

CIENFIC DRILLING SURVEY REPORT

Company: TEXACO E & P INC.
Field: Vacuum Glorieta West
Site: Lea County, NM
Well: VGWU #59
Wellpath: VHHH - Job #32K0699122/12

Date: 3/23/2000 Time: 14:48:19 Page: 2
Co-ordinate(NE) Reference: Site: Lea County, NM, True North
Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level
Section (VS) Reference: Slot (0.0E,0.0N,60.0Azi)
Survey Calculation Method: Minimum Curvature

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS d/100ft	ClsA deg	ClsD ft
4800.0	1.25	155.16	4798.6	-22.2	-3.4	-14.0	0.43	188.77	22.4
4900.0	1.26	157.39	4898.5	-24.2	-2.5	-14.3	0.05	185.99	24.3
5000.0	1.45	165.64	4998.5	-26.4	-1.8	-14.8	0.27	183.90	26.5
5100.0	1.57	162.31	5098.5	-28.9	-1.1	-15.4	0.15	182.12	28.9
5200.0	1.82	164.38	5198.4	-31.8	-0.2	-16.1	0.26	180.41	31.8
5300.0	1.62	163.40	5298.4	-34.6	0.6	-16.8	0.20	179.00	34.7
5400.0	1.62	160.89	5398.3	-37.3	1.5	-17.4	0.07	177.74	37.4
5500.0	1.52	155.89	5498.3	-39.9	2.5	-17.8	0.17	176.45	40.0
5600.0	1.50	155.83	5598.3	-42.3	3.6	-18.1	0.02	175.19	42.4
5700.0	1.64	152.76	5698.2	-44.8	4.7	-18.3	0.16	173.95	45.0
5800.0	1.27	157.22	5798.2	-47.1	5.8	-18.5	0.39	172.94	47.4
5859.0	1.30	153.30	5857.2	-48.3	6.4	-18.6	0.16	172.46	48.7
5893.0	15.00	68.10	5890.8	-46.9	10.7	-14.3	43.96	167.20	48.1
5903.0	18.70	69.20	5900.4	-45.9	13.4	-11.4	37.14	163.76	47.8
5923.0	26.20	69.90	5918.8	-43.2	20.5	-3.9	37.52	154.61	47.9
5933.0	29.90	67.10	5927.7	-41.5	24.9	0.8	39.26	149.05	48.4
5943.0	33.60	65.70	5936.2	-39.4	29.7	6.0	37.72	142.98	49.3
5953.0	37.20	64.60	5944.3	-37.0	35.0	11.8	36.56	136.59	50.9
5963.0	40.90	63.90	5952.1	-34.2	40.6	18.1	37.26	130.10	53.1
5973.0	44.40	62.90	5959.4	-31.2	46.7	24.8	35.65	123.74	56.1
5983.0	48.10	62.20	5966.3	-27.9	53.1	32.0	37.34	117.68	60.0
5993.0	51.90	61.10	5972.8	-24.2	59.8	39.7	38.92	112.03	64.6
6003.0	55.30	60.00	5978.7	-20.3	66.8	47.7	35.13	106.86	69.8
6019.0	61.50	58.30	5987.1	-13.3	78.5	61.4	39.79	99.59	79.6
6039.0	68.60	56.50	5995.5	-3.5	93.8	79.5	36.42	92.14	93.9
6059.0	75.20	55.10	6001.7	7.2	109.5	98.4	33.66	86.25	109.7
6071.0	77.70	55.10	6004.5	13.9	119.1	110.0	20.83	83.36	119.9
6103.0	82.90	56.90	6009.9	31.5	145.2	141.5	17.17	77.77	148.6
6135.0	87.80	58.30	6012.5	48.6	172.1	173.3	15.92	74.24	178.9
6167.0	88.90	58.60	6013.4	65.3	199.4	205.3	3.56	71.87	209.8
6196.0	90.10	59.30	6013.7	80.3	224.2	234.3	4.79	70.31	238.2
6228.0	90.00	59.30	6013.7	96.6	251.8	266.3	0.31	69.01	269.7
6259.0	90.80	57.60	6013.4	112.8	278.2	297.3	6.06	67.92	300.2
6291.0	90.80	56.90	6013.0	130.1	305.1	329.3	2.19	66.90	331.7
6322.0	90.50	55.80	6012.6	147.3	330.9	360.2	3.68	66.00	362.2
6354.0	90.80	55.50	6012.3	165.4	357.3	392.1	1.33	65.17	393.7
6385.0	88.50	56.50	6012.5	182.7	383.0	423.0	8.09	64.50	424.3
6415.0	87.00	56.90	6013.6	199.1	408.1	452.9	5.17	63.99	454.1
6447.0	88.00	56.50	6015.0	216.7	434.8	484.9	3.37	63.51	485.8
6479.0	89.20	56.50	6015.8	234.4	461.5	516.8	3.75	63.08	517.6
6510.0	87.90	56.50	6016.6	251.5	487.3	547.7	4.19	62.70	548.3
6542.0	86.90	57.60	6018.1	268.8	514.1	579.7	4.64	62.39	580.2
6574.0	88.50	57.60	6019.3	286.0	541.1	611.6	5.00	62.14	612.0
6605.0	90.00	58.60	6019.8	302.4	567.4	642.6	5.82	61.95	643.0
6637.0	88.90	58.60	6020.1	319.0	594.7	674.6	3.44	61.79	674.9
6669.0	89.30	58.60	6020.6	335.7	622.0	706.6	1.25	61.65	706.9
6701.0	88.00	58.30	6021.3	352.4	649.3	738.5	4.17	61.51	738.8
6733.0	87.80	58.30	6022.5	369.2	676.5	770.5	0.62	61.37	770.7
6765.0	88.00	57.60	6023.7	386.2	703.6	802.5	2.27	61.24	802.6
6795.0	87.80	58.30	6024.8	402.1	729.0	832.4	2.43	61.12	832.6
6827.0	87.50	57.90	6026.1	419.0	756.2	864.4	1.56	61.01	864.5
6859.0	88.10	57.90	6027.3	436.0	783.3	896.3	1.87	60.90	896.4