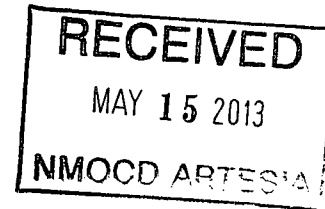




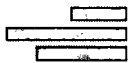
Weatherford®



Drilling Services

30-015-41364

Proposal



devon

COTTON DRAW UNIT 220H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

MAY 9, 2013

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

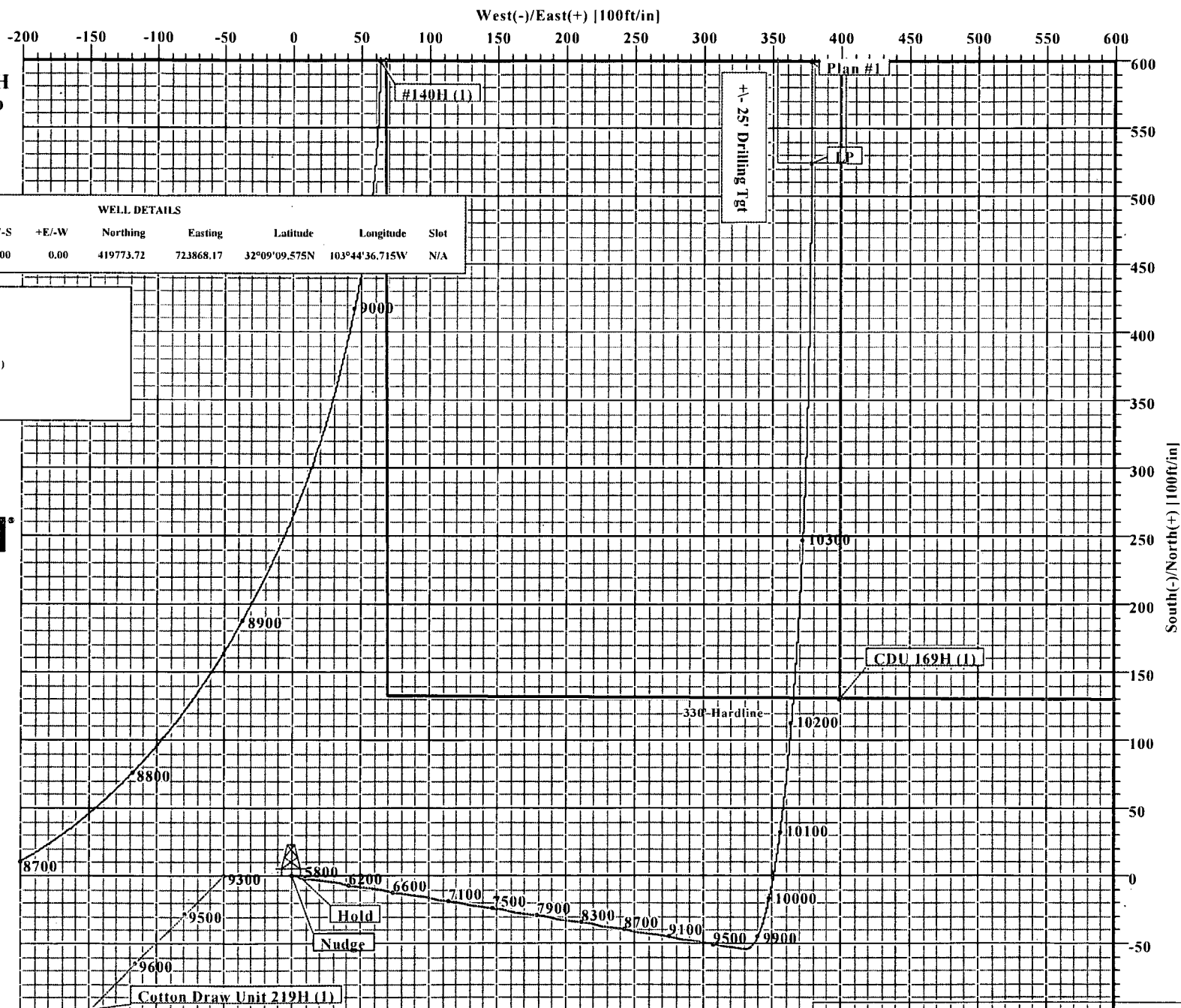
+1.432.561.8892 Main

+1.432.561.8895 Fax

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Cotton Draw Unit 220H
Eddy Co., New Mexico



WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Cotton Draw Unit 220H	0.00	0.00	419773.72	723868.17	32°09'09.575N	103°44'36.715W	N/A

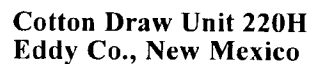
LEGEND

- #138H (1)
- #139H (1)
- #140H (1)
- CDU 169H (1)
- Cotton Draw Unit 219H (1)
- Plan #1

Plan: Plan #1 (Cotton Draw Unit 220H/1) -100

Created By: Russell W. Joyner

Date: 5/9/2013

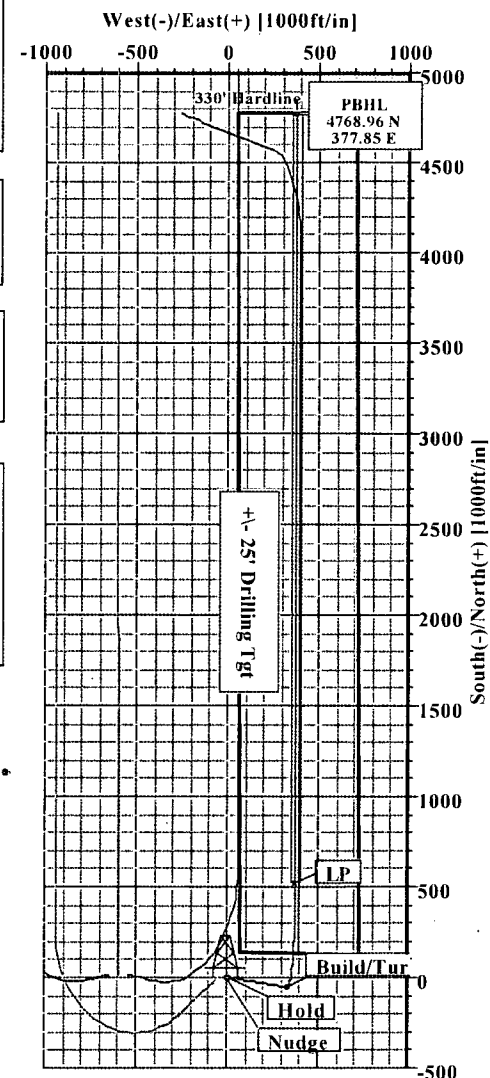
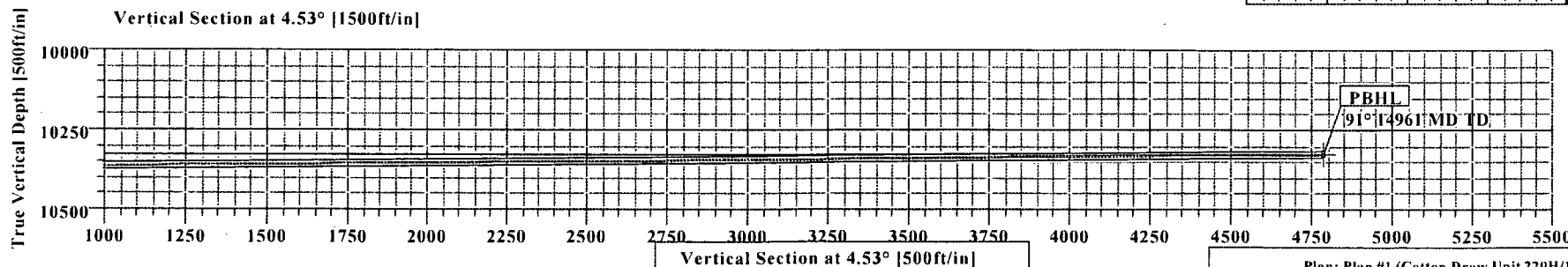


SITE DETAILS

Cotton Draw Unit 220H

Site Centre Northing: 419773.72
Easting: 723869.17

Ground Level: 3451.00
Positional Uncertainty: 0.00
Convergence: 0.31



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Plan: Plan #1 (Cotton Draw Unit 220H/1)

Created By: Russell W. Joyner

Date: 5/9/2013



Weatherford

Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy Date: 5/9/2013 Time: 10:27:08 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Site: Cotton Draw Unit 220H Vertical (TVD) Reference: SITE 3476.0
Well: Cotton Draw Unit 220H Section (VS) Reference: Well (0.00N,0.00E,4.53Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 5/9/2013
Principal: Yes Version: 1
Tied-to: From Surface

Site: Cotton Draw Unit 220H

Site Position: Northing: 419773.72 ft Latitude: 32 9 9.575 N
From: Map Easting: 723868.17 ft Longitude: 103 44 36.715 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3451.00 ft Grid Convergence: 0.31 deg

Well: Cotton Draw Unit 220H Slot Name:
Well Position: +N/-S 0.00 ft Northing: 419773.72 ft Latitude: 32 9 9.575 N
+E/-W 0.00 ft Easting: 723868.17 ft Longitude: 103 44 36.715 W
Position Uncertainty: 0.00 ft

Wellpath: 1
Current Datum: SITE Height 3476.00 ft
Magnetic Data: 11/1/2013
Field Strength: 48342 nT
Vertical Section: Depth From (TVD) +N/-S
ft ft
0.00 0.00 0.00 4.53
Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 7.37 deg
Mag Dip Angle: 60.03 deg
+E/-W Direction
ft deg

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	4.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5600.00	0.00	4.53	5600.00	0.00	0.00	0.00	0.00	0.00	4.53	
5755.38	4.66	99.34	5755.21	-1.03	6.23	3.00	3.00	0.00	0.00	
9803.21	4.66	99.34	9789.65	-54.42	330.83	0.00	0.00	0.00	0.00	
10716.45	90.57	0.00	10368.23	524.17	377.85	10.00	9.41	-10.88	-99.27	
14961.45	90.57	0.00	10326.00	4768.96	377.85	0.00	0.00	0.00	0.00	

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
5600.00	0.00	4.53	5600.00	0.00	0.00	0.00	0.00	419773.72	723868.17	Nudge
5700.00	3.00	99.34	5699.95	-0.42	2.58	-0.22	3.00	419773.30	723870.75	
5755.38	4.66	99.34	5755.21	-1.03	6.23	-0.53	3.00	419772.69	723874.40	Hold
5800.00	4.66	99.34	5799.68	-1.61	9.81	-0.83	0.00	419772.11	723877.98	
5900.00	4.66	99.34	5899.35	-2.93	17.83	-1.52	0.00	419770.79	723886.00	
6000.00	4.66	99.34	5999.02	-4.25	25.85	-2.20	0.00	419769.47	723894.02	
6100.00	4.66	99.34	6098.69	-5.57	33.87	-2.88	0.00	419768.15	723902.04	
6200.00	4.66	99.34	6198.36	-6.89	41.89	-3.56	0.00	419766.83	723910.06	
6300.00	4.66	99.34	6298.03	-8.21	49.91	-4.24	0.00	419765.51	723918.08	
6400.00	4.66	99.34	6397.70	-9.53	57.93	-4.92	0.00	419764.19	723926.10	
6500.00	4.66	99.34	6497.37	-10.85	65.94	-5.60	0.00	419762.87	723934.11	
6600.00	4.66	99.34	6597.03	-12.17	73.96	-6.29	0.00	419761.55	723942.13	
6700.00	4.66	99.34	6696.70	-13.49	81.98	-6.97	0.00	419760.23	723950.15	
6800.00	4.66	99.34	6796.37	-14.80	90.00	-7.65	0.00	419758.92	723958.17	
6900.00	4.66	99.34	6896.04	-16.12	98.02	-8.33	0.00	419757.60	723966.19	
7000.00	4.66	99.34	6995.71	-17.44	106.04	-9.01	0.00	419756.28	723974.21	
7100.00	4.66	99.34	7095.38	-18.76	114.06	-9.69	0.00	419754.96	723982.23	
7200.00	4.66	99.34	7195.05	-20.08	122.08	-10.38	0.00	419753.64	723990.25	
7300.00	4.66	99.34	7294.72	-21.40	130.10	-11.06	0.00	419752.32	723998.27	
7400.00	4.66	99.34	7394.39	-22.72	138.12	-11.74	0.00	419751.00	724006.29	
7500.00	4.66	99.34	7494.06	-24.04	146.13	-12.42	0.00	419749.68	724014.30	



Weatherford

Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit 220H
Well: Cotton Draw Unit 220H
Wellpath: 1

Date: 5/9/2013 Time: 10:27:08 Page: 2
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0
Section (VS) Reference: Well (0.00N,0.00E,4.53Azi)
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	Comments
7600.00	4.66	99.34	7593.73	-25.36	154.15	-13.10	0.00	419748.36	724022.32	
7700.00	4.66	99.34	7693.40	-26.68	162.17	-13.78	0.00	419747.04	724030.34	
7800.00	4.66	99.34	7793.07	-28.00	170.19	-14.47	0.00	419745.72	724038.36	
7900.00	4.66	99.34	7892.73	-29.31	178.21	-15.15	0.00	419744.41	724046.38	
8000.00	4.66	99.34	7992.40	-30.63	186.23	-15.83	0.00	419743.09	724054.40	
8100.00	4.66	99.34	8092.07	-31.95	194.25	-16.51	0.00	419741.77	724062.42	
8200.00	4.66	99.34	8191.74	-33.27	202.27	-17.19	0.00	419740.45	724070.44	
8300.00	4.66	99.34	8291.41	-34.59	210.29	-17.87	0.00	419739.13	724078.46	
8400.00	4.66	99.34	8391.08	-35.91	218.31	-18.56	0.00	419737.81	724086.48	
8500.00	4.66	99.34	8490.75	-37.23	226.33	-19.24	0.00	419736.49	724094.50	
8600.00	4.66	99.34	8590.42	-38.55	234.34	-19.92	0.00	419735.17	724102.51	
8700.00	4.66	99.34	8690.09	-39.87	242.36	-20.60	0.00	419733.85	724110.53	
8800.00	4.66	99.34	8789.76	-41.19	250.38	-21.28	0.00	419732.53	724118.55	
8900.00	4.66	99.34	8889.43	-42.51	258.40	-21.96	0.00	419731.21	724126.57	
9000.00	4.66	99.34	8989.10	-43.82	266.42	-22.64	0.00	419729.90	724134.59	
9100.00	4.66	99.34	9088.77	-45.14	274.44	-23.33	0.00	419728.58	724142.61	
9200.00	4.66	99.34	9188.43	-46.46	282.46	-24.01	0.00	419727.26	724150.63	
9300.00	4.66	99.34	9288.10	-47.78	290.48	-24.69	0.00	419725.94	724158.65	
9400.00	4.66	99.34	9387.77	-49.10	298.50	-25.37	0.00	419724.62	724166.67	
9500.00	4.66	99.34	9487.44	-50.42	306.52	-26.05	0.00	419723.30	724174.69	
9600.00	4.66	99.34	9587.11	-51.74	314.53	-26.73	0.00	419721.98	724182.70	
9700.00	4.66	99.34	9686.78	-53.06	322.55	-27.42	0.00	419720.66	724190.72	
9800.00	4.66	99.34	9786.45	-54.38	330.57	-28.10	0.00	419719.34	724198.74	
9803.21	4.66	99.34	9789.65	-54.42	330.83	-28.12	0.00	419719.30	724199.00	Build/Turn
9900.00	10.03	27.10	9885.77	-47.53	338.57	-20.64	10.00	419726.19	724206.74	
10000.00	19.46	13.21	9982.39	-23.50	346.36	3.93	10.00	419750.22	724214.53	
10100.00	29.26	8.30	10073.39	17.00	353.72	44.88	10.00	419790.72	724221.89	
10200.00	39.15	5.72	10155.99	72.73	360.41	100.97	10.00	419846.45	724228.58	
10300.00	49.09	4.04	10227.69	142.01	366.24	170.50	10.00	419915.73	724234.41	
10400.00	59.04	2.81	10286.31	222.74	371.02	251.34	10.00	419996.46	724239.19	
10488.94	67.90	1.92	10326.00	302.16	374.27	330.78	10.00	420075.88	724242.44	PBHL
10500.00	69.00	1.82	10330.06	312.44	374.61	341.05	10.00	420086.16	724242.78	
10600.00	78.96	0.95	10357.63	408.41	376.90	436.90	10.00	420182.13	724245.07	
10700.00	88.93	0.13	10368.16	507.72	377.83	535.98	10.00	420281.44	724246.00	
10716.45	90.57	0.00	10368.23	524.17	377.85	552.38	10.00	420297.89	724246.02	LP
10800.00	90.57	0.00	10367.40	607.72	377.85	635.66	0.00	420381.44	724246.02	
10900.00	90.57	0.00	10366.40	707.71	377.85	735.34	0.00	420481.43	724246.02	
11000.00	90.57	0.00	10365.41	807.71	377.85	835.03	0.00	420581.43	724246.02	
11100.00	90.57	0.00	10364.41	907.70	377.85	934.71	0.00	420681.42	724246.02	
11200.00	90.57	0.00	10363.42	1007.70	377.85	1034.39	0.00	420781.42	724246.02	
11300.00	90.57	0.00	10362.42	1107.69	377.85	1134.07	0.00	420881.41	724246.02	
11400.00	90.57	0.00	10361.43	1207.69	377.85	1233.76	0.00	420981.41	724246.02	
11500.00	90.57	0.00	10360.44	1307.68	377.85	1333.44	0.00	421081.40	724246.02	
11600.00	90.57	0.00	10359.44	1407.68	377.85	1433.12	0.00	421181.40	724246.02	
11700.00	90.57	0.00	10358.45	1507.67	377.85	1532.81	0.00	421281.39	724246.02	
11800.00	90.57	0.00	10357.45	1607.67	377.85	1632.49	0.00	421381.39	724246.02	
11900.00	90.57	0.00	10356.46	1707.66	377.85	1732.17	0.00	421481.38	724246.02	
12000.00	90.57	0.00	10355.46	1807.66	377.85	1831.85	0.00	421581.38	724246.02	
12100.00	90.57	0.00	10354.47	1907.65	377.85	1931.54	0.00	421681.37	724246.02	
12200.00	90.57	0.00	10353.47	2007.65	377.85	2031.22	0.00	421781.37	724246.02	
12300.00	90.57	0.00	10352.48	2107.64	377.85	2130.90	0.00	421881.36	724246.02	
12400.00	90.57	0.00	10351.48	2207.64	377.85	2230.58	0.00	421981.36	724246.02	
12500.00	90.57	0.00	10350.49	2307.63	377.85	2330.27	0.00	422081.35	724246.02	



Weatherford

Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit 220H
Well: Cotton Draw Unit 220H
Wellpath: 1

Date: 5/9/2013 Time: 10:27:08 Page: 3
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0
Section (VS) Reference: Well (0.00N,0.00E,4.53Azi)
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
12600.00	90.57	0.00	10349.49	2407.63	377.85	2429.95	0.00	422181.35	724246.02	
12700.00	90.57	0.00	10348.50	2507.62	377.85	2529.63	0.00	422281.34	724246.02	
12800.00	90.57	0.00	10347.50	2607.62	377.85	2629.31	0.00	422381.34	724246.02	
12900.00	90.57	0.00	10346.51	2707.61	377.85	2729.00	0.00	422481.33	724246.02	
13000.00	90.57	0.00	10345.51	2807.61	377.85	2828.68	0.00	422581.33	724246.02	
13100.00	90.57	0.00	10344.52	2907.60	377.85	2928.36	0.00	422681.32	724246.02	
13200.00	90.57	0.00	10343.52	3007.60	377.85	3028.05	0.00	422781.32	724246.02	
13300.00	90.57	0.00	10342.53	3107.59	377.85	3127.73	0.00	422881.31	724246.02	
13400.00	90.57	0.00	10341.53	3207.59	377.85	3227.41	0.00	422981.31	724246.02	
13500.00	90.57	0.00	10340.54	3307.58	377.85	3327.09	0.00	423081.30	724246.02	
13600.00	90.57	0.00	10339.54	3407.58	377.85	3426.78	0.00	423181.30	724246.02	
13700.00	90.57	0.00	10338.55	3507.57	377.85	3526.46	0.00	423281.29	724246.02	
13800.00	90.57	0.00	10337.55	3607.57	377.85	3626.14	0.00	423381.29	724246.02	
13900.00	90.57	0.00	10336.56	3707.56	377.85	3725.82	0.00	423481.28	724246.02	
14000.00	90.57	0.00	10335.56	3807.56	377.85	3825.51	0.00	423581.28	724246.02	
14100.00	90.57	0.00	10334.57	3907.55	377.85	3925.19	0.00	423681.27	724246.02	
14200.00	90.57	0.00	10333.58	4007.55	377.85	4024.87	0.00	423781.27	724246.02	
14300.00	90.57	0.00	10332.58	4107.54	377.85	4124.55	0.00	423881.26	724246.02	
14400.00	90.57	0.00	10331.59	4207.54	377.85	4224.24	0.00	423981.26	724246.02	
14500.00	90.57	0.00	10330.59	4307.53	377.85	4323.92	0.00	424081.25	724246.02	
14600.00	90.57	0.00	10329.60	4407.53	377.85	4423.60	0.00	424181.25	724246.02	
14700.00	90.57	0.00	10328.60	4507.52	377.85	4523.28	0.00	424281.24	724246.02	
14800.00	90.57	0.00	10327.61	4607.52	377.85	4622.97	0.00	424381.24	724246.02	
14900.00	90.57	0.00	10326.61	4707.51	377.85	4722.65	0.00	424481.23	724246.02	
14961.45	90.57	0.00	10326.00	4768.96	377.85	4783.91	0.00	424542.68	724246.02	PBHL

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<---- Longitude ---->		
PBHL		10326.00	4768.96	377.85	424542.68	724246.02	32	9	56.746 N	103	44	32.015 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD ft	TVD ft	
5600.00	5600.00	Nudge
5755.38	5755.21	Hold
9803.21	9789.65	Build/Turn
10716.45	10368.23	LP
14961.45	10326.00	PBHL



Weatherford Anticollision Report



Weatherford

Company: Devon Energy Date: 5/9/2013 Time: 10:25:44 Page: 1
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Reference Well: Cotton Draw Unit 220H Vertical (TVD) Reference: SITE 3476.0
Reference Wellpath: Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria Reference: Plan: Plan #1
Interpolation Method MD + Stations Interval: 100.00 ft Error Model: ISCWSA Ellipse
Depth Range: 0.00 to 14906.06 ft Scan Method: Closest Approach 3D
Maximum Radius 40000.00 ft Error Surface: Ellipse

Plan: Plan #1 Date Composed: 5/9/2013
Principal: Yes Version: 1
Tied-to: From Surface

Summary

Site	Offset Wellpath	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
Cotton Draw Unit #14#140H	1 V0 Plan: Plan #2 V1		8900.00	9081.78	371.30	330.83	9.17	
Cotton Draw Unit 168CDU 169H	1 V0 Plan: Plan #1 V1		8200.00	12486.17	255.85	151.70	2.46	
Cotton Draw Unit 219Cotton Draw Unit 219	1 V0 Plan: Plan #1 V1		5600.00	5602.00	49.94	25.04	2.01	

Site: Cotton Draw Unit #140H
Well: #140H
Wellpath: 1 V0 Plan: Plan #2 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 Edge Distance ft	Separation Distance ft	Factor	Warning
0.00	0.00	8.00	-8.00	0.00	0.01	271.17	11.14	-543.55	543.66	543.66	80626.68	
100.00	100.00	92.00	92.00	0.08	0.08	271.17	11.14	-543.55	543.66	543.50	3359.45	
200.00	200.00	192.00	192.00	0.31	0.29	271.17	11.14	-543.55	543.66	543.06	905.92	
300.00	300.00	292.00	292.00	0.53	0.52	271.17	11.14	-543.55	543.66	542.61	517.94	
400.00	400.00	392.00	392.00	0.76	0.74	271.17	11.14	-543.55	543.66	542.16	362.64	
500.00	500.00	492.00	492.00	0.98	0.97	271.17	11.14	-543.55	543.66	541.72	278.99	
600.00	600.00	592.00	592.00	1.21	1.19	271.17	11.14	-543.55	543.66	541.27	226.69	
700.00	700.00	692.00	692.00	1.43	1.41	271.17	11.14	-543.55	543.66	540.82	190.91	
800.00	800.00	792.00	792.00	1.66	1.64	271.17	11.14	-543.55	543.66	540.37	164.88	
900.00	900.00	892.00	892.00	1.88	1.86	271.17	11.14	-543.55	543.66	539.92	145.10	
1000.00	1000.00	992.00	992.00	2.11	2.09	271.17	11.14	-543.55	543.66	539.47	129.56	
1100.00	1100.00	1092.00	1092.00	2.33	2.31	271.17	11.14	-543.55	543.66	539.02	117.02	
1200.00	1200.00	1192.00	1192.00	2.56	2.54	271.17	11.14	-543.55	543.66	538.57	106.70	
1300.00	1300.00	1292.00	1292.00	2.78	2.76	271.17	11.14	-543.55	543.66	538.12	98.05	
1400.00	1400.00	1392.00	1392.00	3.01	2.99	271.17	11.14	-543.55	543.66	537.67	90.69	
1500.00	1500.00	1492.00	1492.00	3.23	3.21	271.17	11.14	-543.55	543.66	537.22	84.37	
1600.00	1600.00	1592.00	1592.00	3.46	3.44	271.17	11.14	-543.55	543.66	536.77	78.87	
1700.00	1700.00	1692.00	1692.00	3.68	3.66	271.17	11.14	-543.55	543.66	536.32	74.04	
1800.00	1800.00	1792.00	1792.00	3.91	3.89	271.17	11.14	-543.55	543.66	535.87	69.77	
1900.00	1900.00	1892.00	1892.00	4.13	4.11	271.17	11.14	-543.55	543.66	535.42	65.96	
2000.00	2000.00	1992.00	1992.00	4.35	4.34	271.17	11.14	-543.55	543.66	534.97	62.55	
2100.00	2100.00	2092.00	2092.00	4.58	4.56	271.17	11.14	-543.55	543.66	534.52	59.47	
2200.00	2200.00	2192.00	2192.00	4.80	4.79	271.17	11.14	-543.55	543.66	534.07	56.69	
2300.00	2300.00	2292.00	2292.00	5.03	5.01	271.17	11.14	-543.55	543.66	533.62	54.15	
2400.00	2400.00	2392.00	2392.00	5.25	5.24	271.17	11.14	-543.55	543.66	533.17	51.83	
2500.00	2500.00	2492.00	2492.00	5.48	5.46	271.17	11.14	-543.55	543.66	532.72	49.70	
2600.00	2600.00	2592.00	2592.00	5.70	5.69	271.17	11.14	-543.55	543.66	532.28	47.74	
2700.00	2700.00	2692.00	2692.00	5.93	5.91	271.17	11.14	-543.55	543.66	531.83	45.92	
2800.00	2800.00	2792.00	2792.00	6.15	6.13	271.17	11.14	-543.55	543.66	531.38	44.24	
2900.00	2900.00	2892.00	2892.00	6.38	6.36	271.17	11.14	-543.55	543.66	530.93	42.68	
3000.00	3000.00	2992.00	2992.00	6.60	6.58	271.17	11.14	-543.55	543.66	530.48	41.23	
3100.00	3100.00	3092.00	3092.00	6.83	6.81	271.17	11.14	-543.55	543.66	530.03	39.87	
3200.00	3200.00	3192.00	3192.00	7.05	7.03	271.17	11.14	-543.55	543.66	529.58	38.60	
3300.00	3300.00	3292.00	3292.00	7.28	7.26	271.17	11.14	-543.55	543.66	529.13	37.40	
3400.00	3400.00	3392.00	3392.00	7.50	7.48	271.17	11.14	-543.55	543.66	528.68	36.28	
3500.00	3500.00	3492.00	3492.00	7.73	7.71	271.17	11.14	-543.55	543.66	528.23	35.22	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013

Time: 10:25:44

Page: 2

Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit #140H
Well: #140H
Wellpath: 1 VO Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor	
3600.00	3600.00	3592.00	3592.00	7.95	7.93	271.17	11.14	-543.55	543.66	527.78	34.23	
3700.00	3700.00	3692.00	3692.00	8.18	8.16	271.17	11.14	-543.55	543.66	527.33	33.28	
3800.00	3800.00	3792.00	3792.00	8.40	8.38	271.17	11.14	-543.55	543.66	526.88	32.39	
3900.00	3900.00	3892.00	3892.00	8.63	8.61	271.17	11.14	-543.55	543.66	526.43	31.55	
4000.00	4000.00	3992.00	3992.00	8.85	8.83	271.17	11.14	-543.55	543.66	525.98	30.75	
4100.00	4100.00	4092.00	4092.00	9.07	9.06	271.17	11.14	-543.55	543.66	525.53	29.98	
4200.00	4200.00	4192.00	4192.00	9.30	9.28	271.17	11.14	-543.55	543.66	525.08	29.26	
4300.00	4300.00	4292.00	4292.00	9.52	9.51	271.17	11.14	-543.55	543.66	524.63	28.57	
4400.00	4400.00	4392.00	4392.00	9.75	9.73	271.17	11.14	-543.55	543.66	524.18	27.91	
4500.00	4500.00	4492.00	4492.00	9.97	9.96	271.17	11.14	-543.55	543.66	523.73	27.28	
4600.00	4600.00	4592.00	4592.00	10.20	10.18	271.17	11.14	-543.55	543.66	523.28	26.68	
4700.00	4700.00	4692.00	4692.00	10.42	10.41	271.17	11.14	-543.55	543.66	522.84	26.10	
4800.00	4800.00	4792.00	4792.00	10.65	10.63	271.17	11.14	-543.55	543.66	522.39	25.55	
4900.00	4900.00	4892.00	4892.00	10.87	10.86	271.17	11.14	-543.55	543.66	521.94	25.02	
5000.00	5000.00	4992.00	4992.00	11.10	11.08	271.17	11.14	-543.55	543.66	521.49	24.51	
5100.00	5100.00	5092.00	5092.00	11.32	11.30	271.17	11.14	-543.55	543.66	521.04	24.03	
5200.00	5200.00	5192.00	5192.00	11.55	11.53	271.17	11.14	-543.55	543.66	520.59	23.56	
5300.00	5300.00	5292.00	5292.00	11.77	11.75	271.17	11.14	-543.55	543.66	520.14	23.11	
5400.00	5400.00	5392.00	5392.00	12.00	11.98	271.17	11.14	-543.55	543.66	519.69	22.68	
5500.00	5500.00	5492.00	5492.00	12.22	12.20	271.17	11.14	-543.55	543.66	519.24	22.26	
5600.00	5600.00	5592.00	5592.00	12.45	12.43	271.17	11.14	-543.55	543.66	518.79	21.86	
5700.00	5699.95	5691.95	5691.95	12.66	12.65	171.86	11.14	-543.55	546.26	520.96	21.60	
5755.38	5755.21	5747.21	5747.21	12.77	12.78	171.90	11.14	-543.55	549.92	524.41	21.56	
5800.00	5799.68	5791.68	5791.68	12.85	12.88	171.95	11.14	-543.55	553.51	527.82	21.54	
5900.00	5899.35	5891.35	5891.35	13.06	13.10	172.07	11.14	-543.55	561.56	535.45	21.51	
6000.00	5999.02	5991.02	5991.02	13.26	13.33	172.18	11.14	-543.55	569.61	543.08	21.47	
6100.00	6098.69	6090.69	6090.69	13.46	13.55	172.29	11.14	-543.55	577.66	550.71	21.43	
6200.00	6198.36	6190.36	6190.36	13.67	13.77	172.40	11.14	-543.55	585.72	558.34	21.40	
6300.00	6298.03	6290.03	6290.03	13.88	14.00	172.50	11.14	-543.55	593.77	565.98	21.36	
6400.00	6397.70	6389.70	6389.70	14.09	14.22	172.60	11.14	-543.55	601.83	573.61	21.33	
6500.00	6497.37	6489.37	6489.37	14.31	14.45	172.70	11.14	-543.55	609.89	581.24	21.29	
6600.00	6597.03	6589.03	6589.03	14.52	14.67	172.80	11.14	-543.55	617.95	588.88	21.26	
6700.00	6696.70	6688.70	6688.70	14.74	14.89	172.89	11.14	-543.55	626.02	596.52	21.22	
6800.00	6796.37	6788.37	6788.37	14.96	15.12	172.98	11.14	-543.55	634.08	604.16	21.19	
6900.00	6896.04	6888.04	6888.04	15.18	15.34	173.07	11.14	-543.55	642.15	611.79	21.15	
7000.00	6995.71	6987.71	6987.71	15.40	15.57	173.16	11.14	-543.55	650.22	619.43	21.12	
7100.00	7095.38	7087.38	7087.38	15.62	15.79	173.24	11.14	-543.55	658.29	627.07	21.09	
7200.00	7195.05	7187.05	7187.05	15.85	16.01	173.32	11.14	-543.55	666.36	634.71	21.06	
7300.00	7294.72	7286.72	7286.72	16.08	16.24	173.40	11.14	-543.55	674.43	642.35	21.02	
7400.00	7394.39	7386.39	7386.39	16.30	16.46	173.48	11.14	-543.55	682.51	649.99	20.99	
7500.00	7494.06	7486.06	7486.06	16.53	16.69	173.56	11.14	-543.55	690.58	657.64	20.96	
7600.00	7593.73	7585.73	7585.73	16.76	16.91	173.63	11.14	-543.55	698.66	665.28	20.93	
7700.00	7693.40	7685.40	7685.40	16.99	17.13	173.71	11.14	-543.55	706.74	672.92	20.90	
7800.00	7793.07	7785.07	7785.07	17.22	17.36	173.78	11.14	-543.55	714.81	680.57	20.87	
7900.00	7892.73	7884.73	7884.73	17.46	17.58	173.85	11.14	-543.55	722.89	688.21	20.84	
8000.00	7992.40	7984.40	7984.40	17.69	17.81	173.92	11.14	-543.55	730.97	695.85	20.81	
8100.00	8092.07	8084.07	8084.07	17.93	18.05	174.00	-28.63	-339.21	690.54	656.90	20.53	
8200.00	8191.74	8183.74	8183.74	18.16	18.28	174.08	-23.44	-288.03	633.53	599.49	18.61	
8300.00	8291.41	8283.41	8283.41	18.40	18.52	174.16	-8.79	-239.42	577.02	542.54	16.74	
8400.00	8391.08	8383.08	8383.08	18.64	18.76	174.24	13.37	-195.20	522.05	487.00	14.90	
8500.00	8490.75	8482.75	8482.75	18.88	19.00	174.32	40.58	-156.35	470.55	434.71	13.13	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath#:

Date: 5/9/2013

Time: 10:25:44

Page: 3

Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit #140H
Well: #140H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
8600.00	8590.42	8938.78	8785.84	19.12	20.74	187.32	70.47	-123.12	425.49	388.55	11.52	
8700.00	8690.09	8992.51	8819.96	19.36	20.91	192.98	101.13	-95.18	390.92	352.66	10.22	
8800.00	8789.76	9039.98	8848.35	19.60	21.06	198.59	131.23	-71.94	371.56	331.98	9.39	
8900.00	8889.43	9081.78	8871.86	19.84	21.18	203.83	159.94	-52.71	371.30	330.83	9.17	
9000.00	8989.10	9118.56	8891.31	20.08	21.30	208.52	186.81	-36.81	391.41	350.69	9.61	
9100.00	9088.77	9150.00	8906.96	20.32	21.40	212.47	210.89	-24.03	429.93	389.51	10.64	
9200.00	9188.43	9179.63	8920.85	20.57	21.49	216.09	234.47	-12.68	483.13	443.28	12.12	
9300.00	9288.10	9200.00	8929.90	20.81	21.55	218.47	251.15	-5.29	547.25	507.99	13.94	
9400.00	9387.77	9227.63	8941.52	21.06	21.64	221.55	274.36	4.18	619.13	580.44	16.00	
9500.00	9487.44	9250.00	8950.35	21.30	21.71	223.91	293.61	11.37	696.72	658.48	18.22	
9600.00	9587.11	9265.94	8956.32	21.55	21.76	225.49	307.58	16.23	778.44	740.52	20.53	
9700.00	9686.78	9282.27	8962.15	21.79	21.81	227.05	322.06	20.98	863.27	825.59	22.91	
9800.00	9786.45	9300.00	8968.15	22.04	21.86	228.64	338.02	25.86	950.48	912.98	25.35	
9803.21	9789.65	9300.00	8968.15	22.05	21.86	228.64	338.02	25.86	953.30	915.81	25.43	
9850.00	9836.26	9300.00	8968.15	22.12	21.86	282.44	338.02	25.86	994.02	956.47	26.47	
9900.00	9885.77	9313.32	8972.44	22.10	21.90	308.85	350.14	29.34	1036.04	998.63	27.69	
9950.00	9934.60	9323.12	8975.47	21.98	21.94	320.83	359.13	31.80	1076.39	1039.20	28.94	
10000.00	9982.39	9333.91	8978.68	21.76	21.97	327.80	369.09	34.41	1114.86	1077.99	30.24	
10050.00	10028.77	9350.00	8983.22	21.75	22.02	332.58	384.08	38.09	1151.28	1114.88	31.63	
10100.00	10073.39	9350.00	8983.22	21.86	22.02	335.62	384.08	38.09	1185.52	1149.54	32.94	
10150.00	10115.90	9371.24	8988.76	21.97	22.09	338.33	404.09	42.59	1217.28	1181.96	34.46	
10200.00	10155.99	9385.08	8992.10	22.08	22.13	340.30	417.25	45.28	1246.63	1211.96	35.96	
10250.00	10193.35	9400.00	8995.45	22.21	22.18	341.85	431.53	47.99	1273.37	1239.43	37.51	
10300.00	10227.69	9414.44	8998.44	22.35	22.23	343.09	445.45	50.40	1297.41	1264.20	39.06	
10350.00	10258.76	9429.83	9001.36	22.51	22.28	344.08	460.38	52.75	1318.66	1286.18	40.61	
10400.00	10286.31	9450.00	9004.76	22.69	22.34	344.92	480.07	55.49	1337.05	1305.34	42.16	
10450.00	10310.14	9450.00	9004.76	22.89	22.34	345.44	480.07	55.49	1352.60	1321.49	43.47	
10500.00	10330.06	9478.12	9008.70	23.11	22.43	346.01	507.73	58.63	1364.88	1334.44	44.84	
10550.00	10345.93	9500.00	9011.11	23.36	22.50	346.40	529.39	60.54	1374.29	1344.42	46.00	
10600.00	10357.63	9500.00	9011.11	23.63	22.50	346.60	529.39	60.54	1380.70	1351.17	46.76	
10650.00	10365.05	9528.39	9013.38	23.93	22.60	346.79	557.63	62.31	1383.76	1354.54	47.35	
10700.00	10368.16	9550.00	9014.45	24.26	22.67	346.84	579.20	63.13	1383.86	1354.78	47.58	
10716.45	10368.23	9550.00	9014.45	24.37	22.67	346.83	579.20	63.13	1383.19	1354.10	47.55	
10800.00	10367.40	9580.12	9015.00	24.99	22.77	346.84	609.31	63.48	1380.67	1351.45	47.25	
10900.00	10366.40	9677.49	9015.00	25.83	23.58	346.82	706.68	63.16	1379.77	1349.95	46.28	
11000.00	10365.41	9777.49	9015.00	26.77	24.51	346.79	806.68	62.84	1378.88	1348.38	45.22	
11100.00	10364.41	9877.48	9015.00	27.80	25.53	346.77	906.67	62.51	1377.98	1346.74	44.10	
11200.00	10363.42	9977.48	9015.00	28.91	26.64	346.75	1006.66	62.18	1377.09	1345.03	42.95	
11300.00	10362.42	10077.47	9015.00	30.09	27.82	346.73	1106.66	61.86	1376.20	1343.25	41.77	
11400.00	10361.43	10177.47	9015.00	31.32	29.07	346.70	1206.65	61.53	1375.30	1341.42	40.59	
11500.00	10360.44	10277.46	9015.00	32.62	30.38	346.68	1306.65	61.20	1374.41	1339.53	39.40	
11600.00	10359.44	10377.45	9015.00	33.96	31.73	346.66	1406.64	60.88	1373.52	1337.59	38.24	
11700.00	10358.45	10477.45	9015.00	35.35	33.14	346.63	1506.63	60.55	1372.62	1335.61	37.09	
11800.00	10357.45	10577.44	9015.00	36.77	34.58	346.61	1606.63	60.22	1371.73	1333.59	35.96	
11900.00	10356.46	10677.44	9015.00	38.23	36.06	346.59	1706.62	59.90	1370.84	1331.53	34.87	
12000.00	10355.46	10777.43	9015.00	39.72	37.57	346.57	1806.62	59.57	1369.95	1329.43	33.81	
12100.00	10354.47	10877.43	9015.00	41.23	39.10	346.54	1906.61	59.24	1369.06	1327.30	32.79	
12200.00	10353.47	10977.42	9015.00	42.77	40.66	346.52	2006.60	58.92	1368.17	1325.15	31.80	
12300.00	10352.48	11077.42	9015.00	44.33	42.24	346.50	2106.60	58.59	1367.27	1322.96	30.85	
12400.00	10351.48	11177.41	9015.00	45.92	43.84	346.47	2206.59	58.26	1366.38	1320.75	29.94	
12500.00	10350.49	11277.41	9015.00	47.51	45.46	346.45	2306.59	57.94	1365.49	1318.52	29.07	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013 Time: 10:25:44 Page: 4
Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit #140H
Well: #140H
Wellpath: 1 V0 Plan: Plan #2 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 Edge Distance ft	Separation Distance ft	Factor	Warning
12600.00	10349.49	11377.40	9015.00	49.13	47.09	346.43	2406.58	57.61	1364.60	1316.26	28.23	
12700.00	10348.50	11477.39	9015.00	50.76	48.74	346.40	2506.57	57.28	1363.71	1313.99	27.43	
12800.00	10347.50	11577.39	9015.00	52.40	50.40	346.38	2606.57	56.96	1362.82	1311.70	26.66	
12900.00	10346.51	11677.38	9015.00	54.05	52.07	346.36	2706.56	56.63	1361.93	1309.39	25.92	
13000.00	10345.51	11777.38	9015.00	55.72	53.75	346.33	2806.56	56.30	1361.04	1307.06	25.21	
13100.00	10344.52	11877.37	9015.00	57.39	55.44	346.31	2906.55	55.98	1360.15	1304.72	24.54	
13200.00	10343.52	11977.37	9015.00	59.07	57.13	346.29	3006.54	55.65	1359.26	1302.37	23.89	
13300.00	10342.53	12077.36	9015.00	60.76	58.84	346.26	3106.54	55.33	1358.38	1300.00	23.27	
13400.00	10341.53	12177.36	9015.00	62.46	60.55	346.24	3206.53	55.00	1357.49	1297.63	22.68	
13500.00	10340.54	12277.35	9015.00	64.17	62.27	346.22	3306.53	54.67	1356.60	1295.24	22.11	
13600.00	10339.54	12377.35	9015.00	65.88	64.00	346.19	3406.52	54.35	1355.71	1292.84	21.56	
13700.00	10338.55	12477.34	9015.00	67.60	65.73	346.17	3506.51	54.02	1354.82	1290.43	21.04	
13800.00	10337.55	12577.33	9015.00	69.32	67.46	346.15	3606.51	53.69	1353.94	1288.01	20.54	
13900.00	10336.56	12677.33	9015.00	71.05	69.20	346.12	3706.50	53.37	1353.05	1285.59	20.06	
14000.00	10335.56	12777.32	9015.00	72.78	70.95	346.10	3806.50	53.04	1352.16	1283.15	19.59	
14100.00	10334.57	12877.32	9015.00	74.52	72.70	346.08	3906.49	52.71	1351.27	1280.71	19.15	
14200.00	10333.58	12977.31	9015.00	76.26	74.45	346.05	4006.48	52.39	1350.39	1278.26	18.72	
14300.00	10332.58	13077.31	9015.00	78.01	76.20	346.03	4106.48	52.06	1349.50	1275.81	18.31	
14400.00	10331.59	13177.30	9015.00	79.76	77.96	346.01	4206.47	51.73	1348.61	1273.34	17.92	
14500.00	10330.59	13277.30	9015.00	81.51	79.72	345.98	4306.47	51.41	1347.73	1270.88	17.54	
14600.00	10329.60	13377.29	9015.00	83.26	81.49	345.96	4406.46	51.08	1346.84	1268.40	17.17	
14700.00	10328.60	13477.28	9015.00	85.02	83.26	345.93	4506.45	50.75	1345.96	1265.92	16.82	
14800.00	10327.61	13577.28	9015.00	86.78	85.03	345.91	4606.45	50.43	1345.07	1263.43	16.48	
14900.00	10326.61	13677.27	9015.00	88.55	86.80	345.89	4706.44	50.10	1344.19	1260.94	16.15	

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 169H
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 Edge Distance ft	Separation Distance ft	Factor	Warning
0.00	0.00	26.00	26.00	0.00	0.02	356.91	4769.58	-257.27	4776.51			No Data
100.00	100.00	126.00	126.00	0.08	0.14	356.91	4769.58	-257.27	4776.51	4776.29	21040.64	
200.00	200.00	226.00	226.00	0.31	0.37	356.91	4769.58	-257.27	4776.51	4775.84	7060.15	
300.00	300.00	326.00	326.00	0.53	0.59	356.91	4769.58	-257.27	4776.51	4775.39	4241.73	
400.00	400.00	426.00	426.00	0.76	0.82	356.91	4769.58	-257.27	4776.51	4774.94	3031.53	
500.00	500.00	526.00	526.00	0.98	1.04	356.91	4769.58	-257.27	4776.51	4774.49	2358.61	
600.00	600.00	626.00	626.00	1.21	1.27	356.91	4769.58	-257.27	4776.51	4774.04	1930.16	
700.00	700.00	726.00	726.00	1.43	1.49	356.91	4769.58	-257.27	4776.51	4773.59	1633.44	
800.00	800.00	826.00	826.00	1.66	1.72	356.91	4769.58	-257.27	4776.51	4773.14	1415.79	
900.00	900.00	926.00	926.00	1.88	1.94	356.91	4769.58	-257.27	4776.51	4772.69	1249.33	
1000.00	1000.00	1026.00	1026.00	2.11	2.17	356.91	4769.58	-257.27	4776.51	4772.24	1117.89	
1100.00	1100.00	1126.00	1126.00	2.33	2.39	356.91	4769.58	-257.27	4776.51	4771.79	1011.47	
1200.00	1200.00	1226.00	1226.00	2.56	2.62	356.91	4769.58	-257.27	4776.51	4771.34	923.56	
1300.00	1300.00	1326.00	1326.00	2.78	2.84	356.91	4769.58	-257.27	4776.51	4770.89	849.70	
1400.00	1400.00	1426.00	1426.00	3.01	3.06	356.91	4769.58	-257.27	4776.51	4770.44	786.78	
1500.00	1500.00	1526.00	1526.00	3.23	3.29	356.91	4769.58	-257.27	4776.51	4769.99	732.54	
1600.00	1600.00	1626.00	1626.00	3.46	3.51	356.91	4769.58	-257.27	4776.51	4769.54	685.30	
1700.00	1700.00	1726.00	1726.00	3.68	3.74	356.91	4769.58	-257.27	4776.51	4769.09	643.78	
1800.00	1800.00	1826.00	1826.00	3.91	3.96	356.91	4769.58	-257.27	4776.51	4768.64	607.00	
1900.00	1900.00	1926.00	1926.00	4.13	4.19	356.91	4769.58	-257.27	4776.51	4768.19	574.20	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013 Time: 10:25:44 Page: 5
Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 169H
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 Edge Distance ft	Separation Distance ft	Factor	Warning
2000.00	2000.00	2026.00	2026.00	4.35	4.41	356.91	4769.58	-257.27	4776.51	4767.75	544.76	
2100.00	2100.00	2126.00	2126.00	4.58	4.64	356.91	4769.58	-257.27	4776.51	4767.30	518.19	
2200.00	2200.00	2226.00	2226.00	4.80	4.86	356.91	4769.58	-257.27	4776.51	4766.85	494.10	
2300.00	2300.00	2326.00	2326.00	5.03	5.09	356.91	4769.58	-257.27	4776.51	4766.40	472.14	
2400.00	2400.00	2426.00	2426.00	5.25	5.31	356.91	4769.58	-257.27	4776.51	4765.95	452.05	
2500.00	2500.00	2526.00	2526.00	5.48	5.54	356.91	4769.58	-257.27	4776.51	4765.50	433.61	
2600.00	2600.00	2626.00	2626.00	5.70	5.76	356.91	4769.58	-257.27	4776.51	4765.05	416.61	
2700.00	2700.00	2726.00	2726.00	5.93	5.99	356.91	4769.58	-257.27	4776.51	4764.60	400.89	
2800.00	2800.00	2826.00	2826.00	6.15	6.21	356.91	4769.58	-257.27	4776.51	4764.15	386.31	
2900.00	2900.00	2926.00	2926.00	6.38	6.44	356.91	4769.58	-257.27	4776.51	4763.70	372.76	
3000.00	3000.00	3026.00	3026.00	6.60	6.66	356.91	4769.58	-257.27	4776.51	4763.25	360.13	
3100.00	3100.00	3126.00	3126.00	6.83	6.89	356.91	4769.58	-257.27	4776.51	4762.80	348.32	
3200.00	3200.00	3226.00	3226.00	7.05	7.11	356.91	4769.58	-257.27	4776.51	4762.35	337.26	
3300.00	3300.00	3326.00	3326.00	7.28	7.34	356.91	4769.58	-257.27	4776.51	4761.90	326.89	
3400.00	3400.00	3426.00	3426.00	7.50	7.56	356.91	4769.58	-257.27	4776.51	4761.45	317.13	
3500.00	3500.00	12486.17	8200.00	7.73	86.31	71.97	129.78	398.63	4692.76	4650.39	110.74	
3600.00	3600.00	12486.17	8200.00	7.95	86.31	71.97	129.78	398.63	4593.17	4550.55	107.77	
3700.00	3700.00	12486.17	8200.00	8.18	86.31	71.97	129.78	398.63	4493.60	4450.73	104.82	
3800.00	3800.00	12486.17	8200.00	8.40	86.31	71.97	129.78	398.63	4394.04	4350.93	101.91	
3900.00	3900.00	12486.17	8200.00	8.63	86.31	71.97	129.78	398.63	4294.51	4251.14	99.03	
4000.00	4000.00	12486.17	8200.00	8.85	86.31	71.97	129.78	398.63	4195.00	4151.38	96.17	
4100.00	4100.00	12486.17	8200.00	9.07	86.31	71.97	129.78	398.63	4095.51	4051.64	93.35	
4200.00	4200.00	12486.17	8200.00	9.30	86.31	71.97	129.78	398.63	3996.05	3951.92	90.55	
4300.00	4300.00	12486.17	8200.00	9.52	86.31	71.97	129.78	398.63	3896.62	3852.23	87.78	
4400.00	4400.00	12486.17	8200.00	9.75	86.31	71.97	129.78	398.63	3797.21	3752.56	85.04	
4500.00	4500.00	12486.17	8200.00	9.97	86.31	71.97	129.78	398.63	3697.84	3652.92	82.32	
4600.00	4600.00	12486.17	8200.00	10.20	86.31	71.97	129.78	398.63	3598.50	3553.32	79.63	
4700.00	4700.00	12486.17	8200.00	10.42	86.31	71.97	129.78	398.63	3499.20	3453.74	76.97	
4800.00	4800.00	12486.17	8200.00	10.65	86.31	71.97	129.78	398.63	3399.94	3354.20	74.33	
4900.00	4900.00	12486.17	8200.00	10.87	86.31	71.97	129.78	398.63	3300.73	3254.71	71.72	
5000.00	5000.00	12486.17	8200.00	11.10	86.31	71.97	129.78	398.63	3201.57	3155.25	69.13	
5100.00	5100.00	12486.17	8200.00	11.32	86.31	71.97	129.78	398.63	3102.45	3055.84	66.56	
5200.00	5200.00	12486.17	8200.00	11.55	86.31	71.97	129.78	398.63	3003.40	2956.49	64.02	
5300.00	5300.00	12486.17	8200.00	11.77	86.31	71.97	129.78	398.63	2904.41	2857.18	61.50	
5400.00	5400.00	12486.17	8200.00	12.00	86.31	71.97	129.78	398.63	2805.50	2757.95	59.00	
5500.00	5500.00	12486.17	8200.00	12.22	86.31	71.97	129.78	398.63	2706.66	2658.77	56.52	
5600.00	5600.00	12486.17	8200.00	12.45	86.31	71.97	129.78	398.63	2607.92	2559.68	54.07	
5700.00	5699.95	12486.17	8200.00	12.66	86.31	321.19	129.78	398.63	2508.93	2460.37	51.67	
5755.38	5755.21	12486.17	8200.00	12.77	86.31	311.10	129.78	398.63	2453.90	2405.20	50.39	
5800.00	5799.68	12486.17	8200.00	12.85	86.31	311.10	129.78	398.63	2409.53	2360.70	49.35	
5900.00	5899.35	12486.17	8200.00	13.06	86.31	311.10	129.78	398.63	2310.12	2261.01	47.04	
6000.00	5999.02	12486.17	8200.00	13.26	86.31	311.10	129.78	398.63	2210.76	2161.36	44.75	
6100.00	6098.69	12486.17	8200.00	13.46	86.31	311.10	129.78	398.63	2111.47	2061.76	42.48	
6200.00	6198.36	12486.17	8200.00	13.67	86.31	311.10	129.78	398.63	2012.24	1962.21	40.22	
6300.00	6298.03	12486.17	8200.00	13.88	86.31	311.10	129.78	398.63	1913.09	1862.72	37.98	
6400.00	6397.70	12486.17	8200.00	14.09	86.31	311.10	129.78	398.63	1814.04	1763.30	35.75	
6500.00	6497.37	12486.17	8200.00	14.31	86.31	311.10	129.78	398.63	1715.10	1663.97	33.55	
6600.00	6597.03	12486.17	8200.00	14.52	86.31	311.10	129.78	398.63	1616.28	1564.74	31.36	
6700.00	6696.70	12486.17	8200.00	14.74	86.31	311.10	129.78	398.63	1517.63	1465.63	29.19	
6800.00	6796.37	12486.17	8200.00	14.96	86.31	311.10	129.78	398.63	1419.16	1366.66	27.03	
6900.00	6896.04	12486.17	8200.00	15.18	86.31	311.10	129.78	398.63	1320.92	1267.87	24.90	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013 Time: 10:25:44 Page: 6
Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0
Db: Sybase

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 169H
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 Edge Distance ft	Separation Distance ft	Factor	Warning
7000.00	6995.71	12486.17	8200.00	15.40	86.31	311.10	129.78	398.63	1222.97	1169.28	22.78	
7100.00	7095.38	12486.17	8200.00	15.62	86.31	311.10	129.78	398.63	1125.37	1070.95	20.68	
7200.00	7195.05	12486.17	8200.00	15.85	86.31	311.10	129.78	398.63	1028.24	972.96	18.60	
7300.00	7294.72	12486.17	8200.00	16.08	86.31	311.10	129.78	398.63	931.72	875.39	16.54	
7400.00	7394.39	12486.17	8200.00	16.30	86.31	311.10	129.78	398.63	836.01	778.39	14.51	
7500.00	7494.06	12486.17	8200.00	16.53	86.31	311.10	129.78	398.63	741.44	682.16	12.51	
7600.00	7593.73	12486.17	8200.00	16.76	86.31	311.10	129.78	398.63	648.50	587.00	10.54	
7700.00	7693.40	12486.17	8200.00	16.99	86.31	311.10	129.78	398.63	558.01	493.42	8.64	
7800.00	7793.07	12486.17	8200.00	17.22	86.31	311.10	129.78	398.63	471.37	402.33	6.83	
7900.00	7892.73	12486.17	8200.00	17.46	86.31	311.10	129.78	398.63	391.16	315.44	5.17	
8000.00	7992.40	12486.17	8200.00	17.69	86.31	311.10	129.78	398.63	322.22	236.54	3.76	
8100.00	8092.07	12486.17	8200.00	17.93	86.31	311.10	129.78	398.63	273.20	175.02	2.78	
8200.00	8191.74	12486.17	8200.00	18.16	86.31	311.10	129.78	398.63	255.85	151.70	2.46	
8300.00	8291.41	12486.17	8200.00	18.40	86.31	311.10	129.78	398.63	276.18	181.57	2.92	
8400.00	8391.08	12486.17	8200.00	18.64	86.31	311.10	129.78	398.63	327.25	246.39	4.05	
8500.00	8490.75	12486.17	8200.00	18.88	86.31	311.10	129.78	398.63	397.38	326.30	5.59	
8600.00	8590.42	12486.17	8200.00	19.12	86.31	311.10	129.78	398.63	478.26	413.15	7.35	
8700.00	8690.09	12486.17	8200.00	19.36	86.31	311.10	129.78	398.63	565.28	503.76	9.19	
8800.00	8789.76	12486.17	8200.00	19.60	86.31	311.10	129.78	398.63	656.02	596.68	11.06	
8900.00	8889.43	12486.17	8200.00	19.84	86.31	311.10	129.78	398.63	749.12	691.13	12.92	
9000.00	8989.10	12486.17	8200.00	20.08	86.31	311.10	129.78	398.63	843.80	786.64	14.76	
9100.00	9088.77	12486.17	8200.00	20.32	86.31	311.10	129.78	398.63	939.58	882.94	16.59	
9200.00	9188.43	12486.17	8200.00	20.57	86.31	311.10	129.78	398.63	1036.16	979.82	18.39	
9300.00	9288.10	12486.17	8200.00	20.81	86.31	311.10	129.78	398.63	1133.34	1077.15	20.17	
9400.00	9387.77	12486.17	8200.00	21.06	86.31	311.10	129.78	398.63	1230.96	1174.83	21.93	
9500.00	9487.44	12486.17	8200.00	21.30	86.31	311.10	129.78	398.63	1328.94	1272.80	23.67	
9600.00	9587.11	12486.17	8200.00	21.55	86.31	311.10	129.78	398.63	1427.20	1370.99	25.39	
9700.00	9686.78	12486.17	8200.00	21.79	86.31	311.10	129.78	398.63	1525.69	1469.37	27.09	
9800.00	9786.45	12486.17	8200.00	22.04	86.31	311.10	129.78	398.63	1624.36	1567.91	28.78	
9803.21	9789.65	12486.17	8200.00	22.05	86.31	311.10	129.78	398.63	1627.53	1571.07	28.83	
9850.00	9836.26	12486.17	8200.00	22.12	86.31	344.08	129.78	398.63	1673.52	1616.83	29.52	
9900.00	9885.77	12486.17	8200.00	22.10	86.31	356.75	129.78	398.63	1721.97	1665.27	30.37	
9950.00	9934.60	12486.17	8200.00	21.98	86.31	0.16	129.78	398.63	1769.44	1712.85	31.27	
10000.00	9982.39	12486.17	8200.00	21.76	86.31	1.20	129.78	398.63	1815.63	1759.29	32.23	
10050.00	10028.77	12486.17	8200.00	21.75	86.31	1.51	129.78	398.63	1860.31	1804.31	33.22	
10100.00	10073.39	12486.17	8200.00	21.86	86.31	1.56	129.78	398.63	1903.26	1847.68	34.24	
10150.00	10115.90	12486.17	8200.00	21.97	86.31	1.51	129.78	398.63	1944.28	1889.19	35.29	
10200.00	10155.99	12486.17	8200.00	22.08	86.31	1.43	129.78	398.63	1983.18	1928.65	36.37	
10250.00	10193.35	12486.17	8200.00	22.21	86.31	1.33	129.78	398.63	2019.80	1965.87	37.45	
10300.00	10227.69	12473.93	8200.00	22.35	86.09	1.19	142.02	398.63	2053.95	2000.74	38.60	
10350.00	10258.76	12434.86	8200.00	22.51	85.39	1.01	181.09	398.63	2084.97	2032.68	39.87	
10400.00	10286.31	12393.21	8200.00	22.69	84.65	0.87	222.74	398.63	2112.49	2061.12	41.12	
10450.00	10310.14	12349.32	8200.00	22.89	83.87	0.76	266.63	398.63	2136.29	2085.82	42.33	
10500.00	10330.06	12303.51	8200.00	23.11	83.05	0.68	312.44	398.63	2156.20	2106.58	43.46	
10550.00	10345.93	12256.13	8200.00	23.36	82.21	0.62	359.82	398.62	2172.05	2123.21	44.47	
10600.00	10357.63	12207.54	8200.00	23.63	81.34	0.58	408.41	398.62	2183.73	2135.55	45.33	
10650.00	10365.05	12158.11	8200.00	23.93	80.46	0.55	457.84	398.62	2191.15	2143.51	45.99	
10700.00	10368.16	12108.23	8200.00	24.26	79.58	0.54	507.72	398.62	2194.26	2147.00	46.43	
10716.45	10368.23	12091.78	8200.00	24.37	79.29	0.54	524.17	398.62	2194.33	2147.16	46.53	
10800.00	10367.40	12008.23	8200.00	24.99	77.80	0.54	607.72	398.62	2193.50	2146.76	46.94	
10900.00	10366.40	11908.24	8200.00	25.83	76.03	0.54	707.71	398.61	2192.50	2146.25	47.40	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013

Time: 10:25:44

Page: 7

Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 169H
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 Edge Distance ft	Separation Distance ft	Factor	Warning
11000.00	10365.41	11808.24	8200.00	26.77	74.26	0.54	807.71	398.61	2191.51	2145.71	47.85	
11100.00	10364.41	11708.25	8200.00	27.80	72.49	0.54	907.70	398.61	2190.51	2145.13	48.27	
11200.00	10363.42	11608.25	8200.00	28.91	70.73	0.54	1007.70	398.61	2189.52	2144.53	48.67	
11300.00	10362.42	11508.26	8200.00	30.09	68.96	0.54	1107.69	398.60	2188.52	2143.89	49.04	
11400.00	10361.43	11408.26	8200.00	31.32	67.20	0.54	1207.69	398.60	2187.53	2143.23	49.38	
11500.00	10360.44	11308.27	8200.00	32.62	65.45	0.54	1307.68	398.60	2186.53	2142.54	49.71	
11600.00	10359.44	11208.27	8200.00	33.96	63.70	0.54	1407.68	398.60	2185.54	2141.83	50.00	
11700.00	10358.45	11108.28	8200.00	35.35	61.95	0.54	1507.67	398.59	2184.54	2141.10	50.28	
11800.00	10357.45	11008.28	8200.00	36.77	60.21	0.54	1607.67	398.59	2183.55	2140.34	50.53	
11900.00	10356.46	10908.29	8200.00	38.23	58.47	0.54	1707.66	398.59	2182.55	2139.56	50.76	
12000.00	10355.46	10808.29	8200.00	39.72	56.74	0.54	1807.66	398.59	2181.56	2138.76	50.97	
12100.00	10354.47	10708.30	8200.00	41.23	55.02	0.54	1907.65	398.58	2180.56	2137.94	51.15	
12200.00	10353.47	10608.30	8200.00	42.77	53.30	0.54	2007.65	398.58	2179.57	2137.10	51.32	
12300.00	10352.48	10508.31	8200.00	44.33	51.59	0.55	2107.64	398.58	2178.57	2136.24	51.46	
12400.00	10351.48	10408.31	8200.00	45.92	49.88	0.55	2207.64	398.57	2177.58	2135.36	51.58	
12500.00	10350.49	10308.32	8200.00	47.51	48.19	0.55	2307.63	398.57	2176.59	2134.47	51.68	
12600.00	10349.49	10208.32	8200.00	49.13	46.51	0.55	2407.63	398.57	2175.59	2133.56	51.76	
12700.00	10348.50	10108.33	8200.00	50.76	44.83	0.55	2507.62	398.57	2174.60	2132.63	51.82	
12800.00	10347.50	10008.33	8200.00	52.40	43.17	0.55	2607.62	398.56	2173.60	2131.68	51.85	
12900.00	10346.51	9908.34	8200.00	54.05	41.52	0.55	2707.61	398.56	2172.61	2130.72	51.86	
13000.00	10345.51	9808.34	8200.00	55.72	39.89	0.55	2807.61	398.56	2171.61	2129.73	51.85	
13100.00	10344.52	9708.35	8200.00	57.39	38.28	0.55	2907.60	398.56	2170.62	2128.73	51.82	
13200.00	10343.52	9608.35	8200.00	59.07	36.68	0.55	3007.60	398.55	2169.62	2127.71	51.77	
13300.00	10342.53	9508.36	8200.00	60.76	35.11	0.55	3107.59	398.55	2168.63	2126.67	51.68	
13400.00	10341.53	9408.36	8200.00	62.46	33.57	0.55	3207.59	398.55	2167.63	2125.60	51.57	
13500.00	10340.54	9308.37	8200.00	64.17	32.05	0.55	3307.58	398.55	2166.64	2124.51	51.44	
13600.00	10339.54	9208.37	8200.00	65.88	30.56	0.55	3407.58	398.54	2165.64	2123.40	51.27	
13700.00	10338.55	9108.38	8200.00	67.60	29.12	0.55	3507.57	398.54	2164.65	2122.26	51.07	
13800.00	10337.55	9008.38	8200.00	69.32	27.72	0.55	3607.57	398.54	2163.65	2121.09	50.84	
13900.00	10336.56	8908.39	8200.00	71.05	26.37	0.55	3707.56	398.53	2162.66	2119.89	50.57	
14000.00	10335.56	8808.39	8200.00	72.78	25.08	0.55	3807.56	398.53	2161.66	2118.66	50.26	
14100.00	10334.57	8708.40	8200.00	74.52	23.86	0.55	3907.55	398.53	2160.67	2117.38	49.92	
14200.00	10333.58	8625.37	8200.00	76.26	22.91	0.55	3990.58	398.53	2159.74	2116.08	49.47	
14300.00	10332.58	8600.00	8199.46	78.01	22.69	0.54	4015.94	398.37	2161.16	2116.84	48.76	
14400.00	10331.59	8578.45	8198.15	79.76	22.52	0.53	4037.45	398.00	2166.21	2121.17	48.09	
14500.00	10330.59	8550.00	8195.24	81.51	22.28	0.51	4065.73	397.18	2174.92	2129.11	47.47	
14600.00	10329.60	8550.00	8195.24	83.26	22.28	0.51	4065.73	397.18	2187.31	2140.84	47.06	
14700.00	10328.60	8500.00	8186.86	85.02	21.90	0.45	4114.95	394.80	2203.07	2155.55	46.36	
14800.00	10327.61	8500.00	8186.86	86.78	21.90	0.45	4114.95	394.80	2222.10	2173.91	46.11	
14900.00	10326.61	8473.35	8180.71	88.55	21.72	0.40	4140.82	393.06	2244.67	2195.52	45.67	

Site: Cotton Draw Unit 219H
Well: Cotton Draw Unit 219H
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 Edge Distance ft	Separation Distance ft	Factor	Warning
0.00	0.00	2.00	2.00	0.00	0.00	270.20	0.17	-49.94	49.94	49.94	29625.05	
100.00	100.00	102.00	102.00	0.08	0.09	270.20	0.17	-49.94	49.94	49.77	288.56	
200.00	200.00	202.00	202.00	0.31	0.31	270.20	0.17	-49.94	49.94	49.32	80.21	
300.00	300.00	302.00	302.00	0.53	0.54	270.20	0.17	-49.94	49.94	48.87	46.58	
400.00	400.00	402.00	402.00	0.76	0.76	270.20	0.17	-49.94	49.94	48.42	32.82	



Weatherford Anticollision Report



Weatherford®

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013

Time: 10:25:44

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Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit 219H
Well: Cotton Draw Unit 219H
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			
500.00	500.00	502.00	502.00	0.98	0.99	270.20	0.17	-49.94	49.94	47.97	25.33		
600.00	600.00	602.00	602.00	1.21	1.21	270.20	0.17	-49.94	49.94	47.52	20.63		
700.00	700.00	702.00	702.00	1.43	1.44	270.20	0.17	-49.94	49.94	47.07	17.40		
800.00	800.00	802.00	802.00	1.66	1.66	270.20	0.17	-49.94	49.94	46.62	15.04		
900.00	900.00	902.00	902.00	1.88	1.89	270.20	0.17	-49.94	49.94	46.17	13.25		
1000.00	1000.00	1002.00	1002.00	2.11	2.11	270.20	0.17	-49.94	49.94	45.72	11.84		
1100.00	1100.00	1102.00	1102.00	2.33	2.34	270.20	0.17	-49.94	49.94	45.27	10.70		
1200.00	1200.00	1202.00	1202.00	2.56	2.56	270.20	0.17	-49.94	49.94	44.82	9.76		
1300.00	1300.00	1302.00	1302.00	2.78	2.79	270.20	0.17	-49.94	49.94	44.37	8.97		
1400.00	1400.00	1402.00	1402.00	3.01	3.01	270.20	0.17	-49.94	49.94	43.92	8.30		
1500.00	1500.00	1502.00	1502.00	3.23	3.24	270.20	0.17	-49.94	49.94	43.47	7.72		
1600.00	1600.00	1602.00	1602.00	3.46	3.46	270.20	0.17	-49.94	49.94	43.02	7.22		
1700.00	1700.00	1702.00	1702.00	3.68	3.69	270.20	0.17	-49.94	49.94	42.57	6.78		
1800.00	1800.00	1802.00	1802.00	3.91	3.91	270.20	0.17	-49.94	49.94	42.13	6.39		
1900.00	1900.00	1902.00	1902.00	4.13	4.13	270.20	0.17	-49.94	49.94	41.68	6.04		
2000.00	2000.00	2002.00	2002.00	4.35	4.36	270.20	0.17	-49.94	49.94	41.23	5.73		
2100.00	2100.00	2102.00	2102.00	4.58	4.58	270.20	0.17	-49.94	49.94	40.78	5.45		
2200.00	2200.00	2202.00	2202.00	4.80	4.81	270.20	0.17	-49.94	49.94	40.33	5.19		
2300.00	2300.00	2302.00	2302.00	5.03	5.03	270.20	0.17	-49.94	49.94	39.88	4.96		
2400.00	2400.00	2402.00	2402.00	5.25	5.26	270.20	0.17	-49.94	49.94	39.43	4.75		
2500.00	2500.00	2502.00	2502.00	5.48	5.48	270.20	0.17	-49.94	49.94	38.98	4.56		
2600.00	2600.00	2602.00	2602.00	5.70	5.71	270.20	0.17	-49.94	49.94	38.53	4.38		
2700.00	2700.00	2702.00	2702.00	5.93	5.93	270.20	0.17	-49.94	49.94	38.08	4.21		
2800.00	2800.00	2802.00	2802.00	6.15	6.16	270.20	0.17	-49.94	49.94	37.63	4.06		
2900.00	2900.00	2902.00	2902.00	6.38	6.38	270.20	0.17	-49.94	49.94	37.18	3.91		
3000.00	3000.00	3002.00	3002.00	6.60	6.61	270.20	0.17	-49.94	49.94	36.73	3.78		
3100.00	3100.00	3102.00	3102.00	6.83	6.83	270.20	0.17	-49.94	49.94	36.28	3.66		
3200.00	3200.00	3202.00	3202.00	7.05	7.06	270.20	0.17	-49.94	49.94	35.83	3.54		
3300.00	3300.00	3302.00	3302.00	7.28	7.28	270.20	0.17	-49.94	49.94	35.38	3.43		
3400.00	3400.00	3402.00	3402.00	7.50	7.51	270.20	0.17	-49.94	49.94	34.93	3.33		
3500.00	3500.00	3502.00	3502.00	7.73	7.73	270.20	0.17	-49.94	49.94	34.48	3.23		
3600.00	3600.00	3602.00	3602.00	7.95	7.96	270.20	0.17	-49.94	49.94	34.03	3.14		
3700.00	3700.00	3702.00	3702.00	8.18	8.18	270.20	0.17	-49.94	49.94	33.58	3.05		
3800.00	3800.00	3802.00	3802.00	8.40	8.41	270.20	0.17	-49.94	49.94	33.13	2.97		
3900.00	3900.00	3902.00	3902.00	8.63	8.63	270.20	0.17	-49.94	49.94	32.69	2.89		
4000.00	4000.00	4002.00	4002.00	8.85	8.85	270.20	0.17	-49.94	49.94	32.24	2.82		
4100.00	4100.00	4102.00	4102.00	9.07	9.08	270.20	0.17	-49.94	49.94	31.79	2.75		
4200.00	4200.00	4202.00	4202.00	9.30	9.30	270.20	0.17	-49.94	49.94	31.34	2.68		
4300.00	4300.00	4302.00	4302.00	9.52	9.53	270.20	0.17	-49.94	49.94	30.89	2.62		
4400.00	4400.00	4402.00	4402.00	9.75	9.75	270.20	0.17	-49.94	49.94	30.44	2.56		
4500.00	4500.00	4502.00	4502.00	9.97	9.98	270.20	0.17	-49.94	49.94	29.99	2.50		
4600.00	4600.00	4602.00	4602.00	10.20	10.20	270.20	0.17	-49.94	49.94	29.54	2.45		
4700.00	4700.00	4702.00	4702.00	10.42	10.43	270.20	0.17	-49.94	49.94	29.09	2.40		
4800.00	4800.00	4802.00	4802.00	10.65	10.65	270.20	0.17	-49.94	49.94	28.64	2.34		
4900.00	4900.00	4902.00	4902.00	10.87	10.88	270.20	0.17	-49.94	49.94	28.19	2.30		
5000.00	5000.00	5002.00	5002.00	11.10	11.10	270.20	0.17	-49.94	49.94	27.74	2.25		
5100.00	5100.00	5102.00	5102.00	11.32	11.33	270.20	0.17	-49.94	49.94	27.29	2.20		
5200.00	5200.00	5202.00	5202.00	11.55	11.55	270.20	0.17	-49.94	49.94	26.84	2.16		
5300.00	5300.00	5302.00	5302.00	11.77	11.78	270.20	0.17	-49.94	49.94	26.39	2.12		
5400.00	5400.00	5402.00	5402.00	12.00	12.00	270.20	0.17	-49.94	49.94	25.94	2.08		



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013

Time: 10:25:44

Page: 9

Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit 219H
Well: Cotton Draw Unit 219H
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 ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor	
5500.00	5500.00	5502.00	5502.00	12.22	12.23	270.20	0.17	-49.94	49.94	25.49	2.04	
5600.00	5600.00	5602.00	5602.00	12.45	12.45	270.20	0.17	-49.94	49.94	25.04	2.01	
5700.00	5699.95	5701.95	5701.95	12.66	12.68	171.30	0.17	-49.94	52.53	27.21	2.07	
5755.38	5755.21	5757.21	5757.21	12.77	12.80	171.85	0.17	-49.94	56.19	30.66	2.20	
5800.00	5799.68	5801.68	5801.68	12.85	12.90	172.34	0.17	-49.94	59.78	34.06	2.32	
5900.00	5899.35	5901.35	5901.35	13.06	13.12	173.26	0.17	-49.94	67.84	41.71	2.60	
6000.00	5999.02	6001.02	6001.02	13.26	13.35	173.98	0.17	-49.94	75.92	49.37	2.86	
6100.00	6098.69	6100.69	6100.69	13.46	13.57	174.56	0.17	-49.94	84.00	57.03	3.11	
6200.00	6198.36	6200.36	6200.36	13.67	13.80	175.04	0.17	-49.94	92.10	64.70	3.36	
6300.00	6298.03	6300.03	6300.03	13.88	14.02	175.44	0.17	-49.94	100.20	72.38	3.60	
6400.00	6397.70	6399.70	6399.70	14.09	14.24	175.78	0.17	-49.94	108.30	80.06	3.83	
6500.00	6497.37	6499.37	6499.37	14.31	14.47	176.08	0.17	-49.94	116.41	87.74	4.06	
6600.00	6597.03	6599.03	6599.03	14.52	14.69	176.33	0.17	-49.94	124.52	95.42	4.28	
6700.00	6696.70	6698.70	6698.70	14.74	14.92	176.56	0.17	-49.94	132.63	103.11	4.49	
6800.00	6796.37	6798.37	6798.37	14.96	15.14	176.76	0.17	-49.94	140.74	110.79	4.70	
6900.00	6896.04	6898.04	6898.04	15.18	15.36	176.93	0.17	-49.94	148.86	118.48	4.90	
7000.00	6995.71	6997.71	6997.71	15.40	15.59	177.09	0.17	-49.94	156.97	126.16	5.10	
7100.00	7095.38	7097.38	7097.38	15.62	15.81	177.23	0.17	-49.94	165.09	133.85	5.29	
7200.00	7195.05	7197.05	7197.05	15.85	16.04	177.36	0.17	-49.94	173.21	141.54	5.47	
7300.00	7294.72	7296.72	7296.72	16.08	16.26	177.48	0.17	-49.94	181.32	149.23	5.65	
7400.00	7394.39	7396.39	7396.39	16.30	16.48	177.59	0.17	-49.94	189.44	156.91	5.82	
7500.00	7494.06	7496.06	7496.06	16.53	16.71	177.69	0.17	-49.94	197.56	164.60	5.99	
7600.00	7593.73	7595.73	7595.73	16.76	16.93	177.78	0.17	-49.94	205.68	172.29	6.16	
7700.00	7693.40	7695.40	7695.40	16.99	17.16	177.87	0.17	-49.94	213.81	179.97	6.32	
7800.00	7793.07	7795.07	7795.07	17.22	17.38	177.94	0.17	-49.94	221.93	187.66	6.48	
7900.00	7892.73	7894.73	7894.73	17.46	17.60	178.02	0.17	-49.94	230.05	195.35	6.63	
8000.00	7992.40	7994.40	7994.40	17.69	17.83	178.08	0.17	-49.94	238.17	203.03	6.78	
8100.00	8092.07	8094.07	8094.07	17.93	18.05	178.15	0.17	-49.94	246.29	210.72	6.92	
8200.00	8191.74	8193.74	8193.74	18.16	18.28	178.21	0.17	-49.94	254.42	218.41	7.07	
8300.00	8291.41	8293.41	8293.41	18.40	18.50	178.26	0.17	-49.94	262.54	226.09	7.20	
8400.00	8391.08	8393.08	8393.08	18.64	18.72	178.31	0.17	-49.94	270.66	233.78	7.34	
8500.00	8490.75	8492.75	8492.75	18.88	18.95	178.36	0.17	-49.94	278.79	241.46	7.47	
8600.00	8590.42	8592.42	8592.42	19.12	19.17	178.41	0.17	-49.94	286.91	249.15	7.60	
8700.00	8690.09	8692.09	8692.09	19.36	19.40	178.45	0.17	-49.94	295.03	256.83	7.72	
8800.00	8789.76	8791.76	8791.76	19.60	19.62	178.49	0.17	-49.94	303.16	264.52	7.85	
8900.00	8889.43	8891.43	8891.43	19.84	19.84	178.53	0.17	-49.94	311.28	272.20	7.97	
9000.00	8989.10	8991.10	8991.10	20.08	20.07	178.57	0.17	-49.94	319.40	279.88	8.08	
9100.00	9088.77	9090.77	9090.77	20.32	20.29	178.61	0.17	-49.94	327.53	287.57	8.20	
9200.00	9188.43	9190.43	9190.43	20.57	20.52	178.64	0.17	-49.94	335.65	295.25	8.31	
9300.00	9288.10	9290.10	9290.10	20.81	20.74	178.67	0.17	-49.94	343.78	302.94	8.42	
9400.00	9387.77	9362.48	9362.29	21.06	20.87	178.10	-3.04	-53.17	355.73	314.58	8.65	
9500.00	9487.44	9431.78	9430.34	21.30	20.99	176.53	-12.11	-62.27	375.45	334.09	9.08	
9600.00	9587.11	9496.35	9491.94	21.55	21.11	174.34	-25.71	-75.94	403.22	361.75	9.72	
9700.00	9686.78	9555.22	9545.88	21.79	21.22	171.89	-42.30	-92.60	439.19	397.72	10.59	
9800.00	9786.45	9608.04	9591.99	22.04	21.33	169.46	-60.44	-110.82	483.18	441.79	11.67	
9803.21	9789.65	9609.63	9593.34	22.05	21.33	169.38	-61.04	-111.42	484.72	443.33	11.71	
9850.00	9836.26	9631.74	9611.88	22.12	21.39	220.56	-69.54	-119.96	508.06	466.77	12.30	
9900.00	9885.77	9650.00	9626.82	22.10	21.43	244.75	-76.94	-127.40	534.87	493.66	12.98	
9950.00	9934.60	9671.21	9643.75	21.98	21.49	255.58	-85.95	-136.45	563.47	522.41	13.72	
10000.00	9982.39	9686.89	9655.96	21.76	21.53	262.60	-92.90	-143.43	593.79	552.86	14.51	
10050.00	10028.77	9700.00	9665.95	21.75	21.56	268.20	-98.88	-149.44	625.63	584.82	15.33	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013

Time: 10:25:44

Page: 10

Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit 219H
Well: Cotton Draw Unit 219H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref	Offset ft	TFO-HS deg	Offset Location North	Offset Location East	Ctr-Ctr Edge Distance	Edge Distance	Separation Factor	Warning
10100.00	10073.39	9710.59	9673.88	21.86	21.60	273.29	-103.84	-154.41	658.79	618.10	16.19	
10150.00	10115.90	9718.89	9680.01	21.97	21.62	278.23	-107.79	-158.38	693.03	652.46	17.08	
10200.00	10155.99	9725.06	9684.50	22.08	21.64	283.16	-110.77	-161.37	728.09	687.65	18.00	
10250.00	10193.35	9729.26	9687.54	22.21	21.66	288.08	-112.81	-163.43	763.71	723.43	18.96	
10300.00	10227.69	9731.66	9689.27	22.35	21.66	292.96	-113.99	-164.61	799.62	759.56	19.96	
10350.00	10258.76	9732.42	9689.81	22.51	21.67	297.71	-114.37	-164.98	835.56	795.78	21.00	
10400.00	10286.31	9731.68	9689.28	22.69	21.66	302.25	-114.00	-164.62	871.28	831.85	22.10	
10450.00	10310.14	9729.56	9687.76	22.89	21.66	306.52	-112.96	-163.58	906.54	867.52	23.23	
10500.00	10330.06	9726.20	9685.33	23.11	21.65	310.46	-111.32	-161.93	941.12	902.54	24.39	
10550.00	10345.93	9721.68	9682.04	23.36	21.63	314.05	-109.13	-159.73	974.81	936.67	25.56	
10600.00	10357.63	9716.10	9677.95	23.63	21.61	317.27	-106.45	-157.04	1007.40	969.67	26.70	
10650.00	10365.05	9700.00	9665.95	23.93	21.56	320.72	-98.88	-149.44	1038.84	1001.43	27.77	
10700.00	10368.16	9700.00	9665.95	24.26	21.56	322.80	-98.88	-149.44	1068.59	1031.46	28.78	
10716.45	10368.23	9700.00	9665.95	24.37	21.56	323.42	-98.88	-149.44	1078.07	1041.01	29.09	
10800.00	10367.40	9686.16	9655.39	24.99	21.53	324.15	-92.57	-143.10	1127.65	1090.19	30.11	
10900.00	10366.40	9671.17	9643.72	25.83	21.49	324.93	-85.94	-136.43	1191.44	1153.46	31.37	
11000.00	10365.41	9650.00	9626.82	26.77	21.43	326.01	-76.94	-127.40	1259.50	1220.94	32.66	
11100.00	10364.41	11786.33	10366.41	27.80	28.70	270.00	907.70	-942.17	1320.02	1263.63	23.41	
11200.00	10363.42	11886.33	10365.42	28.91	29.81	270.00	1007.70	-942.17	1320.02	1261.42	22.53	
11300.00	10362.42	11986.33	10364.42	30.09	30.98	270.00	1107.69	-942.17	1320.02	1259.08	21.66	
11400.00	10361.43	12086.33	10363.43	31.32	32.21	270.00	1207.69	-942.17	1320.02	1256.60	20.81	
11500.00	10360.44	12186.33	10362.43	32.62	33.49	270.00	1307.68	-942.17	1320.02	1254.02	20.00	
11600.00	10359.44	12286.33	10361.44	33.96	34.82	270.00	1407.68	-942.17	1320.02	1251.34	19.22	
11700.00	10358.45	12386.33	10360.44	35.35	36.20	270.00	1507.67	-942.17	1320.02	1248.58	18.48	
11800.00	10357.45	12486.33	10359.45	36.77	37.61	270.00	1607.67	-942.17	1320.02	1245.74	17.77	
11900.00	10356.46	12586.33	10358.45	38.23	39.06	270.00	1707.66	-942.17	1320.02	1242.83	17.10	
12000.00	10355.46	12686.33	10357.46	39.72	40.53	270.00	1807.66	-942.17	1320.02	1239.86	16.47	
12100.00	10354.47	12786.33	10356.46	41.23	42.04	270.00	1907.65	-942.17	1320.02	1236.83	15.87	
12200.00	10353.47	12886.33	10355.47	42.77	43.57	270.00	2007.65	-942.17	1320.02	1233.76	15.30	
12300.00	10352.48	12986.33	10354.47	44.33	45.12	270.00	2107.64	-942.17	1320.02	1230.65	14.77	
12400.00	10351.48	13086.33	10353.48	45.92	46.69	270.00	2207.64	-942.17	1320.02	1227.49	14.27	
12500.00	10350.49	13186.33	10352.48	47.51	48.28	270.00	2307.63	-942.17	1320.02	1224.30	13.79	
12600.00	10349.49	13286.33	10351.49	49.13	49.89	270.00	2407.63	-942.17	1320.02	1221.08	13.34	
12700.00	10348.50	13386.33	10350.49	50.76	51.51	270.00	2507.62	-942.17	1320.02	1217.83	12.92	
12800.00	10347.50	13486.33	10349.50	52.40	53.14	270.00	2607.62	-942.17	1320.02	1214.55	12.52	
12900.00	10346.51	13586.33	10348.50	54.05	54.79	270.00	2707.61	-942.17	1320.02	1211.25	12.14	
13000.00	10345.51	13686.33	10347.51	55.72	56.44	270.00	2807.61	-942.17	1320.02	1207.92	11.78	
13100.00	10344.52	13786.33	10346.51	57.39	58.11	270.00	2907.60	-942.17	1320.02	1204.58	11.43	
13200.00	10343.52	13886.33	10345.52	59.07	59.79	270.00	3007.60	-942.17	1320.02	1201.22	11.11	
13300.00	10342.53	13986.33	10344.52	60.76	61.47	270.00	3107.59	-942.17	1320.02	1197.84	10.80	
13400.00	10341.53	14086.33	10343.53	62.46	63.16	270.00	3207.59	-942.17	1320.02	1194.45	10.51	
13500.00	10340.54	14186.33	10342.53	64.17	64.86	270.00	3307.58	-942.17	1320.02	1191.04	10.23	
13600.00	10339.54	14286.33	10341.54	65.88	66.57	270.00	3407.58	-942.17	1320.02	1187.62	9.97	
13700.00	10338.55	14386.33	10340.54	67.60	68.28	270.00	3507.57	-942.17	1320.02	1184.19	9.72	
13800.00	10337.55	14486.33	10339.55	69.32	70.00	270.00	3607.57	-942.17	1320.02	1180.75	9.48	
13900.00	10336.56	14586.33	10338.55	71.05	71.72	270.00	3707.56	-942.17	1320.02	1177.29	9.25	
14000.00	10335.56	14686.33	10337.56	72.78	73.45	270.00	3807.56	-942.17	1320.02	1173.83	9.03	
14100.00	10334.57	14786.33	10336.56	74.52	75.18	270.00	3907.55	-942.17	1320.02	1170.36	8.82	
14200.00	10333.58	14886.33	10335.57	76.26	76.92	270.00	4007.55	-942.17	1320.02	1166.88	8.62	
14300.00	10332.58	14986.33	10334.57	78.01	78.66	270.00	4107.54	-942.17	1320.02	1163.39	8.43	
14400.00	10331.59	15086.33	10333.58	79.76	80.41	270.00	4207.54	-942.17	1320.02	1159.90	8.24	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 220H
Reference Well: Cotton Draw Unit 220H
Reference Wellpath:

Date: 5/9/2013

Time: 10:25:44

Page: 11

Co-ordinate(NE) Reference: Well: Cotton Draw Unit 220H, Grid North
Vertical (TVD) Reference: SITE 3476.0

Db: Sybase

Site: Cotton Draw Unit 219H
Well: Cotton Draw Unit 219H
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		
14500.00	10330.59	15186.33	10332.58	81.51	82.16	270.00	4307.53	-942.17	1320.02	1156.39	8.07	
14600.00	10329.60	15286.33	10331.59	83.26	83.91	270.00	4407.53	-942.17	1320.02	1152.89	7.90	
14700.00	10328.60	15386.33	10330.59	85.02	85.66	270.00	4507.52	-942.17	1320.02	1149.37	7.74	
14800.00	10327.61	15486.33	10329.60	86.78	87.42	270.00	4607.52	-942.17	1320.02	1145.85	7.58	
14900.00	10326.61	15586.33	10328.60	88.55	89.18	270.00	4707.51	-942.17	1320.02	1142.33	7.43	

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

GeoDec v5.03

Report Date: May 09, 2013
Job Number: _____
Customer: Devon
Well Name: Cotton Draw Unit 220H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM
Block: _____
Engineer: RWJ

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 419773.720 USFT	Latitude 32.1526619 DEG
East/West 723868.170 USFT	Longitude -103.7435273 DEG
Grid Convergence: .31°	
Total Correction: +7.17°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.15266° N	32° 9 min 9.583 sec
Longitude =	103.74353° W	103° 44 min 36.698 sec

Magnetic Declination =	7.48°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6511
Local Field Strength =	48326 nT	Magnetic Vector X = 23945 nT
Magnetic Dip =	60.02°	Magnetic Vector Y = 3143 nT
Magnetic Model =	bggm2013	Magnetic Vector Z = 41859 nT
Spud Date =	Nov 01, 2013	Magnetic Vector H = 24150 nT

Signed: _____

Date: _____