



Scientific Drilling

Gyroscopic Survey Report
for

DEVON

30-015-38044

Well Location	EDDY COUNTY, TEXAS
Well Name	TODD "36 B " STATE # 20 H
Rig Name	H & P 416
Survey Date	11/15/2010
Latitude	32.27 deg
North Reference	Grid North
Grid Correction	-0.32 deg
Depth Reference	RKB
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 157.10Azim (deg)
Definitive Survey	FINAL GYRO SURVEY
Operator	FRANK RENTERIA

Comments

25 FOOT KB



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Survey: FINAL GYRO SURVEY
Survey Date: 11/15/2010

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	0.08	219.45	100.00	0.03	-0.06	-0.05	0.08	0.07	219.45
200.00	0.15	93.75	200.00	0.13	-0.12	0.04	0.21	0.13	161.73
300.00	0.11	81.76	300.00	0.21	-0.12	0.27	0.05	0.29	113.43
400.00	0.17	158.66	400.00	0.39	-0.24	0.42	0.18	0.48	120.31
500.00	0.51	197.77	500.00	0.88	-0.81	0.33	0.39	0.88	157.56
600.00	1.04	199.54	599.99	1.88	-2.09	-0.10	0.52	2.09	182.86
700.00	1.10	201.55	699.97	3.23	-3.83	-0.76	0.07	3.91	191.21
800.00	1.17	201.04	799.95	4.65	-5.68	-1.48	0.07	5.86	194.59
900.00	0.94	205.40	899.93	5.93	-7.37	-2.20	0.24	7.69	196.59
1000.00	0.95	201.06	999.92	7.07	-8.88	-2.84	0.07	9.32	197.76
1100.00	0.93	198.33	1099.91	8.28	-10.42	-3.40	0.05	10.96	198.05
1200.00	0.83	196.06	1199.90	9.45	-11.89	-3.85	0.11	12.50	197.95
1300.00	0.72	197.98	1299.89	10.49	-13.18	-4.24	0.12	13.84	197.85
1400.00	0.71	195.28	1399.88	11.45	-14.37	-4.60	0.03	15.09	197.75
1500.00	0.64	187.98	1499.87	12.41	-15.52	-4.84	0.11	16.26	197.32
1600.00	0.67	181.40	1599.87	13.43	-16.66	-4.93	0.08	17.37	196.50
1700.00	0.58	184.89	1699.86	14.40	-17.74	-4.99	0.10	18.43	195.71
1800.00	0.53	181.05	1799.85	15.27	-18.71	-5.04	0.06	19.37	195.09
1900.00	0.40	182.32	1899.85	16.00	-19.51	-5.06	0.13	20.16	194.55
2000.00	0.36	177.48	1999.85	16.61	-20.17	-5.06	0.05	20.79	194.10
2100.00	0.16	64.37	2099.85	16.89	-20.42	-4.93	0.44	21.00	193.57
2200.00	0.17	57.67	2199.85	16.86	-20.28	-4.68	0.02	20.81	192.99
2300.00	0.24	31.75	2299.85	16.72	-20.02	-4.45	0.11	20.51	192.52
2400.00	0.35	41.84	2399.85	16.47	-19.62	-4.13	0.12	20.05	191.89
2500.00	0.47	55.82	2499.84	16.26	-19.16	-3.59	0.16	19.50	190.61
2600.00	0.65	62.59	2599.84	16.13	-18.67	-2.75	0.19	18.87	188.37
2700.00	0.83	62.16	2699.83	16.02	-18.07	-1.61	0.18	18.15	185.09
2800.00	0.89	63.69	2799.82	15.92	-17.40	-0.28	0.06	17.40	180.92
2900.00	0.90	63.69	2899.81	15.82	-16.70	1.12	0.02	16.74	176.16
3000.00	0.84	59.66	2999.80	15.68	-15.98	2.46	0.09	16.17	171.25
3100.00	0.81	58.85	3099.79	15.49	-15.25	3.70	0.03	15.69	166.37
3200.00	0.92	59.74	3199.77	15.28	-14.48	5.00	0.11	15.32	160.95
3300.00	1.04	78.15	3299.76	15.35	-13.89	6.58	0.33	15.37	154.64
3400.00	1.01	78.07	3399.74	15.69	-13.52	8.33	0.02	15.88	148.34
3500.00	0.90	58.25	3499.73	15.74	-12.92	9.87	0.35	16.26	142.62
3600.00	0.78	53.33	3599.72	15.46	-12.10	11.09	0.14	16.41	137.49
3700.00	0.86	58.36	3699.71	15.18	-11.29	12.28	0.10	16.68	132.62
3800.00	1.63	99.39	3799.69	15.83	-11.13	14.32	1.13	18.14	127.86



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Survey Date:		11/15/2010								
MD	Inc	Azim	TVD	VS	Northing	Easting	DLS	Closure Distance	Closure Angle	
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	deg	
3900.00	2.36	112.60	3899.62	18.05	-12.16	17.62	0.85	21.41	124.60	
4000.00	2.48	116.76	3999.54	21.17	-13.92	21.45	0.21	25.57	122.98	
4100.00	3.28	130.20	4099.41	25.37	-16.74	25.57	1.04	30.56	123.21	
4200.00	3.93	138.73	4199.21	31.17	-21.16	30.01	0.84	36.72	125.19	
4300.00	3.39	137.75	4299.01	37.21	-25.92	34.25	0.55	42.96	127.11	
4400.00	2.87	136.97	4398.86	42.35	-29.94	37.95	0.51	48.34	128.27	
4500.00	2.04	137.60	4498.77	46.38	-33.09	40.86	0.83	52.58	129.00	
4600.00	1.76	136.36	4598.71	49.50	-35.51	43.12	0.29	55.87	129.47	
4700.00	1.77	141.26	4698.66	52.41	-37.83	45.15	0.15	58.90	129.96	
4800.00	1.76	140.62	4798.62	55.36	-40.21	47.08	0.02	61.92	130.50	
4900.00	1.68	137.99	4898.57	58.22	-42.48	49.03	0.11	64.88	130.91	
5000.00	1.53	138.31	4998.53	60.86	-44.57	50.90	0.15	67.65	131.20	
5100.00	1.46	136.65	5098.50	63.32	-46.49	52.66	0.09	70.24	131.44	
5200.00	1.36	144.09	5198.47	65.67	-48.38	54.23	0.20	72.67	131.73	
5300.00	1.13	148.46	5298.44	67.80	-50.18	55.45	0.25	74.78	132.15	
5400.00	1.10	148.71	5398.43	69.73	-51.85	56.46	0.03	76.66	132.56	
5500.00	1.04	146.89	5498.41	71.57	-53.43	57.46	0.07	78.46	132.92	
5600.00	1.05	149.69	5598.39	73.37	-54.98	58.41	0.05	80.22	133.26	
5700.00	0.89	150.26	5698.38	75.06	-56.45	59.26	0.16	81.84	133.61	
5800.00	0.88	147.09	5798.37	76.59	-57.77	60.07	0.05	83.34	133.88	
5900.00	0.64	166.84	5898.36	77.89	-58.96	60.61	0.35	84.55	134.21	
6000.00	0.67	164.24	5998.35	79.02	-60.06	60.90	0.04	85.53	134.60	
6100.00	0.62	179.57	6098.34	80.10	-61.16	61.06	0.18	86.42	135.05	
6200.00	0.43	203.91	6198.34	80.85	-62.04	60.91	0.29	86.94	135.53	
6300.00	0.51	186.84	6298.34	81.49	-62.82	60.71	0.16	87.36	135.98	
6400.00	0.44	197.99	6398.33	82.17	-63.63	60.54	0.12	87.82	136.43	
6500.00	0.55	192.27	6498.33	82.85	-64.46	60.32	0.12	88.28	136.90	
6600.00	0.57	187.73	6598.32	83.67	-65.42	60.15	0.05	88.87	137.40	
6700.00	0.79	182.92	6698.32	84.72	-66.61	60.04	0.23	89.68	137.97	
6800.00	0.92	190.12	6798.31	86.02	-68.09	59.87	0.16	90.66	138.67	
6900.00	1.12	190.40	6898.29	87.50	-69.84	59.55	0.20	91.78	139.54	
7000.00	1.03	125.70	6998.28	89.09	-71.32	60.11	1.15	93.27	139.88	
7100.00	2.41	82.18	7098.23	90.40	-71.56	62.92	1.81	95.29	138.68	
7200.00	2.66	80.06	7198.13	91.47	-70.87	67.29	0.27	97.73	136.48	
7300.00	1.42	95.00	7298.07	92.57	-70.58	70.81	1.34	99.98	134.91	
7400.00	1.22	101.87	7398.04	93.75	-70.90	73.08	0.26	101.82	134.13	
7500.00	1.27	106.49	7498.02	95.06	-71.44	75.18	0.11	103.71	133.54	
7600.00	1.00	123.11	7598.00	96.49	-72.23	76.97	0.42	105.55	133.18	



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Survey: FINAL GYRO SURVEY

Survey Date: 11/15/2010

MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft	Closure Distance ft	Closure Angle deg
7700.00	0.93	132.89	7697.99	97.95	-73.26	78.29	0.18	107.22	133.10
7800.00	1.04	132.01	7797.97	99.51	-74.42	79.56	0.12	108.94	133.09
7900.00	1.06	136.76	7897.95	101.20	-75.70	80.87	0.09	110.78	133.11
8000.00	0.95	123.62	7997.94	102.77	-76.84	82.20	0.25	112.52	133.07
8100.00	0.89	96.42	8097.93	103.84	-77.38	83.67	0.44	113.97	132.77
8200.00	0.83	56.32	8197.92	104.09	-77.07	85.04	0.59	114.76	132.19
8300.00	0.55	4.90	8297.91	103.52	-76.19	85.68	0.65	114.65	131.64
8387.00	0.38	253.32	8384.91	103.12	-75.85	85.44	0.89	114.25	131.60