

Scientific Drilling International Survey Report

Company: PHILLIPS PETROLEUM Field: Vacuum Glorietta East Site: Lea County, NM Well: EVGSAU #3229-002 Wellpath: VH - Job #32K0401121	Date: 5/30/2002 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 08:40:09 Site: Lea County, NM, True North SITE 0.0 above Mean Sea Level Well (0.0E,0.0N,90.0Azi) Minimum Curvature	Page: 1
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Survey: 4/5/02 KSRG 0'-3848'	Start Date: 5/30/2002
Company: Scientific Drilling International Tool: Keeper	Engineer: Angel Guebara

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClsD ft	ClsA deg	DLS deg/100ft
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.00
100.0	0.17	198.86	100.0	0.0	-0.1	0.0	0.1	198.86	0.17
200.0	0.23	220.69	200.0	-0.2	-0.4	-0.2	0.5	207.64	0.10
300.0	0.35	214.81	300.0	-0.5	-0.8	-0.5	1.0	212.47	0.12
400.0	0.32	211.84	400.0	-0.9	-1.3	-0.9	1.6	212.81	0.03
500.0	0.92	220.98	500.0	-1.5	-2.2	-1.5	2.6	215.17	0.60
600.0	1.30	221.35	600.0	-2.8	-3.6	-2.8	4.6	217.71	0.38
700.0	1.40	229.98	699.9	-4.5	-5.3	-4.5	6.9	220.46	0.23
800.0	1.97	241.03	799.9	-6.9	-6.9	-6.9	9.8	225.21	0.66
900.0	2.02	244.52	899.8	-10.0	-8.5	-10.0	13.1	229.81	0.13
1000.0	2.12	238.53	999.8	-13.2	-10.2	-13.2	16.7	232.31	0.24
1100.0	1.97	245.00	1099.7	-16.3	-11.9	-16.3	20.2	233.95	0.27
1200.0	1.78	255.86	1199.7	-19.4	-13.0	-19.4	23.3	236.19	0.40
1300.0	1.64	266.64	1299.6	-22.3	-13.5	-22.3	26.1	238.93	0.35
1400.0	1.11	270.67	1399.6	-24.7	-13.5	-24.7	28.2	241.32	0.54
1500.0	0.84	278.99	1499.6	-26.4	-13.4	-26.4	29.6	243.11	0.30
1600.0	0.41	256.18	1599.6	-27.5	-13.4	-27.5	30.6	244.07	0.49
1700.0	0.47	275.26	1699.6	-28.3	-13.4	-28.3	31.3	244.60	0.16
1800.0	0.83	326.47	1799.6	-29.1	-12.8	-29.1	31.7	246.26	0.64
1900.0	0.45	256.07	1899.5	-29.8	-12.3	-29.8	32.3	247.64	0.80
2000.0	0.48	229.31	1999.5	-30.5	-12.6	-30.5	33.1	247.51	0.22
2100.0	0.94	179.75	2099.5	-30.9	-13.7	-30.9	33.8	246.01	0.72
2200.0	1.23	174.88	2199.5	-30.8	-15.6	-30.8	34.5	243.08	0.31
2300.0	1.17	163.47	2299.5	-30.4	-17.7	-30.4	35.1	239.82	0.25
2400.0	0.75	142.86	2399.5	-29.7	-19.2	-29.7	35.3	237.15	0.54
2500.0	0.52	99.79	2499.5	-28.8	-19.8	-28.8	35.0	235.57	0.52
2600.0	0.96	49.10	2599.5	-27.8	-19.3	-27.8	33.8	235.20	0.75
2700.0	1.07	49.91	2699.5	-26.4	-18.1	-26.4	32.0	235.51	0.11
2800.0	0.52	53.02	2799.4	-25.3	-17.3	-25.3	30.6	235.72	0.55
2900.0	0.15	102.62	2899.4	-24.8	-17.0	-24.8	30.1	235.58	0.44
3000.0	0.37	174.96	2999.4	-24.7	-17.4	-24.7	30.2	234.86	0.35
3100.0	0.09	254.25	3099.4	-24.7	-17.7	-24.7	30.4	234.39	0.36
3200.0	0.39	342.95	3199.4	-24.9	-17.4	-24.9	30.4	235.04	0.40
3300.0	0.49	347.50	3299.4	-25.1	-16.7	-25.1	30.1	236.41	0.11
3400.0	0.48	346.55	3399.4	-25.3	-15.8	-25.3	29.8	237.93	0.01
3500.0	0.32	293.64	3499.4	-25.6	-15.3	-25.6	29.9	239.13	0.38
3600.0	0.56	279.32	3599.4	-26.4	-15.1	-26.4	30.4	240.16	0.26
3700.0	0.89	273.23	3699.4	-27.6	-15.0	-27.6	31.4	241.49	0.34
3800.0	0.78	290.93	3799.4	-29.0	-14.7	-29.0	32.6	243.12	0.28
3848.0	0.98	298.40	3847.4	-29.7	-14.4	-29.7	33.0	244.12	0.48