

30-015-40587



Weatherford®

Drilling Services

Proposal



devon

EMERALD PWU 20 #7H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

JULY 2, 2012

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devon
Emerald PWU 20 #7H
Eddy Co, NM

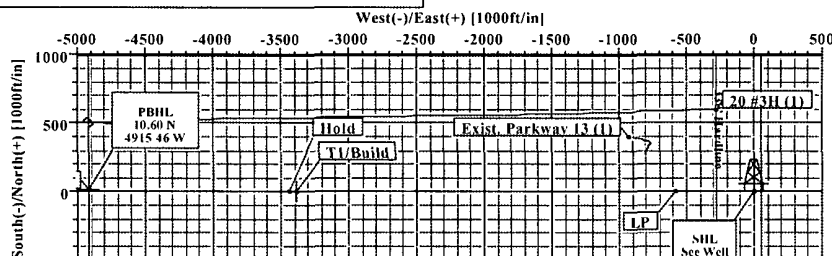
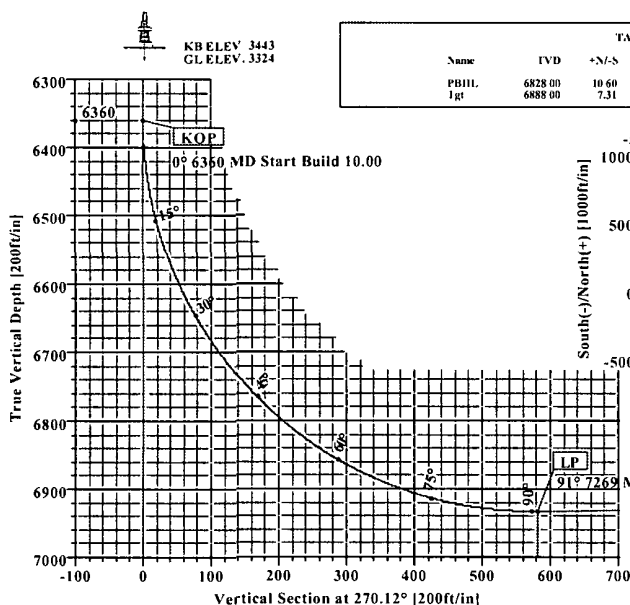
SECTION DETAILS										
Sec	MD	Inc	Azi	IVD	+N/-S	+E/-W	D1 c/g	FFace	VSec	Target
1	0.00	0.00	270.12	0.00	0.00	0.00	0.00	0.00	0.00	
2	6360.12	0.00	270.12	6360.12	0.00	0.00	0.00	0.00	0.00	
3	7269.31	90.92	270.12	6933.00	1.26	-582.15	10.00	270.12	582.15	
4	10075.31	90.92	270.12	6888.00	7.31	-3387.78	0.00	0.00	3387.78	Igt
5	10120.31	92.27	270.12	6886.75	7.41	-3432.76	3.00	-0.01	3432.77	
6	11604.18	92.27	270.12	6828.00	10.60	-4915.46	0.00	0.00	4915.47	PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
PWU 20 #7H	0.00	0.00	598011.04	616680.22	32°38'37.459N	104°05'18.822W	N/A

TARGET DETAILS						
Name	IVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	6828.00	10.60	-4915.46	598021.64	611764.76	Point
Igt	6888.00	7.31	-3387.78	598018.35	613292.44	Point

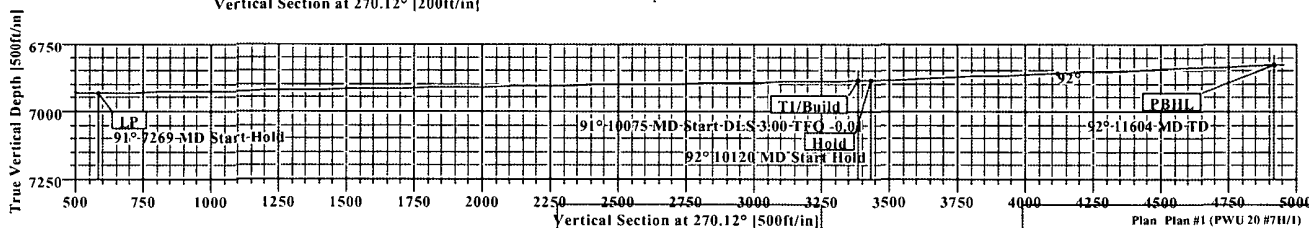
FIELD DETAILS
 Eddy Co., NM (NAD 83)
 Geodetic System: US State Plane Coordinate System 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico, Eastern Zone
 Magnetic Model: IGRF 2010
 System Datum: Mean Sea Level
 Local North: Grid North

SITE DETAILS
 Emerald PWU 20 #7H
 Site Centre Northing: 598011.04
 Easting: 616680.22
 Ground Level: 3324.00
 Positional Uncertainty: 0.00
 Convergence: 0.13



LEGEND	
20 #3H (1)	
Exist. Parkway 13 (1)	
Plan #1	

Arms to Grid North
 True North: 0.13°
 Magnetic North: 7.55°
 Magnetic Field Strength: 48695a T
 Dip Angle: 60.45°
 Date: 11/15/2012
 Model: IGRF 2010
Total Correction to Grid North: 7.55°



Created By: Russell W. Joyner Date: 7/2/2012



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WFT Plan Report - X & Y's



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Emerald PWU 20 #7H
Well: PWU 20 #7H
Wellpath: 1

Date: 7/2/2012
Co-ordinate(NE) Reference: Well. PWU 20 #7H, Grd North
Vertical (TVD) Reference: SITE 3343.0
Section (VS) Reference: Well (0 00N,0.00E,270 12Azi)
Survey Calculation Method: Minimum Curvature
Db: Sybase

Time: 07:58 04
Page: 1

Plan: Plan #1
Principal: Yes

Date Composed: 7/2/2012
Version: 1
Tied-to: From Surface

Field: Eddy Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: Emerald PWU 20 #7H

Site Position: Northing: 598011.04 ft Latitude: 32 38 37.459 N
From: Map Easting: 616680.22 ft Longitude: 104 5 18.822 W
Position Uncertainty: 0 00 ft North Reference: Grd
Ground Level: 3324 00 ft Grid Convergence: 0.13 deg

Well: PWU 20 #7H
Slot Name:

Well Position: +N/-S 0.00 ft Northing: 598011 04 ft Latitude: 32 38 37.459 N
+E/-W 0 00 ft Easting: 616680.22 ft Longitude: 104 5 18.822 W
Position Uncertainty: 0.00 ft

Wellpath: 1

Current Datum: SITE
Magnetic Data: 11/15/2012
Field Strength: 48695 nT
Vertical Section: Depth From (TVD) ft

Height 3343.00 ft

Drilled From: Surface
Tie-on Depth: 0 00 ft
Above System Datum: Mean Sea Level
Declination: 7 68 deg
Mag Dip Angle: 60.45 deg

+N/-S ft
+E/-W ft
Direction deg

0 00 0.00 0 00 270.12

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	270.12	0.00	0.00	0 00	0.00	0.00	0 00	0.00	
6360.12	0.00	270.12	6360.12	0.00	0 00	0.00	0.00	0 00	0.00	
7269.31	90 92	270.12	6933.00	1.26	-582 15	10.00	10.00	0.00	270.12	
10075.31	90 92	270.12	6888 00	7.31	-3387.78	0.00	0.00	0 00	0 00	Tgt
10120.31	92 27	270.12	6886 75	7.41	-3432 76	3.00	3.00	0 00	-0 01	
11604.18	92 27	270.12	6828.00	10.60	-4915.46	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
6300.00	0 00	270 12	6300 00	0 00	0 00	0 00	0 00	598011 04	616680.22	
6360 12	0 00	270 12	6360.12	0 00	0 00	0 00	0 00	598011 04	616680.22	KOP
6400 00	3 99	270 12	6399 97	0 00	-1 39	1 39	10 00	598011 04	616678.83	
6450 00	8 99	270 12	6449.63	0 02	-7 04	7 04	10.00	598011.06	616673.18	
6500 00	13.99	270 12	6498 61	0 04	-16 99	16 99	10.00	598011.08	616663.23	
6550 00	18.99	270 12	6546.54	0 07	-31.18	31 18	10 00	598011.11	616649.04	
6600 00	23.99	270 12	6593.05	0 11	-49 49	49 49	10.00	598011.15	616630.73	
6650 00	28.99	270 12	6637.79	0 15	-71 78	71.78	10 00	598011 19	616608 44	
6700 00	33 99	270 12	6680 41	0 21	-97 89	97 89	10.00	598011 25	616582 33	
6750 00	38.99	270 12	6720 60	0 28	-127.61	127 61	10.00	598011 32	616552 61	
6800 00	43 99	270.12	6758 04	0 35	-160.72	160 72	10.00	598011.39	616519 50	
6850 00	48 99	270 12	6792 46	0 43	-196.97	196 97	10 00	598011.47	616483 25	
6900 00	53.99	270 12	6823 58	0 51	-236.08	236.08	10 00	598011 55	616444 14	
6950 00	58.99	270 12	6851.18	0 60	-277 76	277 76	10 00	598011 64	616402 46	
7000 00	63.99	270.12	6875.04	0 69	-321 68	321 68	10.00	598011 73	616358 54	



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WFT Plan Report - X & Y's



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Emerald PWU 20 #7H
Well: PWU 20 #7H
Wellpath: 1

Date: 7/2/2012 Time: 07:58:04 Page: 2
Co-ordinate(NE) Reference: Well: PWU 20 #7H, Grd North
Vertical (TVD) Reference: SITE 3343 0
Section (VS) Reference: Well (0 00N,0 00E,270.12Az)
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
7050.00	68.99	270.12	6894.98	0.79	-367.52	367.52	10.00	598011.83	616312.70	
7100.00	73.99	270.12	6910.85	0.90	-414.91	414.91	10.00	598011.94	616265.31	
7150.00	78.99	270.12	6922.53	1.00	-463.51	463.51	10.00	598012.04	616216.71	
7200.00	83.99	270.12	6929.93	1.11	-512.95	512.95	10.00	598012.15	616167.27	
7250.00	88.99	270.12	6932.99	1.21	-562.84	562.84	10.00	598012.25	616117.38	
7269.31	90.92	270.12	6933.00	1.26	-582.15	582.15	10.00	598012.30	616098.07	LP
7300.00	90.92	270.12	6932.51	1.32	-612.83	612.83	0.00	598012.36	616067.39	
7400.00	90.92	270.12	6930.91	1.54	-712.82	712.82	0.00	598012.58	615967.40	
7500.00	90.92	270.12	6929.30	1.75	-812.81	812.81	0.00	598012.79	615867.41	
7600.00	90.92	270.12	6927.70	1.97	-912.79	912.79	0.00	598013.01	615767.43	
7700.00	90.92	270.12	6926.10	2.19	-1012.78	1012.78	0.00	598013.23	615667.44	
7800.00	90.92	270.12	6924.49	2.40	-1112.77	1112.77	0.00	598013.44	615567.45	
7900.00	90.92	270.12	6922.89	2.62	-1212.75	1212.76	0.00	598013.66	615467.47	
8000.00	90.92	270.12	6921.28	2.83	-1312.74	1312.74	0.00	598013.87	615367.48	
8100.00	90.92	270.12	6919.68	3.05	-1412.73	1412.73	0.00	598014.09	615267.49	
8200.00	90.92	270.12	6918.08	3.26	-1512.71	1512.72	0.00	598014.30	615167.51	
8300.00	90.92	270.12	6916.47	3.48	-1612.70	1612.70	0.00	598014.52	615067.52	
8400.00	90.92	270.12	6914.87	3.70	-1712.69	1712.69	0.00	598014.74	614967.53	
8500.00	90.92	270.12	6913.27	3.91	-1812.67	1812.68	0.00	598014.95	614867.55	
8600.00	90.92	270.12	6911.66	4.13	-1912.66	1912.67	0.00	598015.17	614767.56	
8700.00	90.92	270.12	6910.06	4.34	-2012.65	2012.65	0.00	598015.38	614667.57	
8800.00	90.92	270.12	6908.45	4.56	-2112.64	2112.64	0.00	598015.60	614567.58	
8900.00	90.92	270.12	6906.85	4.77	-2212.62	2212.63	0.00	598015.81	614467.60	
9000.00	90.92	270.12	6905.25	4.99	-2312.61	2312.61	0.00	598016.03	614367.61	
9100.00	90.92	270.12	6903.64	5.21	-2412.60	2412.60	0.00	598016.25	614267.62	
9200.00	90.92	270.12	6902.04	5.42	-2512.58	2512.59	0.00	598016.46	614167.64	
9300.00	90.92	270.12	6900.43	5.64	-2612.57	2612.58	0.00	598016.68	614067.65	
9400.00	90.92	270.12	6898.83	5.85	-2712.56	2712.56	0.00	598016.89	613967.66	
9500.00	90.92	270.12	6897.23	6.07	-2812.54	2812.55	0.00	598017.11	613867.68	
9600.00	90.92	270.12	6895.62	6.28	-2912.53	2912.54	0.00	598017.32	613767.69	
9700.00	90.92	270.12	6894.02	6.50	-3012.52	3012.52	0.00	598017.54	613667.70	
9800.00	90.92	270.12	6892.42	6.72	-3112.50	3112.51	0.00	598017.76	613567.72	
9900.00	90.92	270.12	6890.81	6.93	-3212.49	3212.50	0.00	598017.97	613467.73	
10000.00	90.92	270.12	6889.21	7.15	-3312.48	3312.49	0.00	598018.19	613367.74	
10075.31	90.92	270.12	6888.00	7.31	-3387.78	3387.79	0.00	598018.35	613292.44	Tgt
10100.00	91.66	270.12	6887.44	7.36	-3412.46	3412.47	3.00	598018.40	613267.76	
10120.31	92.27	270.12	6886.75	7.41	-3432.76	3432.77	3.00	598018.45	613247.46	Hold
10200.00	92.27	270.12	6883.59	7.58	-3512.39	3512.40	0.00	598018.62	613167.83	
10300.00	92.27	270.12	6879.63	7.79	-3612.31	3612.32	0.00	598018.83	613067.91	
10400.00	92.27	270.12	6875.68	8.01	-3712.23	3712.24	0.00	598019.05	612967.99	
10500.00	92.27	270.12	6871.72	8.22	-3812.15	3812.16	0.00	598019.26	612868.07	
10600.00	92.27	270.12	6867.76	8.44	-3912.07	3912.08	0.00	598019.48	612768.15	
10700.00	92.27	270.12	6863.80	8.65	-4011.99	4012.00	0.00	598019.69	612668.23	
10800.00	92.27	270.12	6859.84	8.87	-4111.92	4111.93	0.00	598019.91	612568.30	
10900.00	92.27	270.12	6855.88	9.08	-4211.84	4211.85	0.00	598020.12	612468.38	
11000.00	92.27	270.12	6851.92	9.30	-4311.76	4311.77	0.00	598020.34	612368.46	
11100.00	92.27	270.12	6847.96	9.52	-4411.68	4411.69	0.00	598020.56	612268.54	
11200.00	92.27	270.12	6844.00	9.73	-4511.60	4511.61	0.00	598020.77	612168.62	
11300.00	92.27	270.12	6840.04	9.95	-4611.52	4611.53	0.00	598020.99	612068.70	
11400.00	92.27	270.12	6836.08	10.16	-4711.44	4711.45	0.00	598021.20	611968.78	
11500.00	92.27	270.12	6832.12	10.38	-4811.37	4811.38	0.00	598021.42	611868.85	
11604.18	92.27	270.12	6828.00	10.60	-4915.46	4915.47	0.00	598021.64	611764.76	PBHL



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WFT Plan Report - X & Y's



Company: Devon Energy
Field: Eddy Co , NM (NAD 83)
Site: Emerald PWU 20 #7H
Well: PWU 20 #7H
Wellpath: 1

Date: 7/2/2012 Time: 07:58:04 Page: 3
Co-ordinate(NE) Reference: Well PWU 20 #7H, Grid North
Vertical (TVD) Reference: SITE 3343 0
Section (VS) Reference: Well (0 00N,0 00E,270.12Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<---- Longitude ---->		
							Deg	Min	Sec	Deg	Min	Sec
PBHL		6828 00	10 60	-4915.46	598021 64	611764.76	32	38	37.672 N	104	6 16 311 W	
Tgt		6888 00	7 31	-3387.78	598018 35	613292.44	32	38	37 607 N	104	5 58 444 W	

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
6360.12	6360 12	KOP
7269 31	6933 00	LP
10075 31	6888 00	T1/Build
10120 31	6886 75	Hold
11604 17	6828 00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction



Weatherford Anticollision Report



Company: Devon Energy Date: 7/2/2012 Time: 07:57.00 Page: 1
Field: Eddy Co., NM (NAD 83)
Reference Site: Emerald PWU 20 #7H Co-ordinate(NE) Reference: Well: PWU 20 #7H, Grid North
Reference Well: PWU 20 #7H Vertical (TVD) Reference: SITE 3343 0
Reference Wellpath: Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria
Interpolation Method: MD Interval: 100.00 ft
Depth Range: 0.00 to 11604.18 ft
Maximum Radius: 40000.00 ft
Reference: Plan: Plan #1
Error Model: ISCWSA Ellipse
Scan Method: Closest Approach 3D
Error Surface: Ellipse

Plan: Plan #1 Date Composed: 7/2/2012
Principal: Yes Version: 1
Tied-to: From Surface

Summary

Site	Offset Wellpath	Wellpath	Reference MD	Offset MD	Ctr-Ctr Edge Distance	Separation Distance	Warning
Emerald PWU 20 #3H	20 #3H	1 V0	11604.18	6855.05	514.24	366.40	3.48
Exist. Parkway 13	Exist. Parkway 13	1 V0	0.00	179996.09	855.21	661.70	4.42

Site: Emerald PWU 20 #3H
Well: 20 #3H
Wellpath: 1 V0

Inter-Site Error: 0.00 ft

Reference MD	TVD	Offset MD	TVD	Semi-Major Axis Ref	Offset	TFO-HS	Offset Location North	East	Ctr-Ctr Edge Distance	Separation Distance	Warning
0.00	0.00	7.29	7.29	0.00	0.01	275.27	453.26	-4916.41	4937.26		No Data
100.00	100.00	106.20	106.20	0.09	0.13	275.28	454.11	-4916.32	4937.25	4937.03	22301.36
200.00	200.00	202.62	202.60	0.32	0.39	275.30	455.76	-4916.27	4937.36	4936.66	7033.13
300.00	300.00	325.49	325.42	0.54	0.71	275.34	459.10	-4915.83	4937.25	4936.00	3940.83
400.00	400.00	431.32	431.19	0.77	0.99	275.38	462.53	-4915.01	4936.79	4935.03	2806.37
500.00	500.00	552.27	552.09	0.99	1.31	275.42	466.07	-4913.85	4936.11	4933.81	2143.38
600.00	600.00	716.41	716.16	1.21	1.73	275.47	470.05	-4911.10	4934.75	4931.80	1675.55
700.00	700.00	825.80	825.48	1.44	2.00	275.50	472.39	-4908.34	4932.43	4929.00	1434.96
800.00	800.00	923.76	923.39	1.66	2.24	275.52	474.39	-4905.77	4930.02	4926.12	1262.64
900.00	900.00	1008.09	1007.68	1.89	2.45	275.55	476.07	-4903.75	4927.83	4923.48	1134.98
1000.00	1000.00	1092.29	1091.85	2.11	2.67	275.57	477.63	-4902.01	4925.95	4921.16	1030.00
1100.00	1100.00	1174.45	1173.99	2.34	2.88	275.58	478.97	-4900.61	4924.41	4919.19	943.28
1200.00	1200.00	1264.62	1264.13	2.56	3.12	275.60	480.23	-4899.36	4923.17	4917.49	866.72
1300.00	1300.00	1350.27	1349.78	2.79	3.34	275.61	481.24	-4898.38	4922.14	4916.01	803.03
1400.00	1400.00	1444.60	1444.09	3.01	3.59	275.62	482.26	-4897.55	4921.37	4914.77	745.39
1500.00	1500.00	1548.62	1548.11	3.24	3.86	275.63	483.04	-4896.66	4920.59	4913.50	693.51
1600.00	1600.00	1641.86	1641.35	3.46	4.10	275.64	483.57	-4895.86	4919.81	4912.25	650.89
1700.00	1700.00	1741.94	1741.42	3.69	4.36	275.65	484.23	-4895.13	4919.14	4911.09	611.54
1800.00	1800.00	1836.50	1835.98	3.91	4.61	275.66	484.88	-4894.44	4918.48	4909.96	577.49
1900.00	1900.00	1939.11	1938.58	4.14	4.88	275.67	485.59	-4893.76	4917.89	4908.88	545.74
2000.00	2000.00	2040.49	2039.96	4.36	5.14	275.67	486.18	-4893.03	4917.23	4907.73	517.55
2100.00	2100.00	2129.49	2128.95	4.59	5.38	275.68	486.78	-4892.47	4916.67	4906.71	493.65
2200.00	2200.00	2229.22	2228.67	4.81	5.64	275.69	487.48	-4891.97	4916.25	4905.80	470.51
2300.00	2300.00	2331.88	2331.33	5.04	5.91	275.70	488.16	-4891.42	4915.78	4904.84	449.10
2400.00	2400.00	2430.09	2429.54	5.26	6.17	275.71	488.95	-4890.89	4915.32	4903.89	430.01
2500.00	2500.00	2538.00	2537.44	5.49	6.46	275.72	489.68	-4890.21	4914.76	4902.82	411.66
2600.00	2600.00	2636.08	2635.52	5.71	6.71	275.73	490.20	-4889.57	4914.17	4901.75	395.65
2700.00	2700.00	2734.47	2733.91	5.93	6.97	275.73	490.70	-4888.97	4913.61	4900.71	380.81
2800.00	2800.00	2834.81	2834.24	6.16	7.23	275.74	491.19	-4888.38	4913.07	4899.68	366.89
2900.00	2900.00	2937.61	2937.04	6.38	7.50	275.74	491.73	-4887.73	4912.49	4898.60	353.77
3000.00	3000.00	12303.00	7841.86	6.61	122.08	334.86	595.02	-279.18	4879.13	4836.62	114.79
3100.00	3100.00	12303.00	7841.86	6.83	122.08	334.86	595.02	-279.18	4780.06	4737.21	111.56
3200.00	3200.00	12303.00	7841.86	7.06	122.08	334.86	595.02	-279.18	4681.03	4637.83	108.36
3300.00	3300.00	12303.00	7841.86	7.28	122.08	334.86	595.02	-279.18	4582.04	4538.48	105.19
3400.00	3400.00	12303.00	7841.86	7.51	122.08	334.86	595.02	-279.18	4483.10	4439.17	102.06
3500.00	3500.00	12303.00	7841.86	7.73	122.08	334.86	595.02	-279.18	4384.20	4339.90	98.96



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Emerald PWU 20 #7H
Reference Well: PWU 20 #7H
Reference Wellpath:

Date: 7/2/2012 Time: 07:57:00
Co-ordinate(NE) Reference: Well. PWU 20 #7H, Grid North
Vertical (TVD) Reference: SITE 3343.0

Page: 2

Db: Sybase

Site: Emerald PWU 20 #3H
Well: 20 #3H
Wellpath: 1 V0

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		
3600.00	3600.00	12303.00	7841.86	7.96	122.08	334.86	595.02	-279.18	4285.36	4240.67	95.89	
3700.00	3700.00	12303.00	7841.86	8.18	122.08	334.86	595.02	-279.18	4186.57	4141.48	92.86	
3800.00	3800.00	12303.00	7841.86	8.41	122.08	334.86	595.02	-279.18	4087.84	4042.34	89.85	
3900.00	3900.00	12303.00	7841.86	8.63	122.08	334.86	595.02	-279.18	3989.17	3943.26	86.88	
4000.00	4000.00	12303.00	7841.86	8.86	122.08	334.86	595.02	-279.18	3890.57	3844.22	83.93	
4100.00	4100.00	12303.00	7841.86	9.08	122.08	334.86	595.02	-279.18	3792.05	3745.24	81.02	
4200.00	4200.00	12303.00	7841.86	9.31	122.08	334.86	595.02	-279.18	3693.60	3646.33	78.13	
4300.00	4300.00	12303.00	7841.86	9.53	122.08	334.86	595.02	-279.18	3595.24	3547.48	75.27	
4400.00	4400.00	12303.00	7841.86	9.76	122.08	334.86	595.02	-279.18	3496.98	3448.71	72.45	
4500.00	4500.00	12303.00	7841.86	9.98	122.08	334.86	595.02	-279.18	3398.81	3350.01	69.65	
4600.00	4600.00	12303.00	7841.86	10.21	122.08	334.86	595.02	-279.18	3300.76	3251.40	66.88	
4700.00	4700.00	12303.00	7841.86	10.43	122.08	334.86	595.02	-279.18	3202.82	3152.88	64.14	
4800.00	4800.00	12303.00	7841.86	10.66	122.08	334.86	595.02	-279.18	3105.02	3054.46	61.42	
4900.00	4900.00	12303.00	7841.86	10.88	122.08	334.86	595.02	-279.18	3007.36	2956.16	58.74	
5000.00	5000.00	12303.00	7841.86	11.10	122.08	334.86	595.02	-279.18	2909.86	2857.97	56.08	
5100.00	5100.00	12303.00	7841.86	11.33	122.08	334.86	595.02	-279.18	2812.53	2759.92	53.46	
5200.00	5200.00	12303.00	7841.86	11.55	122.08	334.86	595.02	-279.18	2715.40	2662.01	50.86	
5300.00	5300.00	12303.00	7841.86	11.78	122.08	334.86	595.02	-279.18	2618.49	2564.26	48.29	
5400.00	5400.00	12303.00	7841.86	12.00	122.08	334.86	595.02	-279.18	2521.81	2466.70	45.76	
5500.00	5500.00	12303.00	7841.86	12.23	122.08	334.86	595.02	-279.18	2425.41	2369.34	43.25	
5600.00	5600.00	12303.00	7841.86	12.45	122.08	334.86	595.02	-279.18	2329.31	2272.20	40.79	
5700.00	5700.00	12303.00	7841.86	12.68	122.08	334.86	595.02	-279.18	2233.55	2175.31	38.35	
5800.00	5800.00	12303.00	7841.86	12.90	122.08	334.86	595.02	-279.18	2138.18	2078.71	35.96	
5900.00	5900.00	12303.00	7841.86	13.13	122.08	334.86	595.02	-279.18	2043.25	1982.44	33.60	
6000.00	6000.00	12303.00	7841.86	13.35	122.08	334.86	595.02	-279.18	1948.83	1886.54	31.29	
6100.00	6100.00	12303.00	7841.86	13.58	122.08	334.86	595.02	-279.18	1855.00	1791.07	29.02	
6200.00	6200.00	12303.00	7841.86	13.80	122.08	334.86	595.02	-279.18	1761.84	1696.10	26.80	
6300.00	6300.00	12303.00	7841.86	14.03	122.08	334.86	595.02	-279.18	1669.48	1601.72	24.64	
6400.00	6399.97	12303.00	7841.86	14.25	122.08	73.27	595.02	-279.18	1577.83	1507.81	22.54	
6500.00	6498.61	12303.00	7841.86	14.48	122.08	96.46	595.02	-279.18	1485.85	1413.34	20.49	
6600.00	6593.05	12303.00	7841.86	14.72	122.08	116.30	595.02	-279.18	1395.80	1320.78	18.61	
6700.00	6680.41	12303.00	7841.86	15.02	122.08	129.72	595.02	-279.18	1311.08	1233.82	16.97	
6800.00	6758.04	12303.00	7841.86	15.44	122.08	138.06	595.02	-279.18	1235.62	1156.42	15.60	
6900.00	6823.58	12303.00	7841.86	16.07	122.08	143.10	595.02	-279.18	1173.70	1092.84	14.52	
7000.00	6875.04	12267.44	7842.23	16.99	121.11	145.52	594.83	-314.74	1128.99	1047.21	13.81	
7100.00	6910.85	12170.86	7843.22	18.25	118.48	146.31	594.24	-411.31	1099.09	1017.51	13.47	
7200.00	6929.93	12070.88	7844.20	19.81	115.76	146.73	593.01	-511.27	1083.11	1002.08	13.37	
7300.00	6932.51	11975.71	7845.68	21.60	113.17	146.92	591.29	-606.42	1081.15	1000.91	13.47	
7400.00	6930.91	11876.30	7848.00	23.58	110.46	147.14	589.02	-705.77	1083.10	1003.73	13.65	
7500.00	6929.30	11762.87	7850.29	25.70	107.37	147.42	585.76	-819.14	1084.49	1006.18	13.85	
7600.00	6927.70	11656.36	7851.77	27.93	104.47	147.71	581.57	-925.55	1084.79	1007.39	14.02	
7700.00	6926.10	11558.56	7852.86	30.24	101.83	147.95	577.99	-1023.28	1085.02	1008.27	14.14	
7800.00	6924.49	11452.86	7853.19	32.63	98.96	148.16	574.81	-1128.93	1084.92	1008.84	14.26	
7900.00	6922.89	11353.99	7852.54	35.07	96.27	148.26	573.27	-1227.79	1084.80	1009.07	14.33	
8000.00	6921.28	11254.01	7851.71	37.55	93.56	148.36	571.81	-1327.75	1084.57	1009.18	14.39	
8100.00	6919.68	11151.00	7851.20	40.07	90.77	148.48	570.05	-1430.75	1084.52	1009.51	14.46	
8200.00	6918.08	11046.37	7850.35	42.62	87.94	148.64	567.33	-1535.34	1083.72	1009.15	14.53	
8300.00	6916.47	10943.90	7849.41	45.19	85.16	148.79	564.68	-1637.77	1082.85	1008.67	14.60	
8400.00	6914.87	10859.72	7848.76	47.78	82.88	148.90	562.72	-1721.92	1082.29	1008.16	14.60	
8500.00	6913.27	10770.40	7848.90	50.39	80.46	148.97	562.33	-1811.24	1083.43	1009.33	14.62	
8600.00	6911.66	10665.72	7849.34	53.01	77.64	149.07	561.63	-1915.92	1084.71	1010.90	14.69	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Emerald PWU 20 #7H
Reference Well: PWU 20 #7H
Reference Wellpath:

Date: 7/2/2012 Time: 07 57 00
Co-ordinate(NE) Reference: Well: PWU 20 #7H, Grd North
Vertical (TVD) Reference: SITE 3343.0

Page: 3

Db: Sybase

Site: Emerald PWU 20 #3H
Well: 20 #3H
Wellpath: 1 V0

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		
8700.00	6910.06	10556.20	7849.28	55.65	74.69	149.19	560.18	-2025.43	1085.26	1011.82	14.78	
8800.00	6908.45	10453.50	7848.49	58.30	71.92	149.29	558.82	-2128.11	1085.19	1011.99	14.82	
8900.00	6906.85	10362.00	7847.94	60.95	69.47	149.37	557.70	-2219.61	1085.32	1012.17	14.84	
9000.00	6905.25	10287.19	7848.76	63.62	67.45	149.47	556.92	-2294.41	1087.03	1013.70	14.82	
9100.00	6903.64	10169.45	7851.38	66.29	64.31	149.67	555.38	-2412.10	1089.63	1016.88	14.98	
9200.00	6902.04	10064.77	7852.61	68.97	61.52	149.87	553.00	-2516.75	1090.79	1018.42	15.07	
9300.00	6900.43	9953.48	7852.94	71.66	58.55	150.05	550.34	-2628.00	1091.12	1019.21	15.17	
9400.00	6898.83	9859.79	7852.56	74.35	56.07	150.19	548.12	-2721.67	1090.90	1019.11	15.20	
9500.00	6897.23	9786.02	7853.48	77.04	54.11	150.30	547.12	-2795.42	1092.58	1020.57	15.17	
9600.00	6895.62	9705.94	7856.07	79.74	52.00	150.43	546.57	-2875.46	1096.34	1024.24	15.21	
9700.00	6894.02	9587.94	7860.31	82.44	48.91	150.65	545.50	-2993.38	1100.33	1028.79	15.38	
9800.00	6892.42	9462.93	7862.50	85.15	45.65	150.87	543.41	-3118.34	1102.37	1031.45	15.54	
9900.00	6890.81	9358.32	7862.35	87.85	42.94	151.02	541.08	-3222.93	1102.44	1031.77	15.60	
10000.00	6889.21	9251.04	7862.23	90.57	40.19	151.15	539.28	-3330.19	1102.86	1032.41	15.65	
10100.00	6887.44	9154.84	7861.18	93.28	37.75	151.24	537.79	-3426.38	1102.60	1032.14	15.65	
10200.00	6885.59	9056.62	7860.38	95.99	35.28	151.38	536.60	-3524.59	1104.58	1034.20	15.69	
10300.00	6879.63	8969.67	7860.79	98.71	33.12	151.51	536.00	-3611.53	1107.97	1037.48	15.72	
10400.00	6875.68	8879.38	7861.65	101.43	30.93	151.66	535.37	-3701.82	1111.85	1041.29	15.76	
10500.00	6871.72	8814.73	7863.80	104.15	29.39	151.80	534.95	-3766.42	1117.83	1046.82	15.74	
10600.00	6867.76	8753.81	7867.84	106.87	27.96	151.98	534.48	-3827.20	1126.83	1055.38	15.77	
10700.00	6863.80	8673.12	7871.18	109.59	13.71	94.14	523.10	-4944.18	1064.72	941.70	8.66	
10800.00	6859.84	8671.12	6869.18	112.32	13.71	93.92	523.17	-4944.14	978.32	852.56	7.78	
10900.00	6855.88	8669.12	6867.18	115.04	13.70	93.70	523.24	-4944.11	894.76	766.25	6.96	
11000.00	6851.92	8667.12	6865.18	117.77	13.70	93.48	523.31	-4944.07	814.90	683.65	6.21	
11100.00	6847.96	8665.12	6863.18	120.50	13.70	93.25	523.38	-4944.03	739.95	605.95	5.52	
11200.00	6844.00	8663.12	6861.19	123.23	13.70	93.03	523.46	-4943.99	671.54	534.80	4.91	
11300.00	6840.04	8661.12	6859.19	125.96	13.70	92.81	523.53	-4943.95	611.90	472.41	4.39	
11400.00	6836.08	8659.12	6857.20	128.69	13.70	92.58	523.60	-4943.91	563.78	421.55	3.96	
11500.00	6832.12	8657.13	6855.21	131.42	13.70	92.36	523.67	-4943.87	530.36	385.38	3.66	
11600.00	6828.17	8655.14	6853.21	134.15	13.70	92.14	523.74	-4943.83	514.49	366.76	3.48	
11604.18	6828.00	8655.05	6853.13	134.27	13.70	92.13	523.74	-4943.83	514.24	366.40	3.48	

Site: Exist Parkway 13
Well: Exist Parkway 13
Wellpath: 1 V0

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		
0.00	0.00	179996.09	-3.91	0.00	193.51	289.19	281.17	-807.67	855.21	661.70	4.42	
100.00	100.00	93.83	93.83	0.09	0.10	289.19	281.12	-807.81	855.33	855.14	4457.00	
200.00	200.00	193.81	193.81	0.32	0.35	289.16	280.85	-808.19	855.60	854.93	1281.94	
300.00	300.00	293.57	293.57	0.54	0.61	289.13	280.42	-808.62	855.87	854.71	741.75	
400.00	400.00	396.49	396.49	0.77	0.87	289.08	279.84	-808.96	855.99	854.35	522.76	
500.00	500.00	498.19	498.18	0.99	1.09	289.05	279.27	-808.98	855.83	853.75	411.55	
600.00	600.00	597.07	597.06	1.21	1.30	289.03	279.02	-808.87	855.64	853.13	340.85	
700.00	700.00	700.31	700.30	1.44	1.47	289.03	278.87	-808.58	855.33	852.42	293.73	
800.00	800.00	805.79	805.78	1.66	1.59	289.06	279.07	-807.59	854.50	851.25	262.56	
900.00	900.00	908.10	908.08	1.89	1.72	289.12	279.51	-806.04	853.21	849.61	236.68	
1000.00	1000.00	1008.45	1008.41	2.11	1.87	289.20	280.09	-804.29	851.75	847.77	214.01	
1100.00	1100.00	1104.10	1104.05	2.34	2.02	289.28	280.83	-802.82	850.56	846.20	195.20	
1200.00	1200.00	1202.91	1202.83	2.56	2.18	289.37	281.81	-801.55	849.68	844.93	179.05	
1300.00	1300.00	1298.80	1298.71	2.79	2.34	289.48	283.09	-800.53	849.12	843.99	165.54	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Emerald PWU 20 #7H
Reference Well: PWU 20 #7H
Reference Wellpath:

Date: 7/2/2012

Time: 07:57:00

Page: 4

Co-ordinate(NE) Reference: Well: PWU 20 #7H, Grd North
Vertical (TVD) Reference: SITE 3343.0

Db: Sybase

Site: Exist Parkway 13
Well: Exist Parkway 13
Wellpath: 1 V0

Inter-Site Error: 0 00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Warning
1400.00	1400.00	1400.94	1400.84	3 01	2 52	289 59	284 60	-799 51	848.67	843.14	153.35
1500 00	1500 00	1497 10	1496.98	3.24	2 70	289.71	286 08	-798 63	848 33	842.39	142.85
1600 00	1600 00	1595 79	1595 65	3.46	2.89	289.83	287.82	-797 98	848 30	841 95	133.61
1700 00	1700 00	1691 16	1691 01	3.69	3 07	289.96	289 67	-797 62	848.60	841 85	125.67
1800 00	1800 00	1792 29	1792 12	3.91	3 26	290 08	291 57	-797.52	849 16	841 99	118 43
1900 00	1900 00	1890 99	1890.80	4.14	3 46	290 20	293 38	-797 40	849.68	842 09	111.91
2000 00	2000 00	1991 30	1991.09	4.36	3 66	290.33	295 34	-797 33	850.28	842.26	105.95
2100 00	2100.00	2092 15	2091.92	4 59	3 88	290.45	297 23	-797 20	850.81	842 35	100 48
2200.00	2200 00	2192 79	2192 55	4 81	4 11	290.56	298 90	-797 05	851.25	842.34	95.47
2300 00	2300 00	2295 02	2294 77	5.04	4.34	290.65	300 29	-796 83	851.54	842 16	90.81
2400.00	2400 00	2397 76	2397.50	5.26	4.59	290.72	301 34	-796 42	851 52	841.67	86.45
2500 00	2500.00	2498.68	2498 42	5 49	4 84	290.80	302 25	-795 82	851.29	840 96	82.45
2600 00	2600.00	2598.59	2598.32	5.71	5 09	290.86	303 08	-795.21	851.01	840 21	78.81
2700 00	2700.00	2700 99	2700.72	5.93	5 34	290 92	303.66	-794 53	850 60	839.32	75.43
2800 00	2800.00	2801 10	2800.82	6.16	5 59	290.96	304 08	-793.77	850.03	838 29	72 37
2900 00	2900.00	2900.54	2900 27	6 38	5 83	291 02	304 65	-792.98	849.50	837 28	69 53
3000.00	3000 00	3000 50	3000.22	6.61	6 09	291.07	305 29	-792.20	849.00	836.30	66 88
3100 00	3100.00	3100 42	3100 13	6.83	6 34	291 13	305 81	-791 47	848 51	835.34	64 42
3200 00	3200.00	3197 59	3197 30	7.06	6 58	291 18	306 39	-790 91	848 19	834.54	62 17
3300 00	3300.00	3296 50	3296 21	7.28	6 83	291.23	307 06	-790 56	848.10	833.98	60 07
3400 00	3400 00	3396 50	3396.21	7.51	7 09	291 28	307.74	-790.27	848 08	833.48	58 11
3500 00	3500.00	3494.74	3494.44	7 73	7.33	291 34	308 58	-790.03	848 15	833.09	56.31
3600 00	3600.00	3595.02	3594.71	7.96	7 58	291.42	309.78	-789.74	848 33	832.79	54 61
3700 00	3700.00	3695 37	3695.05	8.18	7 83	291 51	311 04	-789 39	848 46	832.45	52.99
3800.00	3800 00	3796 47	3796.14	8.41	8 08	291.61	312.43	-788.90	848 51	832 02	51 45
3900.00	3900 00	3895 55	3895.20	8.63	8 34	291 72	314.06	-788.29	848.54	831 58	50 01
4000.00	4000 00	3997.19	3996.83	8 86	8.60	291.84	315 73	-787.62	848.55	831 10	48 62
4100 00	4100 00	4096.71	4096.34	9 08	8 85	291.96	317 29	-786 92	848 48	830.54	47 31
4200 00	4200 00	4196 97	4196.58	9.31	9.11	292.07	318 84	-786 24	848.42	830.00	46 06
4300 00	4300.00	4299 48	4299.08	9.53	9 38	292 20	320.42	-785 36	848.21	829 30	44.85
4400 00	4400 00	4401 49	4401.07	9.76	9.64	292.31	321.85	-784 24	847.73	828.33	43 70
4500 00	4500 00	4500.03	4499 59	9.98	9 90	292.43	323 31	-783 09	847.22	827.34	42 61
4600 00	4600.00	4599.42	4598 96	10.21	10 16	292 56	324 89	-782 02	846.83	826 46	41.58
4700.00	4700 00	4697.88	4697.41	10.43	10.42	292.69	326 52	-781 07	846.57	825.72	40 60
4800 00	4800 00	4795.02	4794.53	10.66	10.67	292.82	328 27	-780 34	846.57	825.25	39 70
4900 00	4900.00	4888.48	4887 97	10.88	10.90	292.93	330 07	-780.13	847.12	825 35	38.90
5000 00	5000.00	4994 56	4994 03	11 10	11 16	293 07	332 27	-779.98	847 81	825.54	38 08
5100 00	5100 00	5097.44	5096 89	11 33	11.43	293 22	334 27	-779 18	847.86	825.10	37 26
5200 00	5200 00	5203 79	5203 20	11 55	11 71	293 39	336 39	-777.74	847.40	824.14	36 43
5300 00	5300 00	5315 56	5314.92	11 78	11 99	293 59	338.30	-774 86	845.70	821 94	35 59
5400 00	5400 00	5411 39	5410.69	12 00	12 23	293.77	340 00	-772 06	843.74	819 51	34 82
5500 00	5500 00	5510 92	5510 17	12 23	12 48	293.97	342 04	-769 29	842 02	817 32	34 08
5600 00	5600.00	5610 05	5609.23	12 45	12.74	294 18	344 13	-766 56	840 36	815 18	33 36
5700 00	5700 00	5703 91	5703.04	12 68	12 98	294 37	346.19	-764 37	839.14	813 49	32 71
5800.00	5800 00	5793 09	5792 20	12 90	13 21	294 53	348 32	-763 22	838 95	812 84	32.13
5900 00	5900 00	5882 72	5881 79	13 13	13.42	294 67	350 60	-763.23	840 03	813 48	31 65
6000.00	6000 00	5975 72	5974.75	13.35	13 60	294 79	353.04	-764.31	842.17	815 22	31.24
6100 00	6100.00	6067 80	6066 78	13 58	13 77	294 89	355 54	-766.16	845 14	817 79	30 91
6200 00	6200 00	6167 42	6166 32	13 80	13 94	294 99	358.41	-768.83	848 78	821 04	30.60
6300.00	6300 00	6267.74	6266.58	14.03	14 10	295 07	360.82	-771.47	852 19	824 06	30 30
6400 00	6399 97	6368 63	6367.41	14.25	14 25	25.02	362 82	-774 37	854.37	825.90	30 00



Weatherford Anticollision Report



Company: Devon Energy Date: 7/2/2012 Time: 07:57:00 Page: 5
Field: Eddy Co., NM (NAD 83)
Reference Site: Emerald PWU 20 #7H Co-ordinate(NE) Reference: Well: PWU 20 #7H, Grid North
Reference Well: PWU 20 #7H Vertical (TVD) Reference: SITE 3343.0
Reference Wellpath: Db: Sybase

Site: Exist. Parkway 13
Well: Exist. Parkway 13
Wellpath: 1 V0

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		
6500.00	6498.61	6469.23	6467.96	14.48	14.39	25.97	364.48	-777.19	843.47	814.87	29.49	
6600.00	6593.05	6563.70	6562.37	14.72	14.53	28.22	365.98	-779.79	817.27	788.79	28.70	
6700.00	6680.41	6651.60	6650.22	15.02	14.65	32.10	367.33	-782.40	777.19	748.94	27.51	
6800.00	6758.04	6730.47	6729.05	15.44	14.76	38.14	368.40	-784.87	725.01	696.83	25.72	
6900.00	6823.58	6797.40	6795.94	16.07	14.85	46.93	369.25	-787.11	663.44	634.69	23.07	
7000.00	6875.04	6851.08	6849.58	16.99	14.92	58.61	369.87	-789.04	595.97	565.67	19.67	
7100.00	6910.85	6890.07	6888.53	18.25	14.96	71.76	370.25	-790.55	527.13	494.61	16.21	
7200.00	6929.93	6913.23	6911.68	19.81	14.99	83.28	370.45	-791.48	462.82	428.12	13.34	
7300.00	6932.51	6919.90	6918.35	21.60	15.00	88.87	370.50	-791.75	410.38	373.78	11.21	
7400.00	6930.91	6922.31	6920.75	23.58	15.00	89.24	370.52	-791.85	377.40	338.82	9.78	
7500.00	6929.30	6924.70	6923.14	25.70	15.01	89.61	370.54	-791.94	369.38	328.69	9.08	
7600.00	6927.70	6927.07	6925.51	27.93	15.01	89.98	370.56	-792.04	387.87	344.94	9.04	
7700.00	6926.10	6929.43	6927.86	30.24	15.01	90.35	370.58	-792.13	429.46	384.21	9.49	
7800.00	6924.49	6931.77	6930.21	32.63	15.01	90.71	370.60	-792.22	488.28	440.65	10.25	
7900.00	6922.89	6934.10	6932.53	35.07	15.02	91.07	370.62	-792.31	558.91	508.84	11.16	
8000.00	6921.28	6936.42	6934.85	37.55	15.02	91.43	370.64	-792.40	637.45	584.90	12.13	
8100.00	6919.68	6938.72	6937.15	40.07	15.02	91.79	370.65	-792.49	721.31	666.25	13.10	
8200.00	6918.08	6941.00	6939.43	42.62	15.03	92.14	370.67	-792.58	808.84	751.24	14.04	
8300.00	6916.47	6943.28	6941.70	45.19	15.03	92.50	370.69	-792.67	898.97	838.80	14.94	
8400.00	6914.87	6945.53	6943.96	47.78	15.03	92.85	370.71	-792.76	990.99	928.24	15.79	
8500.00	6913.27	6947.78	6946.20	50.39	15.03	93.19	370.72	-792.85	1084.42	1019.08	16.60	
8600.00	6911.66	6950.01	6948.43	53.01	15.04	93.54	370.74	-792.94	1178.92	1110.98	17.35	
8700.00	6910.06	6952.22	6950.64	55.65	15.04	93.88	370.76	-793.02	1274.26	1203.70	18.06	
8800.00	6908.45	6954.43	6952.84	58.30	15.04	94.22	370.77	-793.11	1370.26	1297.08	18.72	
8900.00	6906.85	6956.62	6955.03	60.95	15.04	94.56	370.79	-793.19	1466.79	1390.99	19.35	
9000.00	6905.25	6958.79	6957.20	63.62	15.05	94.89	370.81	-793.28	1563.75	1485.32	19.94	
9100.00	6903.64	6960.96	6959.37	66.29	15.05	95.23	370.82	-793.36	1661.08	1580.01	20.49	
9200.00	6902.04	6963.10	6961.51	68.97	15.05	95.56	370.84	-793.44	1758.69	1674.99	21.01	
9300.00	6900.43	6965.24	6963.65	71.66	15.05	95.88	370.85	-793.52	1856.56	1770.22	21.50	
9400.00	6898.83	6967.37	6965.77	74.35	15.06	96.21	370.87	-793.61	1954.65	1865.67	21.97	
9500.00	6897.23	6969.48	6967.88	77.04	15.06	96.53	370.88	-793.69	2052.91	1961.30	22.41	
9600.00	6895.62	6971.58	6969.98	79.74	15.06	96.85	370.90	-793.77	2151.34	2057.08	22.83	
9700.00	6894.02	6973.66	6972.06	82.44	15.06	97.17	370.91	-793.85	2249.90	2153.01	23.22	
9800.00	6892.42	6975.74	6974.14	85.15	15.07	97.49	370.93	-793.93	2348.58	2249.06	23.60	
9900.00	6890.81	6977.80	6976.20	87.85	15.07	97.80	370.94	-794.00	2447.36	2345.21	23.96	
10000.00	6889.21	6979.85	6978.24	90.57	15.07	98.11	370.96	-794.08	2546.24	2441.47	24.30	
10100.00	6887.44	6981.74	6980.13	93.28	15.07	98.23	370.97	-794.15	2645.20	2537.00	24.45	
10200.00	6885.59	6981.68	6980.07	95.99	15.07	98.89	370.97	-794.15	2744.26	2633.21	24.71	
10300.00	6879.63	6981.52	6979.92	98.71	15.07	98.86	370.97	-794.14	2843.38	2729.62	24.99	
10400.00	6875.68	6981.36	6979.76	101.43	15.07	98.84	370.97	-794.14	2942.56	2826.08	25.26	
10500.00	6871.72	6981.21	6979.60	104.15	15.07	98.81	370.97	-794.13	3041.80	2922.60	25.52	
10600.00	6867.76	6981.05	6979.45	106.87	15.07	98.79	370.97	-794.13	3141.08	3019.16	25.76	
10700.00	6863.80	6980.90	6979.29	109.59	15.07	98.76	370.97	-794.12	3240.41	3115.77	26.00	
10800.00	6859.84	6980.74	6979.14	112.32	15.07	98.74	370.96	-794.12	3339.78	3212.42	26.22	
10900.00	6855.88	6980.59	6978.99	115.04	15.07	98.72	370.96	-794.11	3439.18	3309.10	26.44	
11000.00	6851.92	6980.44	6978.84	117.77	15.07	98.69	370.96	-794.10	3538.62	3405.81	26.64	
11100.00	6847.96	6980.29	6978.68	120.50	15.07	98.67	370.96	-794.10	3638.09	3502.55	26.84	
11200.00	6844.00	6980.14	6978.53	123.23	15.07	98.65	370.96	-794.09	3737.59	3599.32	27.03	
11300.00	6840.04	6979.99	6978.39	125.96	15.07	98.62	370.96	-794.09	3837.11	3696.12	27.21	
11400.00	6836.08	6979.84	6978.24	128.69	15.07	98.60	370.96	-794.08	3936.66	3792.94	27.39	



Weatherford Anticollision Report



Company: Devon Energy Date: 7/2/2012 Time: 07:57 00 Page: 6
Field: Eddy Co , NM (NAD 83)
Reference Site: Emerald PWU 20 #7H Co-ordinate(NE) Reference: Well. PWU 20 #7H, Grid North
Reference Well: PWU 20 #7H Vertical (TVD) Reference: SITE 3343 0
Reference Wellpath: Db: Sybase

Site: Exist Parkway 13
Well: Exist Parkway 13
Wellpath: 1 V0

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		
11500 00	6832 12	6979.69	6978.09	131 42	15.07	88.58	370.96	-794.08	4036.23	3889.78	27.56	
11600 00	6828 17	6979 55	6977.94	134 15	15.07	88.55	370 96	-794.07	4135 82	3986 63	27.72	
11604 18	6828 00	6979 54	6977.94	134 27	15.07	88 55	370 96	-794.07	4139 98	3990 68	27 73	

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

GeoDec v5.03

Report Date: July 02, 2012
Job Number: _____
Customer: Devon Energy
Well Name: Emerald PWU 20 #7H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM (NAD 83)
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 598011.040 USFT	Latitude 32.6437419 DEG
East/West 616680.220 USFT	Longitude -104.0885576 DEG
Grid Convergence: .13°	
Total Correction: +7.55°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.64374° N	32° 38 min 37.471 sec
Longitude =	104.08856° W	104° 5 min 18.808 sec

Magnetic Declination =	7.68°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6647
Local Field Strength =	48691 nT	Magnetic Vector X = 23797 nT
Magnetic Dip =	60.45°	Magnetic Vector Y = 3210 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42358 nT
Spud Date =	Nov 15, 2012	Magnetic Vector H = 24013 nT

Signed: _____

Date: _____