

Scientific Drilling

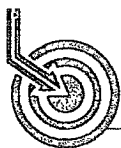
Gyroscopic Survey Report
for
DEVON ENERGY

30-017-38338

Well Location	EDDY COUNTY, NEW MEXICO
Well Name	EMERALD PWU 20 #1H
Rig Name	H & P #300
Survey Date	3/6/2011
Latitude	32.65 deg
North Reference	Grid North
Grid Correction	-0.12 deg
Depth Reference	RKB
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 90.04Azim (deg)
Definitive Survey	FINAL OUTRUN
Operator	LEO GARZA

Comments

ZERO REFERENCE IS AT K.B. OF 26'



Survey Report

Well Name:		EMERALD PWU 20 #1H							
Survey:		FINAL OUTRUN							
Survey Date:		3/6/2011							
MD	Inc	Azim	TVD	VS	Northing	Easting	DLS	Closure Distance	Closure Angle
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	deg
0 00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.22	270.35	100.00	-0.19	0.00	-0.19	0.22	0.19	270.35
200 00	0.28	261.33	200.00	-0.62	-0.03	-0.62	0.07	0.63	266.86
300.00	0.78	284.70	299.99	-1.53	0.10	-1.53	0.54	1.53	273.84
400.00	0.82	290.12	399.98	-2.86	0.52	-2.86	0.08	2.91	280.35
500.00	0.76	300.54	499.98	-4.10	1.10	-4.10	0.16	4.24	285.07
600.00	0.59	325.47	599.97	-4.96	1.86	-4.96	0.33	5.29	290.56
700.00	0.51	41.09	699.96	-4.95	2.62	-4.95	0.68	5.60	297.85
800.00	0.69	58.85	799.96	-4.15	3.26	-4.15	0.25	5.28	308.22
900.00	0.76	58.26	899.95	-3.07	3.92	-3.07	0.07	4.98	322.00
1000.00	0.67	40.30	999.94	-2.13	4.72	-2.12	0.24	5.17	335.76
1100 00	0.62	24.63	1099.94	-1.53	5.65	-1.52	0.18	5.86	344.94
1200.00	0.60	359.29	1199.93	-1.31	6.67	-1.30	0.27	6.80	348.95
1300.00	0.67	357.74	1299.93	-1.34	7.78	-1.33	0.07	7.89	350.28
1400.00	0.74	349.98	1399.92	-1.47	9.00	-1.47	0.12	9.12	350.74
1500.00	0.80	355.52	1499.91	-1.64	10.34	-1.64	0.09	10.46	351.01
1600.00	0.64	351.57	1599.90	-1.78	11.58	-1.77	0.17	11.71	351.30
1700.00	0.65	357.87	1699.90	-1.88	12.69	-1.87	0.07	12.83	351.60
1800.00	0.51	350.73	1799.89	-1.98	13.70	-1.97	0.15	13.84	351.83
1900.00	0.35	325.45	1899.89	-2.22	14.39	-2.21	0.25	14.56	351.26
2000.00	0.30	301.17	1999.89	-2.62	14.78	-2.61	0.15	15.01	349.97
2100.00	0.33	286.09	2099.88	-3.13	15.00	-3.12	0.09	15.32	348.26
2200.00	0.35	293.04	2199.88	-3.68	15.20	-3.67	0.04	15.64	346.41
2300.00	0.33	288.61	2299.88	-4.24	15.41	-4.23	0.03	15.98	344.66
2400.00	0.40	296.37	2399.88	-4.83	15.66	-4.82	0.08	16.38	342.90
2500.00	0.47	292.05	2499.88	-5.52	15.97	-5.51	0.08	16.89	340.96
2600.00	0.44	287.31	2599.87	-6.27	16.24	-6.26	0.05	17.40	338.91
2700.00	0.50	281.76	2699.87	-7.07	16.44	-7.06	0.08	17.89	336.76
2800.00	0.57	289.95	2799.86	-7.97	16.70	-7.95	0.10	18.50	334.53
2900.00	0.57	274.56	2899.86	-8.93	16.91	-8.92	0.15	19.12	332.19
3000.00	0.59	281.09	2999.85	-9.93	17.05	-9.92	0.07	19.72	329.80
3100.00	0.61	297.21	3099.85	-10.91	17.39	-10.90	0.17	20.52	327.92
3200.00	0.65	298.81	3199.84	-11.88	17.90	-11.87	0.04	21.48	326.46
3300.00	0.63	297.81	3299.84	-12.86	18.43	-12.85	0.02	22.47	325.12
3400.00	0.59	295.46	3399.83	-13.82	18.91	-13.80	0.05	23.42	323.88
3500 00	0.59	300.13	3499.83	-14.72	19.39	-14.71	0.05	24.34	322.82
3600 00	0.67	307.32	3599.82	-15.63	20.00	-15.62	0.11	25.37	322.02
3700.00	0.97	309.76	3699.81	-16.74	20.89	-16.73	0.30	26.76	321.32
3800.00	1.06	308.29	3799.79	-18.12	22.01	-18.10	0.10	28.50	320.56



Survey Report

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ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	deg
3900.00	1.27	297.31	3899.77	-19.83	23.09	-19.82	0.31	30.43	319.36
4000.00	1.66	295.00	3999.74	-22.14	24.21	-22.12	0.40	32.80	317.59
4100.00	1.54	296.70	4099.70	-24.65	25.43	-24.64	0.13	35.41	315.91
4200.00	1.41	304.61	4199.67	-26.86	26.73	-26.85	0.24	37.88	314.88
4300.00	1.35	319.84	4299.64	-28.63	28.33	-28.61	0.37	40.26	314.71
4400.00	1.41	331.79	4399.61	-29.97	30.31	-29.95	0.30	42.61	315.34
4500.00	1.32	341.48	4499.58	-30.93	32.49	-30.90	0.25	44.84	316.44
4600.00	1.08	351.11	4599.56	-31.44	34.52	-31.42	0.32	46.68	317.70
4700.00	1.00	355.04	4699.54	-31.66	36.32	-31.64	0.11	48.17	318.94
4800.00	0.96	357.15	4799.53	-31.78	38.03	-31.75	0.05	49.54	320.14
4900.00	0.79	1.72	4899.52	-31.80	39.55	-31.78	0.19	50.73	321.22
5000.00	0.77	346.44	4999.51	-31.94	40.89	-31.91	0.21	51.87	322.03
5100.00	1.24	342.90	5099.49	-32.42	42.58	-32.39	0.47	53.50	322.74
5200.00	1.41	343.27	5199.47	-33.09	44.80	-33.06	0.17	55.68	323.57
5300.00	1.48	342.16	5299.43	-33.85	47.21	-33.81	0.07	58.07	324.39
5400.00	1.61	344.98	5399.40	-34.61	49.79	-34.57	0.15	60.61	325.23
5500.00	1.74	350.66	5499.36	-35.22	52.65	-35.18	0.21	63.32	326.25
5600.00	1.70	348.52	5599.31	-35.76	55.60	-35.72	0.08	66.09	327.28
5700.00	1.89	328.94	5699.26	-36.91	58.46	-36.87	0.64	69.12	327.76
5800.00	2.00	329.06	5799.20	-38.66	61.38	-38.62	0.11	72.52	327.82
5900.00	1.93	328.83	5899.15	-40.44	64.32	-40.39	0.07	75.95	327.87
6000.00	1.83	331.60	5999.09	-42.07	67.16	-42.02	0.14	79.23	327.97
6100.00	1.81	338.52	6099.04	-43.41	70.04	-43.36	0.22	82.37	328.24
6200.00	1.86	348.88	6198.99	-44.30	73.10	-44.25	0.33	85.45	328.81
6300.00	1.93	353.91	6298.94	-44.80	76.36	-44.74	0.18	88.50	329.63
6400.00	1.71	358.08	6398.89	-45.03	79.52	-44.97	0.26	91.36	330.51
6500.00	1.39	3.36	6498.85	-45.01	82.22	-44.95	0.35	93.71	331.34
6600.00	1.28	12.23	6598.82	-44.70	84.52	-44.64	0.23	95.59	332.16
6700.00	1.09	32.24	6698.80	-43.96	86.41	-43.90	0.45	96.92	333.07
6800.00	1.22	42.13	6798.78	-42.74	88.01	-42.68	0.24	97.81	334.13
6900.00	1.24	51.65	6898.76	-41.17	89.47	-41.11	0.21	98.46	335.32
7000.00	1.29	56.06	6998.73	-39.39	90.77	-39.33	0.11	98.93	336.58
7100.00	1.27	64.57	7098.71	-37.46	91.88	-37.39	0.19	99.19	337.85
7110.00	1.27	70.02	7108.71	-37.26	91.96	-37.19	1.21	99.20	337.98