

RELEASED

APR 26 2000

FROM CONFIDENTIAL

SPERRY-SUN DRILLING SERVICES  
SURVEY DATA

*ATTN*

*DAVE LAPINSKIE*

*Max Billings H31  
25-22-23W*

Customer ... : BURIED HILLS PROD CO  
Platform ... : A  
Slot/Well .. : 1 /BILLINGS 1ST

CONFIDENTIAL

ORIGINAL

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00
587.25	0.40	95.40	587.25	0.19 S	2.04 E	-0.17	0.07
1053.39	1.10	23.90	1053.35	3.74 N	5.47 E	-4.64	0.22
1505.49	0.50	218.10	1505.43	6.16 N	6.01 E	-7.11	0.35
1957.59	1.20	94.00	1957.50	4.28 N	9.52 E	-5.87	0.34
2409.70	0.80	219.40	2409.57	1.51 N	12.24 E	-3.61	0.40
2871.15	0.90	220.10	2870.97	3.75 S	7.86 E	2.33	0.02
3346.65	0.60	211.10	3346.43	8.74 S	4.17 E	7.88	0.07
3822.15	1.10	237.60	3821.88	13.32 S	0.97 W	13.29	0.13
3900.00	1.60	241.00	3899.71	14.25 S	2.55 W	14.47	0.65
3947.31	2.10	235.50	3946.99	15.06 S	3.84 W	15.50	1.12
3979.13	5.60	213.80	3978.74	16.68 S	5.19 W	17.33	11.72
4010.86	9.10	200.60	4010.20	20.32 S	6.93 W	21.21	12.18
4042.54	14.10	197.80	4041.23	26.34 S	9.00 W	27.50	15.88
4074.20	17.00	190.20	4071.73	34.57 S	11.00 W	35.95	11.18
4105.93	20.00	199.30	4101.82	44.26 S	13.61 W	45.95	13.10
4137.62	21.60	199.30	4131.44	54.88 S	17.33 W	57.06	5.05
4169.33	23.90	198.40	4160.69	66.48 S	21.29 W	69.17	7.34
4201.01	25.70	197.90	4189.44	79.11 S	25.42 W	82.33	5.72
4232.61	26.70	192.80	4217.80	92.56 S	29.10 W	96.21	7.79
4264.58	27.70	185.40	4246.24	106.96 S	31.40 W	110.79	11.03
4296.34	31.60	187.60	4273.84	122.57 S	33.19 W	126.47	12.75
4327.92	34.00	184.70	4300.38	139.57 S	35.01 W	143.53	9.08
4359.77	36.40	184.70	4326.77	157.84 S	36.42 W	161.78	7.50
4391.52	39.20	179.30	4351.50	177.31 S	37.00 W	181.04	12.91
4431.97	42.50	180.90	4382.09	203.76 S	37.06 W	207.10	8.56
4463.71	46.00	182.10	4404.82	225.90 S	37.64 W	229.00	11.34
4478.00	47.50	184.00	4414.61	236.29 S	38.20 W	239.33	14.28
4493.93	49.30	184.20	4425.19	248.17 S	39.05 W	251.18	11.34
4525.58	54.90	186.00	4444.63	273.04 S	41.28 W	276.05	18.25
4557.16	59.90	187.90	4461.64	299.43 S	44.52 W	302.61	16.62
4588.97	64.70	191.80	4476.42	327.16 S	49.35 W	330.76	18.58
4620.72	68.50	194.40	4489.03	355.53 S	55.96 W	359.85	14.13
4652.47	70.80	193.40	4500.07	384.43 S	63.11 W	389.54	7.82
4684.25	74.90	194.40	4509.44	413.90 S	70.41 W	419.83	13.25
4716.06	79.60	192.50	4516.46	444.06 S	77.62 W	450.79	15.88
4747.79	83.60	193.50	4521.10	474.64 S	84.68 W	482.13	12.99
4754.00	83.90	193.50	4521.77	480.64 S	86.12 W	488.30	4.83

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NOV 20 1997

CONSERVATION DIVISION  
WICHITA, KS

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SPERRY-SUN DRILLING SERVICES  
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ORIGINAL

Customer ... FROM CONFIDENTIAL  
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Slot/Well ... : 1 /BILLINGS 1ST

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MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LBG
4812.00	86.00	192.00	4526.88	536.99 S	98.87 W	546.00	4.44
4827.70	88.20	193.20	4527.67	552.29 S	102.29 W	561.66	15.96
4859.46	93.10	192.90	4527.31	583.22 S	109.46 W	593.37	15.46
4891.29	95.80	191.70	4524.84	614.22 S	116.22 W	625.07	9.28
4923.11	95.40	191.60	4521.74	645.24 S	122.61 W	656.73	1.30
4954.86	94.90	190.10	4518.89	676.29 S	128.56 W	688.35	4.96
4986.61	93.20	190.30	4516.64	707.46 S	134.17 W	720.02	5.39
5018.27	91.40	189.20	4515.37	738.64 S	139.53 W	751.65	6.66
5049.98	91.80	188.90	4514.49	769.94 S	144.51 W	783.34	1.58
5081.54	90.10	189.20	4513.96	801.10 S	149.48 W	814.89	5.47
5113.27	87.30	189.40	4514.68	832.40 S	154.60 W	846.61	8.85
5145.00	85.50	191.20	4516.68	863.56 S	160.27 W	878.27	8.01
5176.66	86.40	188.40	4518.91	894.67 S	165.64 W	909.85	9.27
5208.42	88.00	187.70	4520.46	926.08 S	170.08 W	941.55	5.50
5240.20	90.70	187.90	4520.83	957.56 S	174.39 W	973.30	8.52
5271.93	90.90	187.60	4520.38	989.00 S	178.67 W	1005.00	1.14
5303.67	89.90	187.50	4520.16	1020.46 S	182.84 W	1036.71	3.17
5335.41	90.50	187.70	4520.05	1051.93 S	187.04 W	1068.42	1.99
5367.21	88.70	186.80	4520.27	1083.47 S	191.05 W	1100.18	6.33
5398.98	85.90	189.00	4521.77	1114.90 S	195.41 W	1131.89	11.20
5430.73	86.30	188.90	4523.93	1146.19 S	200.34 W	1163.56	1.30
5462.44	87.40	189.00	4525.67	1177.46 S	205.27 W	1195.22	3.48
5494.14	87.50	188.00	4527.08	1208.78 S	209.95 W	1226.88	3.17
5525.84	88.90	188.00	4528.08	1240.16 S	214.36 W	1258.54	4.42
5557.57	89.50	188.80	4528.52	1271.55 S	218.99 W	1290.25	3.15
5589.21	90.80	189.90	4528.44	1302.76 S	224.13 W	1321.89	5.38
5620.80	91.50	188.70	4527.80	1333.93 S	229.24 W	1353.47	4.40
5652.56	92.00	188.80	4526.83	1365.31 S	234.07 W	1385.21	1.61
5684.21	90.30	189.20	4526.20	1396.56 S	239.02 W	1416.85	5.52
5715.88	87.90	190.20	4526.69	1427.77 S	244.35 W	1448.51	8.21
5747.66	87.70	189.50	4527.91	1459.06 S	249.78 W	1480.27	2.29
5779.39	88.00	188.80	4529.10	1490.36 S	254.83 W	1511.97	2.40
5811.11	87.30	190.00	4530.41	1521.63 S	260.00 W	1543.66	4.38
5842.82	88.70	189.50	4531.51	1552.86 S	265.37 W	1575.35	4.69
5874.68	89.40	190.10	4532.04	1584.25 S	270.79 W	1607.20	2.89
5906.40	90.40	189.90	4532.10	1615.49 S	276.30 W	1638.92	3.22
5938.18	91.80	189.70	4531.49	1646.80 S	281.71 W	1670.70	4.45
5969.98	91.10	189.80	4530.68	1678.13 S	287.09 W	1702.49	2.22

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ORIGINAL

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MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
6001.63	90.80	189.20	4530.16	1709.34 S	292.31 W	1734.13	2.12
6033.33	90.80	190.10	4529.71	1740.59 S	297.63 W	1765.83	2.84
6064.95	89.60	190.30	4529.60	1771.71 S	303.23 W	1797.45	3.85
6096.53	89.10	190.30	4529.96	1802.78 S	308.87 W	1829.02	1.58
6128.32	88.60	190.90	4530.60	1834.02 S	314.72 W	1860.80	2.46
6160.03	87.30	192.40	4531.73	1865.05 S	321.12 W	1892.48	6.26
6191.81	90.10	191.90	4532.46	1896.11 S	327.80 W	1924.23	8.95
6223.53	91.80	192.30	4531.93	1927.12 S	334.45 W	1955.92	5.51
6255.28	90.70	192.40	4531.24	1958.13 S	341.24 W	1987.63	3.48
6286.95	86.90	190.90	4531.90	1989.13 S	347.63 W	2019.28	12.90
6318.89	86.80	191.70	4533.65	2020.41 S	353.88 W	2051.16	2.52
6350.57	88.50	188.70	4534.95	2051.55 S	359.49 W	2082.81	10.88
6382.32	90.30	189.20	4535.29	2082.92 S	364.42 W	2114.55	5.88
6414.69	91.70	187.50	4534.72	2114.94 S	369.12 W	2146.90	6.80
6445.69	91.60	187.90	4533.83	2145.64 S	373.28 W	2177.86	1.33
6477.41	90.20	188.30	4533.33	2177.04 S	377.75 W	2209.56	4.59
6509.16	90.30	187.40	4533.19	2208.49 S	382.08 W	2241.29	2.85
6540.90	91.20	186.60	4532.78	2239.99 S	385.95 W	2272.98	3.79
6572.60	92.00	186.70	4531.89	2271.47 S	389.62 W	2304.61	2.54
6604.33	92.50	188.30	4530.65	2302.90 S	393.76 W	2336.29	5.28
6636.04	92.30	187.20	4529.32	2334.29 S	398.03 W	2367.94	3.52
6667.88	93.50	188.00	4528.26	2365.64 S	402.24 W	2399.74	3.55
6699.66	89.90	188.20	4527.87	2397.30 S	406.72 W	2431.50	5.07
6731.46	90.00	188.40	4527.90	2428.76 S	411.31 W	2463.28	0.70
6763.21	92.30	187.40	4527.26	2460.20 S	415.67 W	2495.00	7.90
6794.97	94.90	187.70	4525.27	2491.62 S	419.83 W	2526.67	8.24
6856.00	95.00	187.70	4520.00	2551.88 S	427.98 W	2587.42	0.16

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THE DOGLEG SEVERITY IS IN DEGREES PER 100.00 FEET.  
N/E COORDINATE VALUES GIVEN RELATIVE TO WELL SYSTEM REFERENCE POINT.  
TVD COORDINATE VALUES GIVEN RELATIVE TO WELL SYSTEM REFERENCE POINT.  
THE VERTICAL SECTION ORIGIN IS WELL HEAD.  
THE VERTICAL SECTION WAS COMPUTED ALONG 190.02 (TRUE).  
CALCULATION METHOD: MINIMUM CURVATURE.

SURVEY 6856.00 IS A PROJECTION TO THE BIT

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