.32	270.37	0.32	-49.98	49.98	39.34	4.70	
2460.00	2460.00	2461.00	2461.00	5.39	5.39	270.37	0.32	-49.98	49.98	39.20	4.64	
2490.00	2490.00	2491.00	2491.00	5.46	5.46	270.37	0.32	-49.98	49.98	39.07	4.58	
2520.00	2520.00	2521.00	2521.00	5.52	5.53	270.37	0.32	-49.98	49.98	38.93	4.52	
2550.00	2550.00	2551.00	2551.00	5.59	5.59	270.37	0.32	-49.98	49.98	38.80	4.47	
2580.00	2580.00	2581.00	2581.00	5.66	5.66	270.37	0.32	-49.98	49.98	38.66	4.42	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010

Time: 11:27:45

Page: 3

Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0

Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
2610.00	2610.00	2611.00	2611.00	5.73	5.73	270.37	0.32	-49.98	49.98	38.53	4.36	
2640.00	2640.00	2641.00	2641.00	5.79	5.80	270.37	0.32	-49.98	49.98	38.39	4.31	
2670.00	2670.00	2671.00	2671.00	5.86	5.86	270.37	0.32	-49.98	49.98	38.26	4.26	
2700.00	2700.00	2701.00	2701.00	5.93	5.93	270.37	0.32	-49.98	49.98	38.12	4.21	
2730.00	2730.00	2731.00	2731.00	6.00	6.00	270.37	0.32	-49.98	49.98	37.99	4.17	
2760.00	2760.00	2761.00	2761.00	6.06	6.07	270.37	0.32	-49.98	49.98	37.85	4.12	
2790.00	2790.00	2791.00	2791.00	6.13	6.13	270.37	0.32	-49.98	49.98	37.72	4.08	
2820.00	2820.00	2821.00	2821.00	6.20	6.20	270.37	0.32	-49.98	49.98	37.58	4.03	
2850.00	2850.00	2851.00	2851.00	6.27	6.27	270.37	0.32	-49.98	49.98	37.45	3.99	
2880.00	2880.00	2881.00	2881.00	6.33	6.34	270.37	0.32	-49.98	49.98	37.31	3.95	
2910.00	2910.00	2911.00	2911.00	6.40	6.40	270.37	0.32	-49.98	49.98	37.18	3.90	
2940.00	2940.00	2941.00	2941.00	6.47	6.47	270.37	0.32	-49.98	49.98	37.04	3.86	
2970.00	2970.00	2971.00	2971.00	6.54	6.54	270.37	0.32	-49.98	49.98	36.91	3.82	
3000.00	3000.00	3001.00	3001.00	6.60	6.60	270.37	0.32	-49.98	49.98	36.77	3.78	
3030.00	3030.00	3031.00	3031.00	6.67	6.67	270.37	0.32	-49.98	49.98	36.64	3.75	
3060.00	3060.00	3061.00	3061.00	6.74	6.74	270.37	0.32	-49.98	49.98	36.50	3.71	
3090.00	3090.00	3091.00	3091.00	6.80	6.81	270.37	0.32	-49.98	49.98	36.37	3.67	
3120.00	3120.00	3121.00	3121.00	6.87	6.87	270.37	0.32	-49.98	49.98	36.23	3.64	
3150.00	3150.00	3151.00	3151.00	6.94	6.94	270.37	0.32	-49.98	49.98	36.10	3.60	
3180.00	3180.00	3181.00	3181.00	7.01	7.01	270.37	0.32	-49.98	49.98	35.96	3.57	
3210.00	3210.00	3211.00	3211.00	7.07	7.08	270.37	0.32	-49.98	49.98	35.83	3.53	
3240.00	3240.00	3241.00	3241.00	7.14	7.14	270.37	0.32	-49.98	49.98	35.69	3.50	
3270.00	3270.00	3271.00	3271.00	7.21	7.21	270.37	0.32	-49.98	49.98	35.56	3.47	
3300.00	3300.00	3301.00	3301.00	7.28	7.28	270.37	0.32	-49.98	49.98	35.43	3.43	
3330.00	3330.00	3331.00	3331.00	7.34	7.35	270.37	0.32	-49.98	49.98	35.29	3.40	
3360.00	3360.00	3361.00	3361.00	7.41	7.41	270.37	0.32	-49.98	49.98	35.16	3.37	
3390.00	3390.00	3391.00	3391.00	7.48	7.48	270.37	0.32	-49.98	49.98	35.02	3.34	
3420.00	3420.00	3421.00	3421.00	7.55	7.55	270.37	0.32	-49.98	49.98	34.89	3.31	
3450.00	3450.00	3451.00	3451.00	7.61	7.62	270.37	0.32	-49.98	49.98	34.75	3.28	
3480.00	3480.00	3481.00	3481.00	7.68	7.68	270.37	0.32	-49.98	49.98	34.62	3.25	
3510.00	3510.00	3511.00	3511.00	7.75	7.75	270.37	0.32	-49.98	49.98	34.48	3.22	
3540.00	3540.00	3541.00	3541.00	7.82	7.82	270.37	0.32	-49.98	49.98	34.35	3.20	
3570.00	3570.00	3571.00	3571.00	7.88	7.89	270.37	0.32	-49.98	49.98	34.21	3.17	
3600.00	3600.00	3601.00	3601.00	7.95	7.95	270.37	0.32	-49.98	49.98	34.08	3.14	
3630.00	3630.00	3631.00	3631.00	8.02	8.02	270.37	0.32	-49.98	49.98	33.94	3.12	
3660.00	3660.00	3661.00	3661.00	8.09	8.09	270.37	0.32	-49.98	49.98	33.81	3.09	
3690.00	3690.00	3691.00	3691.00	8.15	8.16	270.37	0.32	-49.98	49.98	33.67	3.06	
3720.00	3720.00	3721.00	3721.00	8.22	8.22	270.37	0.32	-49.98	49.98	33.54	3.04	
3750.00	3750.00	3751.00	3751.00	8.29	8.29	270.37	0.32	-49.98	49.98	33.40	3.01	
3780.00	3780.00	3781.00	3781.00	8.36	8.36	270.37	0.32	-49.98	49.98	33.27	2.99	
3810.00	3810.00	3811.00	3811.00	8.42	8.43	270.37	0.32	-49.98	49.98	33.13	2.97	
3840.00	3840.00	3841.00	3841.00	8.49	8.49	270.37	0.32	-49.98	49.98	33.00	2.94	
3870.00	3870.00	3871.00	3871.00	8.56	8.56	270.37	0.32	-49.98	49.98	32.86	2.92	
3900.00	3900.00	3901.00	3901.00	8.63	8.63	270.37	0.32	-49.98	49.98	32.73	2.90	
3930.00	3930.00	3931.00	3931.00	8.69	8.70	270.37	0.32	-49.98	49.98	32.59	2.87	
3960.00	3960.00	3961.00	3961.00	8.76	8.76	270.37	0.32	-49.98	49.98	32.46	2.85	
3990.00	3990.00	3991.00	3991.00	8.83	8.83	270.37	0.32	-49.98	49.98	32.32	2.83	
4020.00	4020.00	4021.00	4021.00	8.90	8.90	270.37	0.32	-49.98	49.98	32.19	2.81	
4050.00	4050.00	4051.00	4051.00	8.96	8.96	270.37	0.32	-49.98	49.98	32.05	2.79	
4080.00	4080.00	4081.00	4081.00	9.03	9.03	270.37	0.32	-49.98	49.98	31.92	2.77	
4110.00	4110.00	4111.00	4111.00	9.10	9.10	270.37	0.32	-49.98	49.98	31.78	2.75	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010

Time: 11:27:45

Page: 4

Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0

Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
4140.00	4140.00	4141.00	4141.00	9.16	9.17	270.37	0.32	-49.98	49.98	31.65	2.73	
4170.00	4170.00	4171.00	4171.00	9.23	9.23	270.37	0.32	-49.98	49.98	31.51	2.71	
4200.00	4200.00	4201.00	4201.00	9.30	9.30	270.37	0.32	-49.98	49.98	31.38	2.69	
4230.00	4230.00	4231.00	4231.00	9.37	9.37	270.37	0.32	-49.98	49.98	31.24	2.67	
4260.00	4260.00	4261.00	4261.00	9.43	9.44	270.37	0.32	-49.98	49.98	31.11	2.65	
4290.00	4290.00	4291.00	4291.00	9.50	9.50	270.37	0.32	-49.98	49.98	30.97	2.63	
4320.00	4320.00	4321.00	4321.00	9.57	9.57	270.37	0.32	-49.98	49.98	30.84	2.61	
4350.00	4350.00	4351.00	4351.00	9.64	9.64	270.37	0.32	-49.98	49.98	30.71	2.59	
4380.00	4380.00	4381.00	4381.00	9.70	9.71	270.37	0.32	-49.98	49.98	30.57	2.57	
4410.00	4410.00	4411.00	4411.00	9.77	9.77	270.37	0.32	-49.98	49.98	30.44	2.56	
4440.00	4440.00	4441.00	4441.00	9.84	9.84	270.37	0.32	-49.98	49.98	30.30	2.54	
4470.00	4470.00	4471.00	4471.00	9.91	9.91	270.37	0.32	-49.98	49.98	30.17	2.52	
4500.00	4500.00	4501.00	4501.00	9.97	9.98	270.37	0.32	-49.98	49.98	30.03	2.51	
4530.00	4530.00	4531.00	4531.00	10.04	10.04	270.37	0.32	-49.98	49.98	29.90	2.49	
4560.00	4560.00	4561.00	4561.00	10.11	10.11	270.37	0.32	-49.98	49.98	29.76	2.47	
4590.00	4590.00	4591.00	4591.00	10.18	10.18	270.37	0.32	-49.98	49.98	29.63	2.46	
4620.00	4620.00	4621.00	4621.00	10.24	10.25	270.37	0.32	-49.98	49.98	29.49	2.44	
4650.00	4650.00	4651.00	4651.00	10.31	10.31	270.37	0.32	-49.98	49.98	29.36	2.42	
4680.00	4680.00	4681.00	4681.00	10.38	10.38	270.37	0.32	-49.98	49.98	29.22	2.41	
4710.00	4710.00	4711.00	4711.00	10.45	10.45	270.37	0.32	-49.98	49.98	29.09	2.39	
4740.00	4740.00	4741.00	4741.00	10.51	10.52	270.37	0.32	-49.98	49.98	28.95	2.38	
4770.00	4770.00	4771.00	4771.00	10.58	10.58	270.37	0.32	-49.98	49.98	28.82	2.36	
4800.00	4800.00	4801.00	4801.00	10.65	10.65	270.37	0.32	-49.98	49.98	28.68	2.35	
4830.00	4830.00	4831.00	4831.00	10.72	10.72	270.37	0.32	-49.98	49.98	28.55	2.33	
4860.00	4860.00	4861.00	4861.00	10.78	10.79	270.37	0.32	-49.98	49.98	28.41	2.32	
4890.00	4890.00	4891.00	4891.00	10.85	10.85	270.37	0.32	-49.98	49.98	28.28	2.30	
4920.00	4920.00	4921.00	4921.00	10.92	10.92	270.37	0.32	-49.98	49.98	28.14	2.29	
4950.00	4950.00	4951.00	4951.00	10.99	10.99	270.37	0.32	-49.98	49.98	28.01	2.27	
4980.00	4980.00	4981.00	4981.00	11.05	11.06	270.37	0.32	-49.98	49.98	27.87	2.26	
5010.00	5010.00	5011.00	5011.00	11.12	11.12	270.37	0.32	-49.98	49.98	27.74	2.25	
5040.00	5040.00	5041.00	5041.00	11.19	11.19	270.37	0.32	-49.98	49.98	27.60	2.23	
5070.00	5070.00	5071.00	5071.00	11.26	11.26	270.37	0.32	-49.98	49.98	27.47	2.22	
5100.00	5100.00	5101.00	5101.00	11.32	11.32	270.37	0.32	-49.98	49.98	27.33	2.21	
5130.00	5130.00	5131.00	5131.00	11.39	11.39	270.37	0.32	-49.98	49.98	27.20	2.19	
5160.00	5160.00	5161.00	5161.00	11.46	11.46	270.37	0.32	-49.98	49.98	27.06	2.18	
5190.00	5190.00	5191.00	5191.00	11.52	11.53	270.37	0.32	-49.98	49.98	26.93	2.17	
5220.00	5220.00	5221.00	5221.00	11.59	11.59	270.37	0.32	-49.98	49.98	26.79	2.16	
5250.00	5250.00	5251.00	5251.00	11.66	11.66	270.37	0.32	-49.98	49.98	26.66	2.14	
5280.00	5280.00	5281.00	5281.00	11.73	11.73	270.37	0.32	-49.98	49.98	26.52	2.13	
5310.00	5310.00	5311.00	5311.00	11.79	11.80	270.37	0.32	-49.98	49.98	26.39	2.12	
5340.00	5340.00	5341.00	5341.00	11.86	11.86	270.37	0.32	-49.98	49.98	26.25	2.11	
5370.00	5370.00	5371.00	5371.00	11.93	11.93	270.37	0.32	-49.98	49.98	26.12	2.09	
5400.00	5400.00	5401.00	5401.00	12.00	12.00	270.37	0.32	-49.98	49.98	25.99	2.08	
5430.00	5430.00	5431.00	5431.00	12.06	12.07	270.37	0.32	-49.98	49.98	25.85	2.07	
5460.00	5460.00	5461.00	5461.00	12.13	12.13	270.37	0.32	-49.98	49.98	25.72	2.06	
5490.00	5490.00	5491.00	5491.00	12.20	12.20	270.37	0.32	-49.98	49.98	25.58	2.05	
5520.00	5520.00	5521.00	5521.00	12.27	12.27	270.37	0.32	-49.98	49.98	25.45	2.04	
5550.00	5550.00	5551.00	5551.00	12.33	12.34	270.37	0.32	-49.98	49.98	25.31	2.03	
5580.00	5580.00	5581.00	5581.00	12.40	12.40	270.37	0.32	-49.98	49.98	25.18	2.01	
5610.00	5610.00	5611.00	5611.00	12.47	12.47	270.37	0.32	-49.98	49.98	25.04	2.00	
5640.00	5640.00	5641.00	5641.00	12.54	12.54	270.37	0.32	-49.98	49.98	24.91	1.99	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010

Time: 11:27:45

Page: 5

Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0

Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
5670.00	5670.00	5671.00	5671.00	12.60	12.61	270.37	0.32	-49.98	49.98	24.77	1.98	
5700.00	5700.00	5701.00	5701.00	12.67	12.67	270.37	0.32	-49.98	49.98	24.64	1.97	
5730.00	5730.00	5731.00	5731.00	12.74	12.74	270.37	0.32	-49.98	49.98	24.50	1.96	
5760.00	5760.00	5761.00	5761.00	12.81	12.81	270.37	0.32	-49.98	49.98	24.37	1.95	
5790.00	5790.00	5791.00	5791.00	12.87	12.88	270.37	0.32	-49.98	49.98	24.23	1.94	
5820.00	5820.00	5821.00	5821.00	12.94	12.94	270.37	0.32	-49.98	49.98	24.10	1.93	
5850.00	5850.00	5851.00	5851.00	13.01	13.01	270.37	0.32	-49.98	49.98	23.96	1.92	
5880.00	5880.00	5881.00	5881.00	13.08	13.08	270.37	0.32	-49.98	49.98	23.83	1.91	
5910.00	5910.00	5911.00	5911.00	13.14	13.15	270.37	0.32	-49.98	49.98	23.69	1.90	
5940.00	5940.00	5941.00	5941.00	13.21	13.21	270.37	0.32	-49.98	49.98	23.56	1.89	
5970.00	5970.00	5971.00	5971.00	13.28	13.28	270.37	0.32	-49.98	49.98	23.42	1.88	
6000.00	6000.00	6001.00	6001.00	13.35	13.35	270.37	0.32	-49.98	49.98	23.29	1.87	
6030.00	6030.00	6031.00	6031.00	13.41	13.42	270.37	0.32	-49.98	49.98	23.15	1.86	
6060.00	6060.00	6061.00	6061.00	13.48	13.48	270.37	0.32	-49.98	49.98	23.02	1.85	
6090.00	6090.00	6091.00	6091.00	13.55	13.55	270.37	0.32	-49.98	49.98	22.88	1.84	
6120.00	6120.00	6121.00	6121.00	13.62	13.62	270.37	0.32	-49.98	49.98	22.75	1.84	
6150.00	6150.00	6151.00	6151.00	13.68	13.68	270.37	0.32	-49.98	49.98	22.61	1.83	
6180.00	6180.00	6181.00	6181.00	13.75	13.75	270.37	0.32	-49.98	49.98	22.48	1.82	
6210.00	6210.00	6211.00	6211.00	13.82	13.82	270.37	0.32	-49.98	49.98	22.34	1.81	
6240.00	6240.00	6241.00	6241.00	13.88	13.89	270.37	0.32	-49.98	49.98	22.21	1.80	
6270.00	6270.00	6271.00	6271.00	13.95	13.95	270.37	0.32	-49.98	49.98	22.07	1.79	
6300.00	6300.00	6301.00	6301.00	14.02	14.02	270.37	0.32	-49.98	49.98	21.94	1.78	
6330.00	6330.00	6331.00	6331.00	14.09	14.09	270.37	0.32	-49.98	49.98	21.80	1.77	
6360.00	6360.00	6361.00	6361.00	14.15	14.16	270.37	0.32	-49.98	49.98	21.67	1.77	
6390.00	6390.00	6391.00	6391.00	14.22	14.22	270.37	0.32	-49.98	49.98	21.53	1.76	
6420.00	6420.00	6421.00	6421.00	14.29	14.29	270.37	0.32	-49.98	49.98	21.40	1.75	
6450.00	6450.00	6451.00	6451.00	14.36	14.36	270.37	0.32	-49.98	49.98	21.26	1.74	
6480.00	6480.00	6481.00	6481.00	14.42	14.43	270.37	0.32	-49.98	49.98	21.13	1.73	
6510.00	6510.00	6511.00	6511.00	14.49	14.49	270.37	0.32	-49.98	49.98	21.00	1.72	
6540.00	6540.00	6541.00	6541.00	14.56	14.56	270.37	0.32	-49.98	49.98	20.86	1.72	
6570.00	6570.00	6571.00	6571.00	14.63	14.63	270.37	0.32	-49.98	49.98	20.73	1.71	
6600.00	6600.00	6601.00	6601.00	14.69	14.70	270.37	0.32	-49.98	49.98	20.59	1.70	
6630.00	6630.00	6631.00	6631.00	14.76	14.76	270.37	0.32	-49.98	49.98	20.46	1.69	
6660.00	6660.00	6661.00	6661.00	14.83	14.83	270.37	0.32	-49.98	49.98	20.32	1.69	
6690.00	6690.00	6691.00	6691.00	14.90	14.90	270.37	0.32	-49.98	49.98	20.19	1.68	
6720.00	6720.00	6721.00	6721.00	14.96	14.97	270.37	0.32	-49.98	49.98	20.05	1.67	
6750.00	6750.00	6751.00	6751.00	15.03	15.03	270.37	0.32	-49.98	49.98	19.92	1.66	
6780.00	6780.00	6781.00	6781.00	15.10	15.10	270.37	0.32	-49.98	49.98	19.78	1.66	
6810.00	6810.00	6811.00	6811.00	15.17	15.17	270.37	0.32	-49.98	49.98	19.65	1.65	
6840.00	6840.00	6841.00	6841.00	15.23	15.24	270.37	0.32	-49.98	49.98	19.51	1.64	
6870.00	6870.00	6871.00	6871.00	15.30	15.30	270.37	0.32	-49.98	49.98	19.38	1.63	
6900.00	6900.00	6901.00	6901.00	15.37	15.37	270.37	0.32	-49.98	49.98	19.24	1.63	
6930.00	6930.00	6931.00	6931.00	15.44	15.44	270.37	0.32	-49.98	49.98	19.11	1.62	
6960.00	6960.00	6961.00	6961.00	15.50	15.51	270.37	0.32	-49.98	49.98	18.97	1.61	
6990.00	6990.00	6991.00	6991.00	15.57	15.57	270.37	0.32	-49.98	49.98	18.84	1.60	
7020.00	7020.00	7021.00	7021.00	15.64	15.64	270.37	0.32	-49.98	49.98	18.70	1.60	
7050.00	7050.00	7051.00	7051.00	15.71	15.71	270.37	0.32	-49.98	49.98	18.57	1.59	
7080.00	7080.00	7081.00	7081.00	15.77	15.78	270.37	0.32	-49.98	49.98	18.43	1.58	
7110.00	7110.00	7111.00	7111.00	15.84	15.84	270.37	0.32	-49.98	49.98	18.30	1.58	
7140.00	7140.00	7141.00	7141.00	15.91	15.91	270.37	0.32	-49.98	49.98	18.16	1.57	
7170.00	7170.00	7171.00	7171.00	15.98	15.98	270.37	0.32	-49.98	49.98	18.03	1.56	



Weatherford International Ltd.

Anticollision Report

**Weatherford®**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010

Time: 11:27:45

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Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0

Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
7200.00	7200.00	7201.00	7201.00	16.04	16.04	270.37	0.32	-49.98	49.98	17.89	1.56	
7230.00	7230.00	7231.00	7231.00	16.11	16.11	270.37	0.32	-49.98	49.98	17.76	1.55	
7260.00	7260.00	7261.00	7261.00	16.18	16.18	270.37	0.32	-49.98	49.98	17.62	1.54	
7290.00	7290.00	7291.00	7291.00	16.24	16.25	270.37	0.32	-49.98	49.98	17.49	1.54	
7320.00	7320.00	7321.00	7321.00	16.31	16.31	270.37	0.32	-49.98	49.98	17.35	1.53	
7350.00	7350.00	7351.00	7351.00	16.38	16.38	270.37	0.32	-49.98	49.98	17.22	1.53	
7380.00	7380.00	7381.00	7381.00	16.45	16.45	270.37	0.32	-49.98	49.98	17.08	1.52	
7410.00	7410.00	7411.00	7411.00	16.51	16.52	270.37	0.32	-49.98	49.98	16.95	1.51	
7440.00	7440.00	7441.00	7441.00	16.58	16.58	270.37	0.32	-49.98	49.98	16.81	1.51	
7470.00	7470.00	7471.00	7471.00	16.65	16.65	270.37	0.32	-49.98	49.98	16.68	1.50	
7500.00	7500.00	7501.00	7501.00	16.72	16.72	270.37	0.32	-49.98	49.98	16.54	1.49	Level 3
7530.00	7530.00	7531.00	7531.00	16.78	16.79	270.37	0.32	-49.98	49.98	16.41	1.49	Level 3
7560.00	7560.00	7561.00	7561.00	16.85	16.85	270.37	0.32	-49.98	49.98	16.28	1.48	Level 3
7590.00	7590.00	7591.00	7591.00	16.92	16.92	270.37	0.32	-49.98	49.98	16.14	1.48	Level 3
7620.00	7620.00	7621.00	7621.00	16.99	16.99	270.37	0.32	-49.98	49.98	16.01	1.47	Level 3
7650.00	7650.00	7651.00	7651.00	17.05	17.06	270.37	0.32	-49.98	49.98	15.87	1.47	Level 3
7680.00	7680.00	7681.00	7681.00	17.12	17.12	270.37	0.32	-49.98	49.98	15.74	1.46	Level 3
7710.00	7710.00	7711.00	7711.00	17.19	17.19	270.37	0.32	-49.98	49.98	15.60	1.45	Level 3
7740.00	7740.00	7741.00	7741.00	17.26	17.26	270.37	0.32	-49.98	49.98	15.47	1.45	Level 3
7770.00	7770.00	7771.00	7771.00	17.32	17.33	270.37	0.32	-49.98	49.98	15.33	1.44	Level 3
7800.00	7800.00	7801.00	7801.00	17.39	17.39	270.37	0.32	-49.98	49.98	15.20	1.44	Level 3
7830.00	7830.00	7831.00	7831.00	17.46	17.46	270.37	0.32	-49.98	49.98	15.06	1.43	Level 3
7860.00	7860.00	7861.00	7861.00	17.53	17.53	270.37	0.32	-49.98	49.98	14.93	1.43	Level 3
7890.00	7890.00	7891.00	7891.00	17.59	17.60	270.37	0.32	-49.98	49.98	14.79	1.42	Level 3
7920.00	7920.00	7921.00	7921.00	17.66	17.66	270.37	0.32	-49.98	49.98	14.66	1.41	Level 3
7950.00	7950.00	7951.00	7951.00	17.73	17.73	270.37	0.32	-49.98	49.98	14.52	1.41	Level 3
7980.00	7980.00	7981.00	7981.00	17.80	17.80	270.37	0.32	-49.98	49.98	14.39	1.40	Level 3
8010.00	8010.00	8011.00	8011.00	17.86	17.87	166.78	0.32	-49.98	50.05	14.32	1.40	Level 3
8040.00	8039.97	8040.97	8040.97	17.92	17.93	167.05	0.32	-49.98	51.17	15.34	1.43	Level 3
8070.00	8069.86	8070.86	8070.86	17.98	18.00	167.62	0.32	-49.98	53.67	17.76	1.49	Level 3
8100.00	8099.60	8100.60	8100.60	18.04	18.07	168.39	0.32	-49.98	57.55	21.60	1.60	
8130.00	8129.11	8130.11	8130.11	18.10	18.13	169.29	0.32	-49.98	62.82	26.85	1.75	
8160.00	8158.34	8159.34	8159.34	18.16	18.20	170.22	0.32	-49.98	69.46	33.51	1.93	
8190.00	8187.22	8188.22	8188.22	18.22	18.26	171.12	0.32	-49.98	77.48	41.56	2.16	
8220.00	8215.68	8216.68	8216.68	18.29	18.33	171.96	0.32	-49.98	86.86	51.01	2.42	
8250.00	8243.67	8244.67	8244.67	18.36	18.39	172.72	0.32	-49.98	97.57	61.82	2.73	
8280.00	8271.11	8272.11	8272.11	18.43	18.45	173.38	0.32	-49.98	109.60	73.97	3.08	
8310.00	8297.96	8298.96	8298.96	18.50	18.51	173.96	0.32	-49.98	122.92	87.44	3.46	
8340.00	8324.14	8325.14	8325.14	18.58	18.57	174.46	0.32	-49.98	137.50	102.19	3.89	
8370.00	8349.61	8350.61	8350.61	18.67	18.63	174.88	0.32	-49.98	153.30	118.19	4.37	
8400.00	8374.30	8375.30	8375.30	18.77	18.68	175.24	0.32	-49.98	170.30	135.39	4.88	
8430.00	8398.16	8398.17	8398.17	18.88	18.74	175.63	0.59	-49.98	188.49	153.82	5.44	
8460.00	8421.22	8419.72	8419.69	19.00	18.78	178.33	1.63	-49.98	207.85	173.29	6.01	
8490.00	8444.22	8440.91	8440.81	19.12	18.83	184.32	3.41	-49.97	227.47	192.75	6.55	
8520.00	8467.32	8462.02	8461.76	19.25	18.88	190.09	5.91	-49.96	247.04	212.11	7.07	
8550.00	8490.47	8483.06	8482.55	19.37	18.92	195.66	9.15	-49.95	266.53	231.36	7.58	
8580.00	8513.61	8504.08	8503.20	19.50	18.97	201.03	13.10	-49.94	285.89	250.45	8.07	
8610.00	8536.70	8525.12	8523.71	19.62	19.01	206.19	17.78	-49.93	305.09	269.36	8.54	
8640.00	8559.68	8546.21	8544.09	19.75	19.06	211.15	23.19	-49.92	324.08	288.05	8.99	
8670.00	8582.50	8567.38	8564.35	19.87	19.10	215.90	29.34	-49.90	342.84	306.49	9.43	



Weatherford International Ltd.

Anticollision Report

**Weatherford®**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010

Time: 11:27:45

Page: 7

Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0

Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
8700.00	8605.11	8588.67	8584.49	19.98	19.15	220.42	36.24	-49.88	361.32	324.65	9.85	
8730.00	8627.47	8610.11	8604.51	20.09	19.19	224.71	43.90	-49.86	379.51	342.51	10.26	
8760.00	8649.52	8631.73	8624.41	20.20	19.24	228.77	52.35	-49.83	397.37	360.05	10.65	
8790.00	8671.21	8653.55	8644.17	20.31	19.29	232.58	61.60	-49.81	414.88	377.22	11.02	
8820.00	8692.49	8675.61	8663.80	20.40	19.34	236.17	71.67	-49.78	432.00	394.03	11.38	
8850.00	8713.33	8697.93	8683.26	20.50	19.39	239.52	82.59	-49.75	448.71	410.41	11.72	
8880.00	8733.66	8720.54	8702.55	20.60	19.45	242.64	94.39	-49.71	464.98	426.37	12.04	
8910.00	8753.45	8743.47	8721.64	20.69	19.50	245.54	107.08	-49.68	480.79	441.86	12.35	
8940.00	8772.65	8766.73	8740.50	20.79	19.57	248.23	120.69	-49.64	496.10	456.86	12.64	
8970.00	8791.22	8790.35	8759.10	20.88	19.63	250.71	135.25	-49.60	510.88	471.34	12.92	
9000.00	8809.12	8814.34	8777.39	20.97	19.70	253.00	150.77	-49.55	525.13	485.29	13.18	
9030.00	8826.31	8838.72	8795.33	21.06	19.78	255.11	167.29	-49.51	538.79	498.66	13.43	
9060.00	8842.75	8863.52	8812.86	21.15	19.86	257.03	184.82	-49.46	551.86	511.44	13.65	
9090.00	8858.40	8888.72	8829.93	21.24	19.95	258.80	203.36	-49.40	564.30	523.60	13.86	
9120.00	8873.24	8914.36	8846.47	21.34	20.04	260.40	222.94	-49.35	576.09	535.11	14.06	
9150.00	8887.21	8940.42	8862.42	21.43	20.14	261.86	243.55	-49.29	587.20	545.94	14.23	
9180.00	8900.31	8966.91	8877.69	21.52	20.26	263.17	265.19	-49.23	597.60	556.07	14.39	
9210.00	8912.49	8993.83	8892.22	21.61	20.38	264.35	287.85	-49.17	607.28	565.48	14.53	
9240.00	8923.73	9021.16	8905.92	21.70	20.51	265.41	311.50	-49.10	616.21	574.13	14.64	
9270.00	8934.00	9048.89	8918.70	21.79	20.65	266.34	336.11	-49.03	624.36	582.01	14.74	
9300.00	8943.28	9077.01	8930.49	21.88	20.81	267.16	361.63	-48.96	631.73	589.09	14.82	
9330.00	8951.56	9105.49	8941.19	21.98	20.97	267.87	388.02	-48.88	638.27	595.35	14.87	
9360.00	8958.80	9134.29	8950.73	22.07	21.15	268.48	415.19	-48.80	643.99	600.78	14.90	
9390.00	8965.01	9163.39	8959.03	22.17	21.34	268.98	443.08	-48.73	648.85	605.35	14.92	
9420.00	8970.15	9192.75	8966.03	22.26	21.54	269.39	471.59	-48.64	652.86	609.05	14.90	
9450.00	8974.23	9222.32	8971.66	22.36	21.76	269.70	500.62	-48.56	655.99	611.87	14.87	
9480.00	8977.23	9252.06	8975.87	22.46	21.98	269.92	530.06	-48.48	658.23	613.80	14.82	
9510.00	8979.14	9281.92	8978.63	22.55	22.21	270.05	559.79	-48.39	659.58	614.83	14.74	
9540.00	8979.96	9311.85	8979.91	22.65	22.46	270.09	589.69	-48.31	660.04	614.96	14.64	
9570.00	8980.00	9341.81	8980.00	22.86	22.71	270.09	619.64	-48.23	659.85	614.31	14.49	
9600.00	8980.00	9371.77	8980.00	23.11	22.97	270.09	649.60	-48.14	659.63	613.59	14.33	
9630.00	8980.00	9401.73	8980.00	23.37	23.22	270.09	679.56	-48.06	659.41	612.85	14.16	
9660.00	8980.00	9431.69	8980.00	23.63	23.50	270.09	709.53	-47.98	659.19	612.09	14.00	
9690.00	8980.00	9461.65	8980.00	23.90	23.78	270.09	739.49	-47.90	658.98	611.33	13.83	
9720.00	8980.00	9491.62	8980.00	24.18	24.06	270.09	769.45	-47.83	658.76	610.56	13.67	
9750.00	8980.00	9521.58	8980.00	24.47	24.36	270.09	799.41	-47.75	658.55	609.76	13.50	
9780.00	8980.00	9551.54	8980.00	24.77	24.67	270.09	829.37	-47.68	658.34	608.94	13.33	
9810.00	8980.00	9581.50	8980.00	25.07	24.98	270.09	859.33	-47.61	658.13	608.13	13.16	
9840.00	8980.00	9611.46	8980.00	25.39	25.29	270.09	889.29	-47.54	657.93	607.28	12.99	
9870.00	8980.00	9641.42	8980.00	25.71	25.63	270.09	919.25	-47.47	657.72	606.42	12.82	
9900.00	8980.00	9671.38	8980.00	26.03	25.96	270.09	949.21	-47.41	657.52	605.56	12.66	
9930.00	8980.00	9701.34	8980.00	26.38	26.30	270.09	979.17	-47.35	657.32	604.68	12.49	
9960.00	8980.00	9731.31	8980.00	26.72	26.65	270.09	1009.14	-47.28	657.12	603.78	12.32	
9990.00	8980.00	9761.27	8980.00	27.07	27.01	270.09	1039.10	-47.22	656.92	602.88	12.16	
10020.00	8980.00	9791.23	8980.00	27.43	27.37	270.09	1069.06	-47.16	656.72	601.97	11.99	
10050.00	8980.00	9821.19	8980.00	27.79	27.74	270.09	1099.02	-47.11	656.53	601.04	11.83	
10080.00	8980.00	9851.15	8980.00	28.16	28.12	270.09	1128.98	-47.05	656.34	600.10	11.67	
10110.00	8980.00	9881.11	8980.00	28.53	28.49	270.09	1158.94	-47.00	656.15	599.16	11.51	
10140.00	8980.00	9911.07	8980.00	28.92	28.88	270.09	1188.90	-46.95	655.96	598.20	11.36	
10170.00	8980.00	9941.03	8980.00	29.30	29.27	270.09	1218.87	-46.90	655.77	597.24	11.20	
10200.00	8980.00	9971.00	8980.00	29.69	29.67	270.09	1248.83	-46.85	655.58	596.27	11.05	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy Date: 11/1/2010 Time: 11:27:45 Page: 8
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Reference Well: Cotton Draw Unit #137H Vertical (TVD) Reference: SITE 3445.0
Reference Wellpath: 1 Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
10230.00	8980.00	10000.96	8980.00	30.09	30.06	270.09	1278.79	-46.80	655.40	595.29	10.90	
10260.00	8980.00	10030.92	8980.00	30.49	30.47	270.09	1308.75	-46.76	655.22	594.30	10.76	
10290.00	8980.00	10060.88	8980.00	30.89	30.88	270.09	1338.71	-46.71	655.04	593.31	10.61	
10320.00	8980.00	10090.84	8980.00	31.30	31.29	270.09	1368.67	-46.67	654.86	592.31	10.47	
10350.00	8980.00	10120.80	8980.00	31.72	31.71	270.09	1398.63	-46.63	654.68	591.30	10.33	
10380.00	8980.00	10150.77	8980.00	32.13	32.13	270.09	1428.60	-46.60	654.51	590.28	10.19	
10410.00	8980.00	10180.73	8980.00	32.55	32.55	270.09	1458.56	-46.56	654.33	589.27	10.06	
10440.00	8980.00	10210.69	8980.00	32.98	32.98	270.09	1488.52	-46.53	654.16	588.24	9.92	
10470.00	8980.00	10240.65	8980.00	33.41	33.42	270.09	1518.48	-46.49	653.99	587.21	9.79	
10500.00	8980.00	10270.61	8980.00	33.84	33.85	270.09	1548.44	-46.46	653.82	586.17	9.66	
10530.00	8980.00	10300.57	8980.00	34.27	34.29	270.09	1578.40	-46.43	653.66	585.13	9.54	
10560.00	8980.00	10330.54	8980.00	34.71	34.73	270.09	1608.37	-46.41	653.49	584.08	9.42	
10590.00	8980.00	10360.50	8980.00	35.15	35.18	270.09	1638.33	-46.38	653.33	583.04	9.29	
10620.00	8980.00	10390.46	8980.00	35.60	35.62	270.09	1668.29	-46.36	653.17	581.98	9.18	
10650.00	8980.00	10420.42	8980.00	36.05	36.07	270.09	1698.25	-46.33	653.01	580.92	9.06	
10680.00	8980.00	10450.38	8980.00	36.50	36.53	270.09	1728.21	-46.31	652.85	579.86	8.94	
10710.00	8980.00	10480.34	8980.00	36.95	36.98	270.09	1758.17	-46.29	652.70	578.80	8.83	
10740.00	8980.00	10510.31	8980.00	37.41	37.44	270.09	1788.14	-46.28	652.54	577.73	8.72	
10770.00	8980.00	10540.27	8980.00	37.86	37.90	270.09	1818.10	-46.26	652.39	576.66	8.61	
10800.00	8980.00	10570.23	8980.00	38.32	38.36	270.09	1848.06	-46.25	652.24	575.59	8.51	
10830.00	8980.00	10600.19	8980.00	38.79	38.82	270.09	1878.02	-46.24	652.09	574.51	8.41	
10860.00	8980.00	10630.15	8980.00	39.25	39.29	270.09	1907.98	-46.23	651.94	573.43	8.30	
10890.00	8980.00	10660.12	8980.00	39.72	39.76	270.09	1937.95	-46.22	651.80	572.35	8.20	
10920.00	8980.00	10690.08	8980.00	40.19	40.23	270.09	1967.91	-46.21	651.65	571.27	8.11	
10950.00	8980.00	10720.04	8980.00	40.66	40.70	270.09	1997.87	-46.21	651.51	570.18	8.01	
10980.00	8980.00	10750.00	8980.00	41.13	41.18	270.09	2027.83	-46.20	651.37	569.09	7.92	
11010.00	8980.00	10779.96	8980.00	41.60	41.66	270.09	2057.79	-46.20	651.23	568.00	7.82	
11040.00	8980.00	10809.93	8980.00	42.08	42.13	270.09	2087.76	-46.20	651.09	566.91	7.73	
11070.00	8980.00	10839.89	8980.00	42.56	42.61	270.09	2117.72	-46.20	650.96	565.82	7.65	
11100.00	8980.00	10869.85	8980.00	43.04	43.10	270.09	2147.68	-46.21	650.82	564.72	7.56	
11130.00	8980.00	10899.81	8980.00	43.52	43.58	270.09	2177.64	-46.21	650.69	563.63	7.47	
11160.00	8980.00	10929.77	8980.00	44.00	44.06	270.09	2207.60	-46.22	650.56	562.53	7.39	
11190.00	8980.00	10959.74	8980.00	44.49	44.55	270.09	2237.57	-46.23	650.43	561.43	7.31	
11220.00	8980.00	10989.70	8980.00	44.97	45.03	270.09	2267.53	-46.24	650.31	560.33	7.23	
11250.00	8980.00	11019.66	8980.00	45.46	45.52	270.09	2297.49	-46.25	650.18	559.23	7.15	
11280.00	8980.00	11049.62	8980.00	45.95	46.01	270.09	2327.45	-46.27	650.06	558.12	7.07	
11310.00	8980.00	11079.58	8980.00	46.44	46.51	270.09	2357.41	-46.28	649.94	557.02	6.99	
11340.00	8980.00	11109.55	8980.00	46.93	47.00	270.09	2387.38	-46.30	649.82	555.92	6.92	
11370.00	8980.00	11139.51	8980.00	47.42	47.49	270.09	2417.34	-46.32	649.70	554.81	6.85	
11400.00	8980.00	11169.47	8980.00	47.92	47.99	270.09	2447.30	-46.34	649.59	553.71	6.78	
11430.00	8980.00	11199.43	8980.00	48.41	48.48	270.09	2477.26	-46.36	649.47	552.60	6.70	
11460.00	8980.00	11229.40	8980.00	48.91	48.98	270.09	2507.23	-46.39	649.36	551.50	6.64	
11490.00	8980.00	11259.36	8980.00	49.40	49.48	270.09	2537.19	-46.42	649.25	550.39	6.57	
11520.00	8980.00	11289.32	8980.00	49.90	49.98	270.09	2567.15	-46.44	649.14	549.28	6.50	
11550.00	8980.00	11319.28	8980.00	50.40	50.48	270.09	2597.11	-46.47	649.03	548.18	6.44	
11580.00	8980.00	11349.24	8980.00	50.90	50.98	270.09	2627.07	-46.50	648.92	547.07	6.37	
11610.00	8980.00	11379.21	8980.00	51.40	51.48	270.09	2657.04	-46.54	648.82	545.96	6.31	
11640.00	8980.00	11409.17	8980.00	51.91	51.98	270.09	2687.00	-46.57	648.72	544.85	6.25	
11670.00	8980.00	11439.13	8980.00	52.41	52.49	270.09	2716.96	-46.61	648.62	543.75	6.18	
11700.00	8980.00	11469.09	8980.00	52.91	52.99	270.09	2746.92	-46.65	648.52	542.64	6.13	
11730.00	8980.00	11499.06	8980.00	53.42	53.50	270.09	2776.89	-46.69	648.42	541.53	6.07	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010

Time: 11:27:45

Page: 9

Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0

Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis		Offset Location			Ctr-Ctr	Edge	Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
11760.00	8980.00	11529.02	8980.00	53.92	54.00	270.09	2806.85	-46.73	648.33	540.42	6.01	
11790.00	8980.00	11558.98	8980.00	54.43	54.51	270.09	2836.81	-46.77	648.23	539.32	5.95	
11820.00	8980.00	11588.94	8980.00	54.94	55.02	270.09	2866.77	-46.82	648.14	538.21	5.90	
11850.00	8980.00	11618.91	8980.00	55.45	55.53	270.09	2896.73	-46.87	648.05	537.10	5.84	
11880.00	8980.00	11648.87	8980.00	55.95	56.04	270.09	2926.70	-46.92	647.96	535.99	5.79	
11910.00	8980.00	11678.83	8980.00	56.46	56.55	270.09	2956.66	-46.97	647.88	534.89	5.73	
11940.00	8980.00	11708.79	8980.00	56.97	57.06	270.09	2986.62	-47.02	647.79	533.78	5.68	
11970.00	8980.00	11738.75	8980.00	57.49	57.57	270.09	3016.58	-47.07	647.71	532.68	5.63	
12000.00	8980.00	11768.72	8980.00	58.00	58.08	270.09	3046.55	-47.13	647.63	531.57	5.58	
12030.00	8980.00	11798.68	8980.00	58.51	58.59	270.09	3076.51	-47.19	647.55	530.47	5.53	
12060.00	8980.00	11828.64	8980.00	59.02	59.11	270.09	3106.47	-47.25	647.47	529.36	5.48	
12090.00	8980.00	11858.60	8980.00	59.54	59.62	270.09	3136.43	-47.31	647.39	528.26	5.43	
12120.00	8980.00	11888.57	8980.00	60.05	60.14	270.09	3166.40	-47.37	647.32	527.15	5.39	
12150.00	8980.00	11918.53	8980.00	60.57	60.65	270.09	3196.36	-47.43	647.25	526.05	5.34	
12180.00	8980.00	11948.49	8980.00	61.08	61.17	270.09	3226.32	-47.50	647.18	524.95	5.29	
12210.00	8980.00	11978.45	8980.00	61.60	61.68	270.09	3256.28	-47.57	647.11	523.85	5.25	
12240.00	8980.00	12008.42	8980.00	62.11	62.20	270.09	3286.25	-47.64	647.04	522.74	5.21	
12270.00	8980.00	12038.38	8980.00	62.63	62.72	270.09	3316.21	-47.71	646.97	521.64	5.16	
12300.00	8980.00	12068.34	8980.00	63.15	63.24	270.09	3346.17	-47.78	646.91	520.55	5.12	
12330.00	8980.00	12098.30	8980.00	63.67	63.75	270.09	3376.13	-47.86	646.85	519.45	5.08	
12360.00	8980.00	12128.27	8980.00	64.18	64.27	270.09	3406.10	-47.93	646.79	518.35	5.04	
12390.00	8980.00	12158.23	8980.00	64.70	64.79	270.09	3436.06	-48.01	646.73	517.25	4.99	
12420.00	8980.00	12188.19	8980.00	65.22	65.31	270.09	3466.02	-48.09	646.67	516.15	4.95	
12450.00	8980.00	12218.15	8980.00	65.74	65.83	270.09	3495.98	-48.17	646.61	515.06	4.92	
12480.00	8980.00	12248.12	8980.00	66.26	66.35	270.09	3525.94	-48.26	646.56	513.96	4.88	
12510.00	8980.00	12278.08	8980.00	66.78	66.87	270.09	3555.91	-48.34	646.51	512.87	4.84	
12540.00	8980.00	12308.04	8980.00	67.31	67.40	270.09	3585.87	-48.43	646.46	511.78	4.80	
12570.00	8980.00	12338.00	8980.00	67.83	67.92	270.09	3615.83	-48.52	646.41	510.68	4.76	
12600.00	8980.00	12367.97	8980.00	68.35	68.44	270.09	3645.79	-48.61	646.36	509.59	4.73	
12630.00	8980.00	12397.93	8980.00	68.87	68.96	270.09	3675.76	-48.70	646.32	508.50	4.69	
12660.00	8980.00	12427.89	8980.00	69.40	69.49	270.09	3705.72	-48.80	646.28	507.41	4.65	
12690.00	8980.00	12457.85	8980.00	69.92	70.01	270.09	3735.68	-48.89	646.23	506.32	4.62	
12720.00	8980.00	12487.82	8980.00	70.44	70.53	270.09	3765.64	-48.99	646.19	505.24	4.58	
12750.00	8980.00	12517.78	8980.00	70.97	71.06	270.09	3795.61	-49.09	646.16	504.15	4.55	
12780.00	8980.00	12547.74	8980.00	71.49	71.58	270.09	3825.57	-49.19	646.12	503.06	4.52	
12810.00	8980.00	12577.70	8980.00	72.02	72.11	270.09	3855.53	-49.29	646.09	501.98	4.48	
12840.00	8980.00	12607.67	8980.00	72.54	72.63	270.09	3885.49	-49.40	646.05	500.90	4.45	
12870.00	8980.00	12637.63	8980.00	73.07	73.16	270.09	3915.46	-49.50	646.02	499.81	4.42	
12900.00	8980.00	12667.59	8980.00	73.59	73.68	270.09	3945.42	-49.61	645.99	498.73	4.39	
12930.00	8980.00	12697.56	8980.00	74.12	74.21	270.09	3975.38	-49.72	645.96	497.65	4.36	
12960.00	8980.00	12727.52	8980.00	74.65	74.74	270.09	4005.34	-49.83	645.94	496.57	4.32	
12990.00	8980.00	12757.48	8980.00	75.17	75.26	270.09	4035.31	-49.94	645.91	495.50	4.29	
13020.00	8980.00	12787.44	8980.00	75.70	75.79	270.09	4065.27	-50.06	645.89	494.42	4.26	
13050.00	8980.00	12817.41	8980.00	76.23	76.32	270.09	4095.23	-50.17	645.87	493.34	4.23	
13080.00	8980.00	12847.37	8980.00	76.75	76.85	270.09	4125.19	-50.29	645.85	492.27	4.21	
13110.00	8980.00	12877.33	8980.00	77.28	77.37	270.09	4155.16	-50.41	645.84	491.20	4.18	
13140.00	8980.00	12907.29	8980.00	77.81	77.90	270.09	4185.12	-50.53	645.82	490.12	4.15	
13170.00	8980.00	12937.26	8980.00	78.34	78.43	270.09	4215.08	-50.66	645.81	489.05	4.12	
13200.00	8980.00	12967.22	8980.00	78.87	78.96	270.09	4245.04	-50.78	645.79	487.98	4.09	
13230.00	8980.00	12997.18	8980.00	79.40	79.49	270.09	4275.00	-50.91	645.78	486.91	4.06	
13260.00	8980.00	13027.14	8980.00	79.93	80.02	270.09	4304.97	-51.04	645.78	485.85	4.04	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010 Time: 11:27:45 Page: 10
Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0
Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis		Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft				
13290.00	8980.00	13057.11	8980.00	80.46	80.55	270.09	4334.93	-51.17	645.77	484.78	4.01
13320.00	8980.00	13087.07	8980.00	80.99	81.08	270.09	4364.89	-51.30	645.76	483.72	3.99
13350.00	8980.00	13117.03	8980.00	81.52	81.61	270.09	4394.85	-51.44	645.76	482.65	3.96
13380.00	8980.00	13146.99	8980.00	82.05	82.14	270.09	4424.82	-51.57	645.76	481.59	3.93
13410.00	8980.00	13176.96	8980.00	82.58	82.67	270.09	4454.78	-51.71	645.76	480.53	3.91
13440.00	8980.00	13206.92	8980.00	83.11	83.20	270.09	4484.74	-51.85	645.76	479.47	3.88
13470.00	8980.00	13236.88	8980.00	83.64	83.73	270.09	4514.70	-51.99	645.77	478.41	3.86
13500.00	8980.00	13266.84	8980.00	84.17	84.26	270.09	4544.67	-52.13	645.77	477.35	3.83
13530.00	8980.00	13296.81	8980.00	84.70	84.79	270.09	4574.63	-52.27	645.78	476.30	3.81
13560.00	8980.00	13326.77	8980.00	85.23	85.32	270.09	4604.59	-52.42	645.79	475.24	3.79
13590.00	8980.00	13356.73	8980.00	85.77	85.86	270.09	4634.55	-52.57	645.80	474.19	3.76
13620.00	8980.00	13386.70	8980.00	86.30	86.39	270.09	4664.51	-52.72	645.81	473.14	3.74
13650.00	8980.00	13416.66	8980.00	86.83	86.92	270.09	4694.48	-52.87	645.82	472.09	3.72
13680.00	8980.00	13446.62	8980.00	87.36	87.45	270.09	4724.44	-53.02	645.84	471.04	3.69
13710.00	8980.00	13476.58	8980.00	87.89	87.99	270.09	4754.40	-53.18	645.86	469.99	3.67
13740.00	8980.00	13506.55	8980.00	88.43	88.52	270.09	4784.36	-53.33	645.88	468.95	3.65
13770.00	8980.00	13536.51	8980.00	88.96	89.05	270.09	4814.33	-53.49	645.90	467.90	3.63
13800.00	8980.00	13566.47	8980.00	89.49	89.58	270.09	4844.29	-53.65	645.92	466.86	3.61
13830.00	8980.00	13596.43	8980.00	90.03	90.12	270.09	4874.25	-53.81	645.94	465.81	3.59
13860.00	8980.00	13626.40	8980.00	90.56	90.65	270.09	4904.21	-53.98	645.97	464.77	3.57
13890.00	8980.00	13656.36	8980.00	91.09	91.18	270.09	4934.17	-54.14	646.00	463.73	3.54
13920.00	8980.00	13686.32	8980.00	91.63	91.72	270.09	4964.14	-54.31	646.03	462.70	3.52
13950.00	8980.00	13716.28	8980.00	92.16	92.25	270.09	4994.10	-54.48	646.06	461.66	3.50
13980.00	8980.00	13746.25	8980.00	92.70	92.79	270.09	5024.06	-54.65	646.09	460.62	3.48
14010.00	8980.00	13776.21	8980.00	93.23	93.32	270.09	5054.02	-54.82	646.13	459.59	3.46
14040.00	8980.00	13806.17	8980.00	93.77	93.86	270.09	5083.98	-54.99	646.16	458.56	3.44
14070.00	8980.00	13836.13	8980.00	94.30	94.39	270.09	5113.95	-55.17	646.20	457.53	3.42
14100.00	8980.00	13866.10	8980.00	94.83	94.93	270.09	5143.91	-55.35	646.24	456.50	3.41
14130.00	8980.00	13896.06	8980.00	95.37	95.46	270.09	5173.87	-55.52	646.29	455.47	3.39
14160.00	8979.99	13926.02	8980.00	95.91	96.00	270.09	5203.83	-55.70	646.33	454.44	3.37
14190.00	8979.99	13955.98	8980.00	96.44	96.53	270.09	5233.80	-55.89	646.37	453.42	3.35
14220.00	8979.99	13985.95	8980.00	96.98	97.07	270.09	5263.76	-56.07	646.42	452.39	3.33
14250.00	8979.99	14015.91	8980.00	97.51	97.60	270.09	5293.72	-56.26	646.47	451.37	3.31
14280.00	8979.99	14045.87	8980.00	98.05	98.14	270.09	5323.68	-56.44	646.52	450.35	3.30
14310.00	8979.99	14075.83	8980.00	98.58	98.67	270.09	5353.64	-56.63	646.57	449.33	3.28
14340.00	8979.99	14105.80	8980.00	99.12	99.21	270.09	5383.60	-56.83	646.63	448.31	3.26
14370.00	8979.99	14135.76	8980.00	99.66	99.74	270.09	5413.57	-57.02	646.68	447.30	3.24
14400.00	8979.99	14165.72	8980.00	100.19	100.28	270.09	5443.53	-57.21	646.74	446.28	3.23
14430.00	8979.99	14195.68	8980.00	100.73	100.82	270.09	5473.49	-57.41	646.80	445.27	3.21
14460.00	8979.99	14225.65	8980.00	101.26	101.35	270.09	5503.45	-57.61	646.86	444.26	3.19
14490.00	8979.99	14255.61	8980.00	101.80	101.89	270.09	5533.41	-57.81	646.92	443.25	3.18
14520.00	8979.99	14285.57	8980.00	102.34	102.43	270.09	5563.38	-58.01	646.99	442.24	3.16
14550.00	8979.99	14315.53	8980.00	102.87	102.96	270.09	5593.34	-58.21	647.05	441.23	3.14
14580.00	8979.99	14345.50	8980.00	103.41	103.50	270.09	5623.30	-58.42	647.12	440.22	3.13
14610.00	8979.99	14375.46	8980.00	103.95	104.04	270.09	5653.26	-58.62	647.19	439.22	3.11
14640.00	8979.99	14405.42	8980.00	104.49	104.57	270.09	5683.22	-58.83	647.26	438.21	3.10
14670.00	8979.99	14435.38	8980.00	105.02	105.11	270.09	5713.18	-59.04	647.34	437.21	3.08
14700.00	8979.99	14465.35	8980.00	105.56	105.65	270.09	5743.15	-59.25	647.41	436.21	3.07
14730.00	8979.99	14495.31	8980.00	106.10	106.19	270.09	5773.11	-59.47	647.49	435.21	3.05
14760.00	8979.99	14525.27	8980.00	106.64	106.72	270.09	5803.07	-59.68	647.57	434.22	3.04
14790.00	8979.99	14555.23	8980.00	107.17	107.26	270.09	5833.03	-59.90	647.65	433.22	3.02



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H
Reference Well: Cotton Draw Unit #137H
Reference Wellpath: 1

Date: 11/1/2010

Time: 11:27:45

Page: 11

Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Vertical (TVD) Reference: SITE 3445.0

Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
14820.00	8979.99	14585.20	8980.00	107.71	107.80	270.09	5862.99	-60.12	647.73	432.23	3.01	
14850.00	8979.99	14615.16	8980.00	108.25	108.34	270.09	5892.95	-60.34	647.81	431.24	2.99	
14880.00	8979.99	14645.12	8980.00	108.79	108.88	270.09	5922.92	-60.56	647.90	430.24	2.98	
14910.00	8979.99	14675.08	8980.00	109.33	109.41	270.09	5952.88	-60.79	647.98	429.26	2.96	
14940.00	8979.99	14705.05	8980.00	109.86	109.95	270.09	5982.84	-61.01	648.07	428.27	2.95	
14970.00	8979.99	14735.01	8980.00	110.40	110.49	270.09	6012.80	-61.24	648.16	427.28	2.93	
15000.00	8979.99	14764.97	8980.00	110.94	111.03	270.09	6042.76	-61.47	648.25	426.30	2.92	
15030.00	8979.99	14794.93	8980.00	111.48	111.57	270.09	6072.72	-61.70	648.35	425.31	2.91	
15060.00	8979.99	14824.90	8980.00	112.02	112.11	270.09	6102.69	-61.93	648.44	424.33	2.89	
15090.00	8979.99	14854.86	8980.00	112.56	112.64	270.09	6132.65	-62.17	648.54	423.35	2.88	
15120.00	8979.99	14884.82	8980.00	113.10	113.18	270.09	6162.61	-62.40	648.64	422.37	2.87	
15150.00	8979.99	14914.78	8980.00	113.64	113.72	270.09	6192.57	-62.64	648.74	421.40	2.85	
15180.00	8979.99	14944.74	8980.00	114.17	114.26	270.09	6222.53	-62.88	648.84	420.42	2.84	
15210.00	8979.99	14974.71	8980.00	114.71	114.80	270.09	6252.49	-63.12	648.95	419.45	2.83	
15240.00	8979.99	15004.67	8980.00	115.25	115.34	270.09	6282.45	-63.36	649.05	418.47	2.81	
15270.00	8979.99	15034.63	8980.00	115.79	115.88	270.09	6312.41	-63.61	649.16	417.50	2.80	
15300.00	8979.99	15064.59	8980.00	116.33	116.42	270.09	6342.38	-63.86	649.27	416.53	2.79	
15330.00	8979.99	15094.56	8980.00	116.87	116.96	270.09	6372.34	-64.10	649.38	415.57	2.78	
15360.00	8979.99	15124.52	8980.00	117.41	117.50	270.09	6402.30	-64.35	649.50	414.60	2.77	
15390.00	8979.99	15154.48	8980.00	117.95	118.04	270.09	6432.26	-64.61	649.61	413.64	2.75	
15420.00	8979.99	15184.44	8980.00	118.49	118.58	270.09	6462.22	-64.86	649.73	412.67	2.74	
15450.00	8979.99	15214.40	8980.00	119.03	119.12	270.09	6492.18	-65.11	649.85	411.71	2.73	
15480.00	8979.99	15244.37	8980.00	119.57	119.66	270.09	6522.14	-65.37	649.97	410.75	2.72	
15510.00	8979.99	15274.33	8980.00	120.11	120.20	270.09	6552.10	-65.63	650.09	409.80	2.71	
15540.00	8979.99	15304.29	8980.00	120.65	120.74	270.09	6582.06	-65.89	650.21	408.84	2.69	
15570.00	8979.99	15334.25	8980.00	121.19	121.28	270.09	6612.03	-66.15	650.34	407.88	2.68	
15600.00	8979.99	15364.22	8980.00	121.73	121.82	270.09	6641.99	-66.42	650.46	406.93	2.67	
15630.00	8979.99	15394.18	8980.00	122.27	122.36	270.09	6671.95	-66.68	650.59	405.98	2.66	
15660.00	8979.99	15424.14	8980.00	122.81	122.90	270.09	6701.91	-66.95	650.72	405.03	2.65	
15690.00	8979.99	15454.10	8980.00	123.35	123.44	270.09	6731.87	-67.22	650.85	404.08	2.64	
15720.00	8979.99	15484.06	8980.00	123.89	123.98	270.09	6761.83	-67.49	650.99	403.13	2.63	
15750.00	8979.99	15514.03	8980.00	124.43	124.52	270.09	6791.79	-67.76	651.12	402.19	2.62	
15780.00	8979.99	15543.99	8980.00	124.97	125.06	270.09	6821.75	-68.04	651.26	401.24	2.60	
15810.00	8979.99	15573.95	8980.00	125.51	125.60	270.09	6851.71	-68.31	651.40	400.30	2.59	
15840.00	8979.99	15603.91	8980.00	126.05	126.14	270.09	6881.67	-68.59	651.54	399.36	2.58	
15870.00	8979.99	15633.87	8980.00	126.59	126.68	270.09	6911.63	-68.87	651.68	398.42	2.57	
15900.00	8979.99	15663.84	8980.00	127.13	127.22	270.09	6941.59	-69.15	651.83	397.48	2.56	
15930.00	8979.99	15693.80	8980.00	127.67	127.76	270.09	6971.55	-69.43	651.97	396.55	2.55	
15960.00	8979.99	15723.76	8980.00	128.22	128.30	270.09	7001.51	-69.72	652.12	395.61	2.54	
15990.00	8979.99	15753.72	8980.00	128.76	128.84	270.09	7031.48	-70.01	652.27	394.68	2.53	
16020.00	8979.99	15783.68	8980.00	129.30	129.39	270.09	7061.44	-70.29	652.42	393.75	2.52	
16050.00	8979.99	15813.64	8980.00	129.84	129.93	270.09	7091.40	-70.58	652.58	392.82	2.51	
16080.00	8979.99	15843.61	8980.00	130.38	130.47	270.09	7121.36	-70.88	652.73	391.89	2.50	
16110.00	8979.99	15873.57	8980.00	130.92	131.01	270.09	7151.32	-71.17	652.89	390.97	2.49	
16140.00	8979.99	15903.53	8980.00	131.46	131.55	270.09	7181.28	-71.46	653.05	390.04	2.48	
16170.00	8979.99	15933.49	8980.00	132.00	132.09	270.09	7211.24	-71.76	653.21	389.12	2.47	
16200.00	8979.99	15963.45	8980.00	132.55	132.63	270.09	7241.20	-72.06	653.37	388.20	2.46	
16230.00	8979.99	15993.42	8980.00	133.09	133.17	270.09	7271.16	-72.36	653.53	387.28	2.45	
16260.00	8979.99	16023.38	8980.00	133.63	133.72	270.09	7301.12	-72.66	653.70	386.36	2.45	
16290.00	8979.99	16053.34	8980.00	134.17	134.26	270.09	7331.08	-72.97	653.86	385.45	2.44	
16320.00	8979.99	16083.30	8980.00	134.71	134.80	270.09	7361.04	-73.27	654.03	384.53	2.43	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy Date: 11/1/2010 Time: 11:27:45 Page: 12
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit #137H Co-ordinate(NE) Reference: Well: Cotton Draw Unit #137H, Grid North
Reference Well: Cotton Draw Unit #137H Vertical (TVD) Reference: SITE 3445.0
Reference Wellpath: 1 Db: Sybase

Site: Cotton Draw Unit #136H
Well: Cotton Draw Unit #136H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
16350.00	8979.99	16113.26	8980.00	135.25	135.34	270.09	7391.00	-73.58	654.20	383.62	2.42	
16380.00	8979.99	16143.22	8980.00	135.80	135.88	270.09	7420.96	-73.89	654.37	382.71	2.41	
16410.00	8979.99	16173.19	8980.00	136.34	136.42	270.09	7450.92	-74.20	654.55	381.80	2.40	
16440.00	8979.99	16203.15	8980.00	136.88	136.97	270.09	7480.88	-74.51	654.72	380.89	2.39	
16470.00	8979.99	16233.11	8980.00	137.42	137.51	270.09	7510.84	-74.82	654.90	379.98	2.38	
16500.00	8979.99	16263.07	8980.00	137.96	138.05	270.09	7540.80	-75.14	655.08	379.08	2.37	
16530.00	8979.99	16293.03	8980.00	138.50	138.59	270.09	7570.76	-75.46	655.26	378.17	2.36	
16560.00	8979.99	16322.99	8980.00	139.05	139.13	270.09	7600.72	-75.78	655.44	377.27	2.36	
16590.00	8979.99	16352.95	8980.00	139.59	139.68	270.09	7630.68	-76.10	655.63	376.37	2.35	
16620.00	8979.99	16382.92	8980.00	140.13	140.22	270.09	7660.64	-76.42	655.81	375.47	2.34	
16641.91	8980.00	16404.79	8980.00	140.53	140.61	270.09	7682.51	-76.66	655.96	374.83	2.33	

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

GeoDec v5.03

Report Date: November 01, 2010
Job Number: _____
Customer: Devon Energy
Well Name: Cotton Draw Unit #137H
API Number: _____
Rig Name: _____
Location: Eddy Co, NM
Block: _____
Engineer: R Joyner

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 419733.400 USFT	Latitude 32.1525889 DEG
East/West 721336.780 USFT	Longitude -103.7517072 DEG
Grid Convergence: .31°	
Total Correction: +7.39°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude = 32.15259° N	32° 9 min	9.320 sec
Longitude = 103.75171° W	103° 45 min	6.146 sec

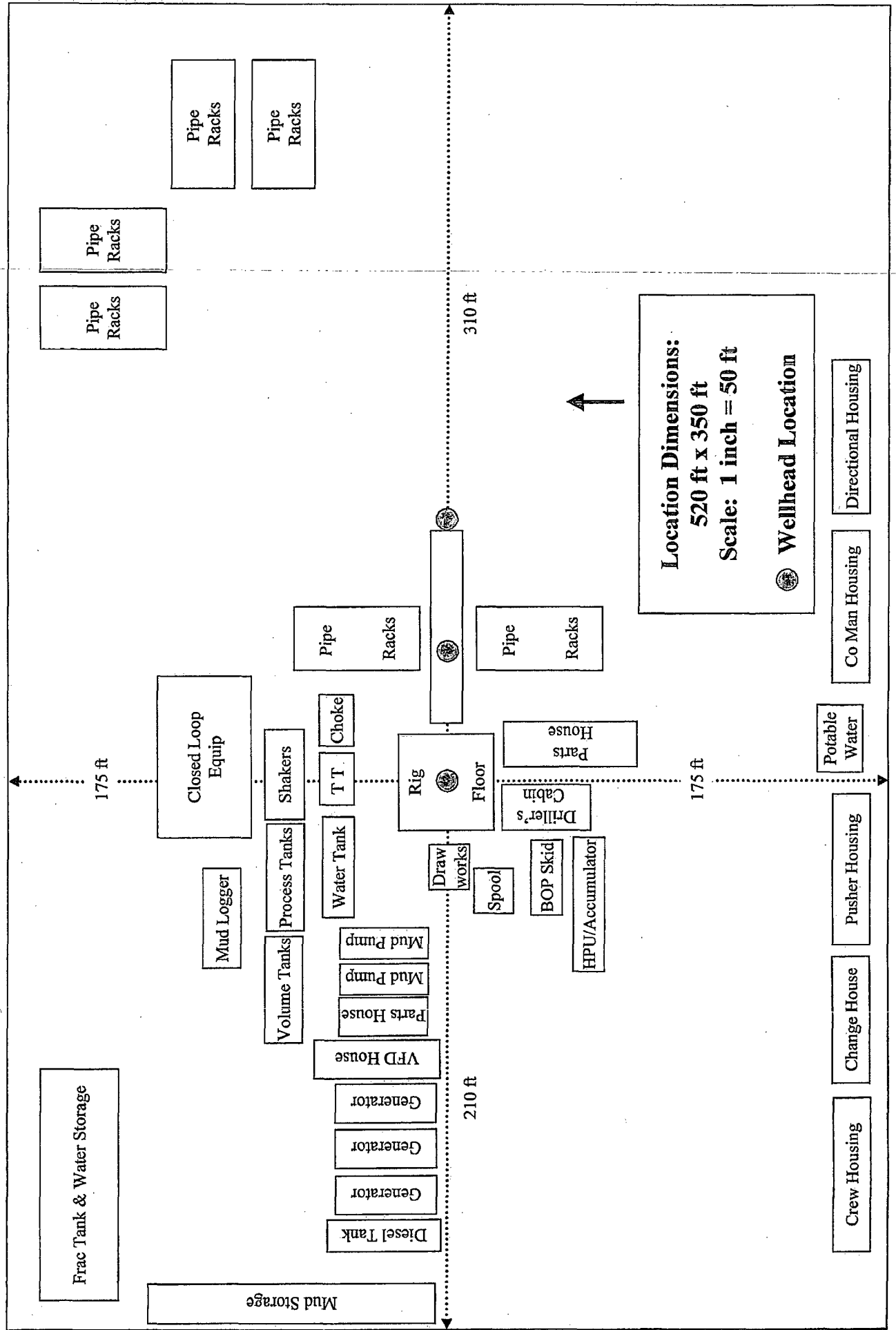
Magnetic Declination =	7.70°	[True North Offset]	
Local Gravity =	.9988 g	Checksum =	6503
Local Field Strength =	48600 nT	Magnetic Vector X =	24012 nT
Magnetic Dip =	60.10°	Magnetic Vector Y =	3245 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z =	42129 nT
Spud Date =	Mar 15, 2011	Magnetic Vector H =	24230 nT

Signed: _____

Date: _____

H&P Flex Rig Location Layout

3 Well Pad



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

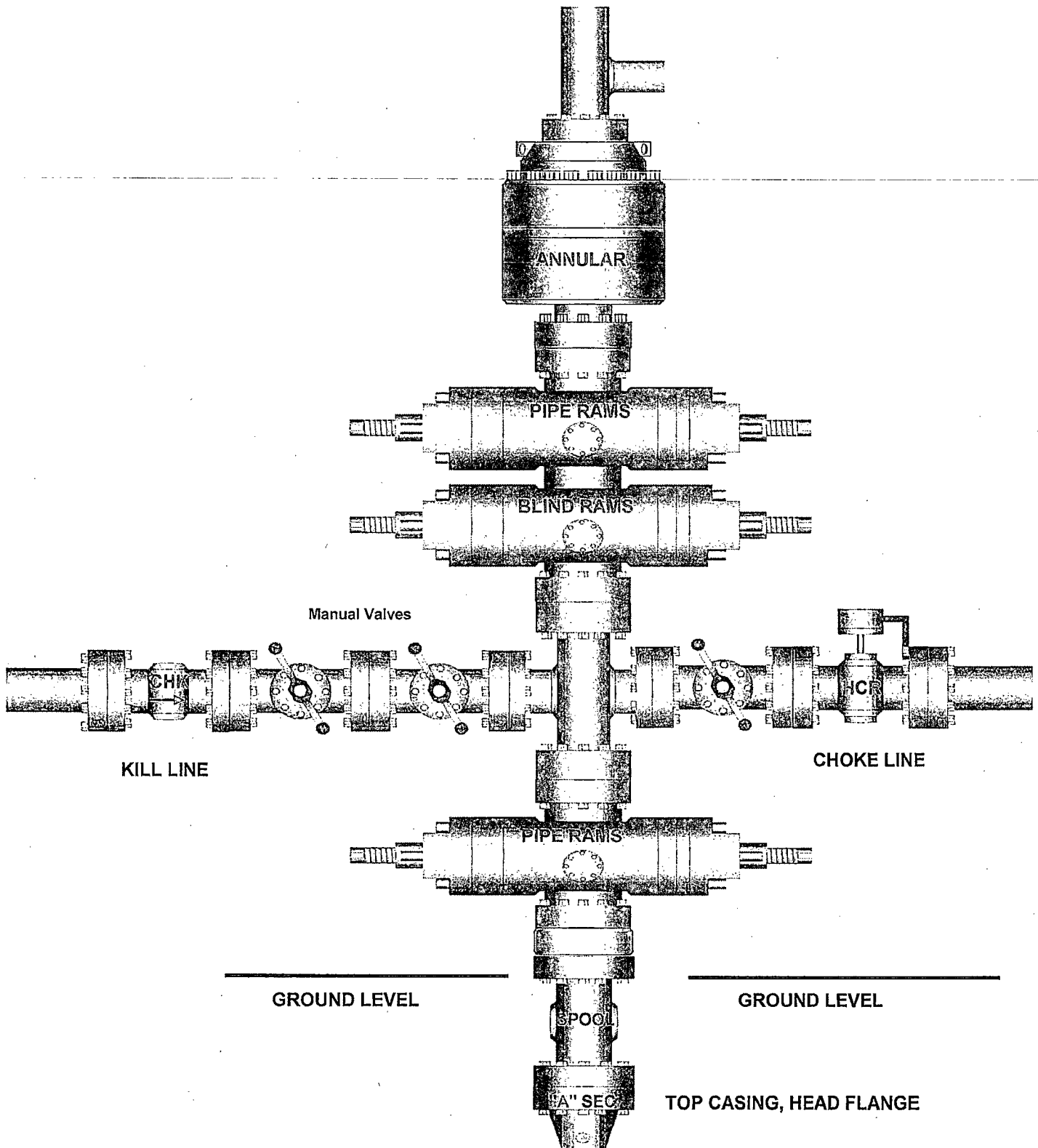
Cotton Draw Unit 137H

Surface Location: 200' FSL & 1700' FWL, Unit N, Sec 2 T25S R31E, Eddy, NM

Bottom Hole Location: 2600' FSL & 2279' FWL, Unit K, Sec 35 T24S R31E, Eddy, 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 3,000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3,000 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





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.

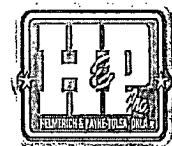
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

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.

I-6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
 Phone: (3662) 566-737 • Fax: (3662) 566-739

SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 28
 Phone: (361) 450-4200 • Fax: (361) 217-2972, 456-4273 • www.teumusantergo.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 Department PHOENIX RUBBER		

