

Ocean Energy

New Mexico

Lea County

Sec. 3-T16S-R35E

Panther Martin State Com # 1 - SSDS Surveys

Ser: 2323/s41651/w

BHL: 1890's & 25496

H- 3-16s-35e

30-025-31102

SURVEY REPORT

12 May, 2000

Data Source: Information from Location

sperry-sun
DRILLING SERVICES
A Halliburton Company

Proposal Ref: pro4307

Sperry-Sun Drilling Services

Survey Report for Panther Martin State Com # 1

Data Source: Information from Location



Ocean Energy
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Lea County
Sec. 3-T16S-R35E

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
<i>Org. Hole</i>							
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
100.00	0.510	214.559	100.00	0.37 S	0.25 W	-0.09	0.51
200.00	0.670	207.179	199.99	1.25 S	0.77 W	-0.22	0.18
300.00	0.850	207.529	299.98	2.43 S	1.38 W	-0.33	0.18
400.00	0.980	210.709	399.97	3.82 S	2.16 W	-0.51	0.14
500.00	0.910	213.959	499.96	5.22 S	3.04 W	-0.77	0.09
600.00	0.820	209.529	599.95	6.50 S	3.84 W	-1.01	0.11
700.00	0.860	205.469	699.94	7.80 S	4.51 W	-1.13	0.07
800.00	0.900	206.249	799.92	9.18 S	5.18 W	-1.21	0.04
900.00	0.650	221.329	899.92	10.31 S	5.91 W	-1.43	0.32
1000.00	0.590	210.999	999.91	11.18 S	6.55 W	-1.69	0.13
1100.00	0.560	224.519	1099.90	11.97 S	7.15 W	-1.94	0.14
1200.00	0.490	215.609	1199.90	12.66 S	7.74 W	-2.21	0.11
1300.00	0.530	219.969	1299.90	13.37 S	8.29 W	-2.44	0.06
1400.00	0.540	222.569	1399.89	14.07 S	8.91 W	-2.74	0.03
1500.00	0.290	235.229	1499.89	14.56 S	9.43 W	-3.03	0.26
1600.00	0.260	213.049	1599.89	14.89 S	9.76 W	-3.21	0.11
1700.00	0.210	239.769	1699.89	15.18 S	10.05 W	-3.36	0.12
1800.00	0.220	247.149	1799.89	15.34 S	10.38 W	-3.60	0.03
1900.00	0.180	264.309	1899.89	15.43 S	10.72 W	-3.88	0.07
2000.00	0.230	283.279	1999.89	15.40 S	11.07 W	-4.21	0.08
2100.00	0.080	175.429	2099.88	15.43 S	11.26 W	-4.38	0.27
2200.00	0.220	155.629	2199.88	15.67 S	11.17 W	-4.20	0.15
2300.00	0.260	154.939	2299.88	16.05 S	11.00 W	-3.89	0.04
2400.00	0.260	157.499	2399.88	16.47 S	10.81 W	-3.56	0.01
2500.00	0.340	132.819	2499.88	16.88 S	10.51 W	-3.12	0.15
2600.00	0.250	145.479	2599.88	17.26 S	10.17 W	-2.66	0.11
2700.00	0.230	113.649	2699.88	17.52 S	9.86 W	-2.28	0.13
2800.00	0.220	118.329	2799.88	17.69 S	9.51 W	-1.89	0.02
2900.00	0.300	101.019	2899.88	17.83 S	9.08 W	-1.44	0.11
3000.00	0.270	74.949	2999.88	17.82 S	8.60 W	-1.00	0.13
3100.00	0.360	52.539	3099.87	17.57 S	8.12 W	-0.65	0.15
3200.00	0.470	357.439	3199.87	16.97 S	7.89 W	-0.68	0.40
3300.00	0.670	8.889	3299.87	15.98 S	7.82 W	-0.99	0.23
3400.00	0.840	354.149	3399.86	14.67 S	7.80 W	-1.49	0.26
3500.00	0.860	347.579	3499.85	13.21 S	8.04 W	-2.27	0.10
3600.00	0.920	346.559	3599.84	11.70 S	8.39 W	-3.18	0.06
3700.00	1.300	348.019	3699.82	9.81 S	8.81 W	-4.30	0.38
3800.00	1.410	344.029	3799.79	7.52 S	9.38 W	-5.72	0.14
3900.00	1.270	341.839	3899.76	5.28 S	10.07 W	-7.22	0.15

Continued...

Sperry-Sun Drilling Services

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Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
4000.00	1.300	347.629	3999.74	3.12 S	10.65 W	-8.61	0.13
4100.00	1.310	340.409	4099.71	0.93 S	11.28 W	-10.03	0.16
4200.00	1.260	345.579	4199.69	1.21 N	11.94 W	-11.47	0.13
4300.00	1.370	331.919	4299.66	3.33 N	12.77 W	-13.06	0.33
4400.00	1.220	335.059	4399.63	5.35 N	13.79 W	-14.78	0.17
4500.00	1.220	336.789	4499.61	7.29 N	14.65 W	-16.34	0.04
4600.00	1.250	331.609	4599.59	9.23 N	15.59 W	-17.95	0.12
4700.00	1.330	331.079	4699.56	11.20 N	16.67 W	-19.72	0.08
4800.00	1.350	334.049	4799.54	13.28 N	17.75 W	-21.51	0.07
4900.00	1.340	334.779	4899.51	15.40 N	18.76 W	-23.27	0.02
5000.00	1.460	335.139	4999.48	17.61 N	19.80 W	-25.08	0.12
5100.00	1.340	336.609	5099.45	19.84 N	20.80 W	-26.87	0.13
5200.00	1.380	338.739	5199.42	22.04 N	21.70 W	-28.55	0.06
5300.00	1.270	347.609	5299.39	24.24 N	22.37 W	-30.03	0.23
5400.00	1.070	353.919	5399.37	26.25 N	22.71 W	-31.12	0.24
5500.00	0.850	356.109	5499.36	27.92 N	22.86 W	-31.91	0.22
5600.00	0.550	355.449	5599.35	29.14 N	22.95 W	-32.47	0.30
5700.00	0.480	333.109	5699.35	29.99 N	23.17 W	-33.01	0.21
5800.00	0.540	334.359	5799.34	30.79 N	23.57 W	-33.68	0.06
5900.00	0.550	326.429	5899.34	31.61 N	24.04 W	-34.43	0.08
6000.00	0.540	308.049	5999.33	32.30 N	24.67 W	-35.29	0.17
6100.00	0.330	308.199	6099.33	32.77 N	25.27 W	-36.02	0.21
6200.00	0.250	257.119	6199.33	32.90 N	25.71 W	-36.47	0.26
6300.00	0.250	259.919	6299.33	32.81 N	26.14 W	-36.83	0.01
6400.00	0.160	291.249	6399.33	32.83 N	26.48 W	-37.16	0.14
6500.00	0.040	17.079	6499.33	32.91 N	26.60 W	-37.30	0.16
6600.00	0.060	22.859	6599.33	32.99 N	26.57 W	-37.30	0.02
6700.00	0.090	23.269	6699.33	33.11 N	26.52 W	-37.30	0.03
6800.00	0.070	72.179	6799.33	33.20 N	26.43 W	-37.26	0.07
6900.00	0.110	152.659	6899.33	33.14 N	26.33 W	-37.14	0.12
7000.00	0.270	160.949	6999.33	32.83 N	26.21 W	-36.90	0.16
7100.00	0.470	180.469	7099.32	32.20 N	26.13 W	-36.59	0.23
7200.00	0.540	182.569	7199.32	31.31 N	26.16 W	-36.27	0.07
7300.00	0.560	180.899	7299.32	30.36 N	26.19 W	-35.92	0.03
7400.00	0.410	207.479	7399.31	29.55 N	26.36 W	-35.77	0.27
7500.00	0.500	251.429	7499.31	29.09 N	26.94 W	-36.13	0.35
7600.00	0.430	252.099	7599.31	28.84 N	27.71 W	-36.74	0.07
7700.00	0.250	273.889	7699.31	28.74 N	28.28 W	-37.23	0.22
7800.00	0.240	353.949	7799.30	28.96 N	28.52 W	-37.54	0.32
7900.00	0.330	0.389	7899.30	29.46 N	28.54 W	-37.75	0.10
8000.00	0.670	40.369	7999.30	30.19 N	28.16 W	-37.68	0.47
8100.00	0.790	43.309	8099.29	31.14 N	27.31 W	-37.27	0.13
8200.00	0.990	44.019	8199.28	32.26 N	26.24 W	-36.71	0.20
8300.00	1.060	46.609	8299.26	33.52 N	24.97 W	-36.03	0.08
8400.00	1.030	45.009	8399.25	34.79 N	23.66 W	-35.32	0.04

Continued...

Sperry-Sun Drilling Services

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8500.00	1.020	45.989	8499.23	36.04 N	22.38 W	-34.63	0.02
8600.00	1.120	50.819	8599.21	37.28 N	20.98 W	-33.82	0.13
8700.00	1.330	52.889	8699.19	38.60 N	19.30 W	-32.78	0.21
8800.00	1.400	52.109	8799.16	40.05 N	17.41 W	-31.61	0.07
8900.00	1.430	51.669	8899.13	41.57 N	15.47 W	-30.41	0.03
9000.00	1.570	50.859	8999.10	43.21 N	13.43 W	-29.16	0.14
9100.00	1.550	49.869	9099.06	44.95 N	11.33 W	-27.91	0.03
9200.00	1.530	49.139	9199.02	46.69 N	9.29 W	-26.70	0.03
9300.00	1.530	49.469	9298.99	48.43 N	7.26 W	-25.51	0.01
9400.00	1.770	49.579	9398.95	50.30 N	5.07 W	-24.22	0.24
9500.00	1.830	49.129	9498.90	52.35 N	2.69 W	-22.82	0.06
9600.00	1.850	52.249	9598.85	54.38 N	0.21 W	-21.32	0.10
9700.00	1.660	53.339	9698.80	56.23 N	2.23 E	-19.79	0.19
9800.00	1.440	54.639	9798.76	57.83 N	4.42 E	-18.40	0.22
9900.00	1.300	57.749	9898.73	59.16 N	6.40 E	-17.09	0.16
10000.00	1.280	60.689	9998.71	60.31 N	8.34 E	-15.75	0.07
10100.00	0.940	50.289	10098.69	61.38 N	9.94 E	-14.69	0.39
10200.00	0.580	20.829	10198.68	62.38 N	10.75 E	-14.33	0.52

SSDS Surveys

10258.00	2.000	54.219	10256.67	63.24 N	11.68 E	-13.82	2.67
10288.00	3.000	63.419	10286.64	63.90 N	12.80 E	-13.03	3.58
10319.00	3.900	71.419	10317.58	64.60 N	14.53 E	-11.72	3.29
10351.00	4.700	82.519	10349.49	65.12 N	16.86 E	-9.77	3.60
10383.00	5.200	90.619	10381.37	65.27 N	19.61 E	-7.30	2.68
10415.00	5.700	99.419	10413.23	65.00 N	22.63 E	-4.41	3.04
10446.00	6.300	107.419	10444.06	64.24 N	25.77 E	-1.22	3.32
10478.00	6.500	117.719	10475.86	62.87 N	29.05 E	2.34	3.64
10509.00	6.600	127.719	10506.66	60.96 N	32.01 E	5.81	3.69
10541.00	6.600	129.119	10538.45	58.68 N	34.89 E	9.35	0.50
10574.00	6.500	132.419	10571.23	56.22 N	37.74 E	12.93	1.18
10606.00	5.900	133.519	10603.04	53.87 N	40.27 E	16.18	1.91
10638.00	5.800	126.819	10634.88	51.76 N	42.76 E	19.28	2.16
10670.00	5.400	118.419	10666.72	50.08 N	45.38 E	22.35	2.85
10700.00	5.300	114.719	10696.59	48.83 N	47.88 E	25.14	1.20
10732.00	5.900	113.619	10728.44	47.55 N	50.73 E	28.26	1.90
10765.00	6.900	113.919	10761.24	46.07 N	54.09 E	31.94	3.03
10797.00	7.400	116.319	10792.99	44.37 N	57.70 E	35.92	1.82
10828.00	7.000	118.219	10823.74	42.60 N	61.15 E	39.79	1.50
10860.00	7.300	116.819	10855.49	40.76 N	64.68 E	43.76	1.08
10892.00	7.900	116.119	10887.21	38.87 N	68.47 E	47.99	1.90
10923.00	8.800	114.519	10917.88	36.95 N	72.54 E	52.49	3.00
10955.00	9.900	114.219	10949.46	34.81 N	77.28 E	57.68	3.44
10987.00	10.800	115.219	10980.94	32.40 N	82.50 E	63.43	2.87
11019.00	11.200	116.919	11012.35	29.71 N	87.98 E	69.52	1.61

Continued...

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Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
11049.00	11.700	119.019	11041.75	26.92 N	93.24 E	75.45	2.17
11082.00	13.300	120.119	11073.97	23.39 N	99.45 E	82.55	4.90
11114.00	15.100	119.619	11104.99	19.48 N	106.26 E	90.34	5.64
11146.00	16.800	119.319	11135.76	15.16 N	113.92 E	99.07	5.32
11175.00	17.800	120.119	11163.44	10.88 N	121.40 E	107.63	3.54
11206.00	18.700	120.319	11192.88	6.00 N	129.79 E	117.26	2.91
11238.00	19.500	120.319	11223.12	0.71 N	138.83 E	127.65	2.50
11272.00	21.000	121.119	11255.02	5.30 S	148.95 E	139.30	4.49
11304.00	22.500	119.619	11284.74	11.29 S	159.18 E	151.06	5.00
11336.00	24.300	117.519	11314.11	17.36 S	170.34 E	163.70	6.20
11367.00	25.700	116.319	11342.20	23.29 S	182.03 E	176.77	4.80
11400.00	25.800	116.119	11371.93	29.62 S	194.89 E	191.08	0.40
11431.00	25.900	116.219	11399.82	35.58 S	207.02 E	204.58	0.35
11462.00	27.600	116.919	11427.51	41.83 S	219.50 E	218.50	5.58
11494.00	29.000	117.219	11455.68	48.73 S	233.00 E	233.63	4.40
11525.00	30.400	117.119	11482.61	55.74 S	246.67 E	248.94	4.52
11557.00	31.500	117.219	11510.05	63.26 S	261.31 E	265.35	3.44
11589.00	32.600	117.619	11537.17	71.08 S	276.38 E	282.28	3.50
11621.00	34.000	118.219	11563.92	79.30 S	291.90 E	299.78	4.49
11652.00	34.900	117.819	11589.48	87.54 S	307.39 E	317.25	2.99
11684.00	34.700	117.919	11615.76	96.08 S	323.53 E	335.44	0.65
11716.00	32.000	119.819	11642.49	104.56 S	338.94 E	352.93	9.05
11748.00	30.600	121.419	11669.83	113.02 S	353.25 E	369.40	5.09
11778.00	31.500	120.419	11695.53	120.97 S	366.52 E	384.73	3.46
11810.00	32.300	118.519	11722.70	129.29 S	381.24 E	401.52	4.01
11842.00	32.400	117.219	11749.73	137.29 S	396.38 E	418.58	2.20
11872.00	31.700	117.019	11775.16	144.55 S	410.55 E	434.45	2.36
11903.00	31.500	117.019	11801.56	151.93 S	425.02 E	450.66	0.65
11935.00	30.100	117.319	11829.05	159.41 S	439.60 E	466.99	4.40
11967.00	29.900	118.019	11856.76	166.84 S	453.77 E	482.94	1.26
11999.00	29.500	119.219	11884.56	174.43 S	467.69 E	498.71	2.24
12031.00	30.200	120.219	11912.31	182.33 S	481.52 E	514.52	2.68
12063.00	31.300	120.419	11939.81	190.59 S	495.64 E	530.75	3.45
12094.00	33.000	120.419	11966.06	198.94 S	509.86 E	547.10	5.48
12126.00	33.800	121.019	11992.77	207.94 S	525.01 E	564.55	2.70
12158.00	33.300	121.819	12019.44	217.16 S	540.10 E	582.04	2.09
12189.00	33.600	121.719	12045.31	226.15 S	554.63 E	598.92	0.98
12221.00	33.500	124.519	12071.98	235.81 S	569.44 E	616.32	4.85
12254.00	33.100	126.719	12099.56	246.36 S	584.16 E	633.99	3.86

All data is in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to RKB. Northings and Eastings are relative to Wellhead.
Coordinate System is NAD27 New Mexico State Planes, Eastern Zone, US Foot.

Grid Convergence at Surface is 0.481°. Magnetic Convergence at Surface is -8.405° (30-Mar-00)

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Wellhead and calculated along an Azimuth of 112.867° (Grid).

Sperry-Sun Drilling Services

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Based upon Minimum Curvature type calculations, at a Measured Depth of 12254.00ft.,
The Bottom Hole Displacement is 633.99ft., in the Direction of 112.867° (Grid).

Comments

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
10200.00	10198.68	62.38 N	10.75 E	Tie On to Gyro @ 10200' md
12254.00	12099.56	246.36 S	584.16 E	Last Survey @ 12254' md

Targets associated with this wellpath

Target Name	Target Entry Coordinates			Target Shape	Target Type
	TVD (ft)	Northings (ft)	Eastings (ft)		
Chevron State Target	12157.00	278.00 S	632.00 E	Circle	

Ocean Energy

***New Mexico
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Sec. 3-T16S-R35E
Panther Martin State Com # 1 - SSDS Sidetrack***

SURVEY REPORT

12 May, 2000

sperry-sun
DRILLING SERVICES
A Halliburton Company

Proposal Ref: pro4373

Sperry-Sun Drilling Services

Survey Report for Panther Martin State Com # 1 SSDS Sidetrack



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Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (* /100ft)
11903.00	31.500	117.019	11801.56	151.93 S	425.02 E	448.63	
11976.00	31.600	112.619	11863.78	167.95 S	459.67 E	486.79	3.16
12007.00	32.600	113.319	11890.04	174.38 S	474.83 E	503.24	3.44
12039.00	33.300	114.419	11916.89	181.42 S	490.75 E	520.63	2.88
12071.00	33.700	116.119	11943.58	188.96 S	506.72 E	538.29	3.19
12103.00	34.500	117.719	11970.08	197.09 S	522.71 E	556.23	3.76
12200.00	31.600	116.719	12051.37	221.29 S	569.74 E	609.11	3.04
12231.00	31.600	118.319	12077.78	228.80 S	584.15 E	625.35	2.70
12326.00	34.600	123.319	12157.37	255.43 S	628.62 E	676.99	4.27
12357.00	35.500	124.819	12182.75	265.41 S	643.36 E	694.61	4.02
12388.00	36.300	125.119	12207.86	275.83 S	658.26 E	712.57	2.64
12419.00	37.200	124.219	12232.70	286.37 S	673.51 E	730.90	3.38
12451.00	36.900	124.119	12258.24	297.20 S	689.46 E	749.99	0.96
12483.00	36.400	123.919	12283.91	307.89 S	705.30 E	768.90	1.61
12515.00	37.300	122.919	12309.52	318.46 S	721.31 E	787.93	3.38
12546.00	38.400	121.119	12333.99	328.54 S	737.44 E	806.84	5.03
12578.00	38.200	120.919	12359.11	338.76 S	754.44 E	826.60	0.74
12610.00	38.100	120.419	12384.27	348.84 S	771.44 E	846.30	1.01
12673.00	37.100	121.119	12434.19	368.50 S	804.47 E	884.60	1.73
12737.00	35.900	127.919	12485.65	390.02 S	835.81 E	922.20	6.59
12801.00	36.200	129.319	12537.40	413.53 S	865.24 E	958.95	1.37
12854.00	36.200	129.319	12580.17	433.36 S	889.45 E	989.41	0.00

All data is in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to RKB. Northings and Eastings are relative to Wellhead.
Coordinate System is NAD27 New Mexico State Planes, Eastern Zone, US Foot.

Grid Convergence at Surface is 0.481°. Magnetic Convergence at Surface is -8.396° (10-May-00)

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Wellhead and calculated along an Azimuth of 115.976° (Grid).

Based upon Minimum Curvature type calculations, at a Measured Depth of 12854.00ft.,
The Bottom Hole Displacement is 989.41ft., in the Direction of 115.976° (Grid).

Continued...

Sperry-Sun Drilling Services

Survey Report for Panther Martin State Com # 1 SSDS Sidetrack



Ocean Energy
New Mexico

Lea County
Sec. 3-T16S-R35E

Comments

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
11903.00	11801.56	151.93 S	425.02 E	Tie on for Sidetrack @ 11903' md
11976.00	11863.78	167.95 S	459.67 E	1st Sidetrack MWD Survey @ 11976' md
12801.00	12537.40	413.53 S	865.24 E	Last MWD Survey @ 12801' md
12854.00	12580.17	433.36 S	889.45 E	Projection to Bit @ 12854' md

