

Tekton Energy

Well Name: **Rancho Water Valley 11 #7-7-33-270-6-CH**

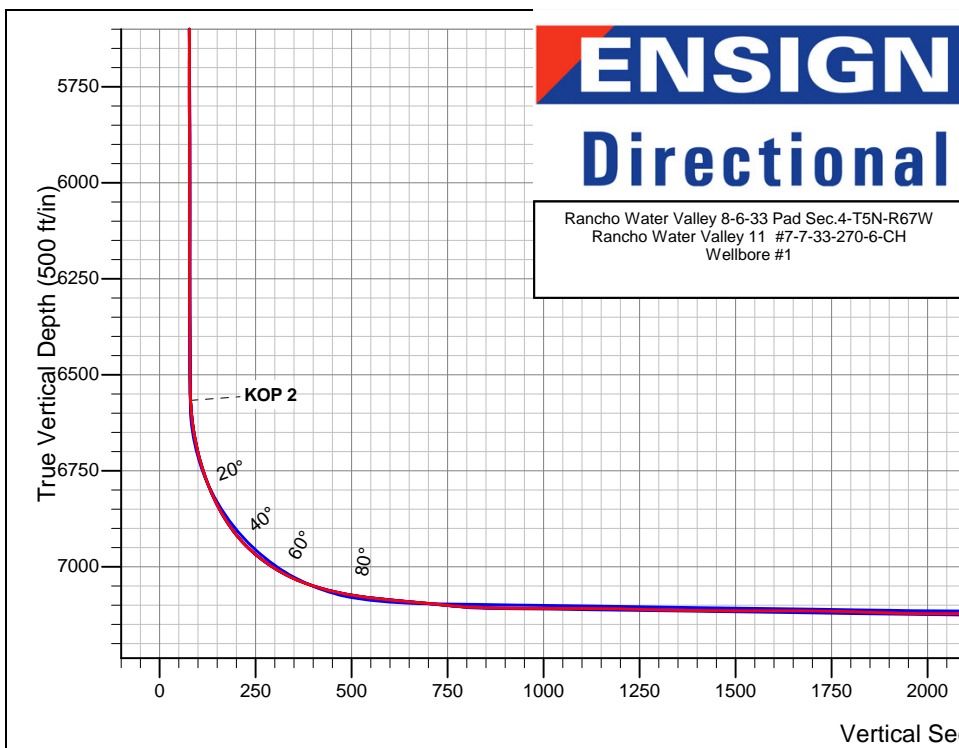
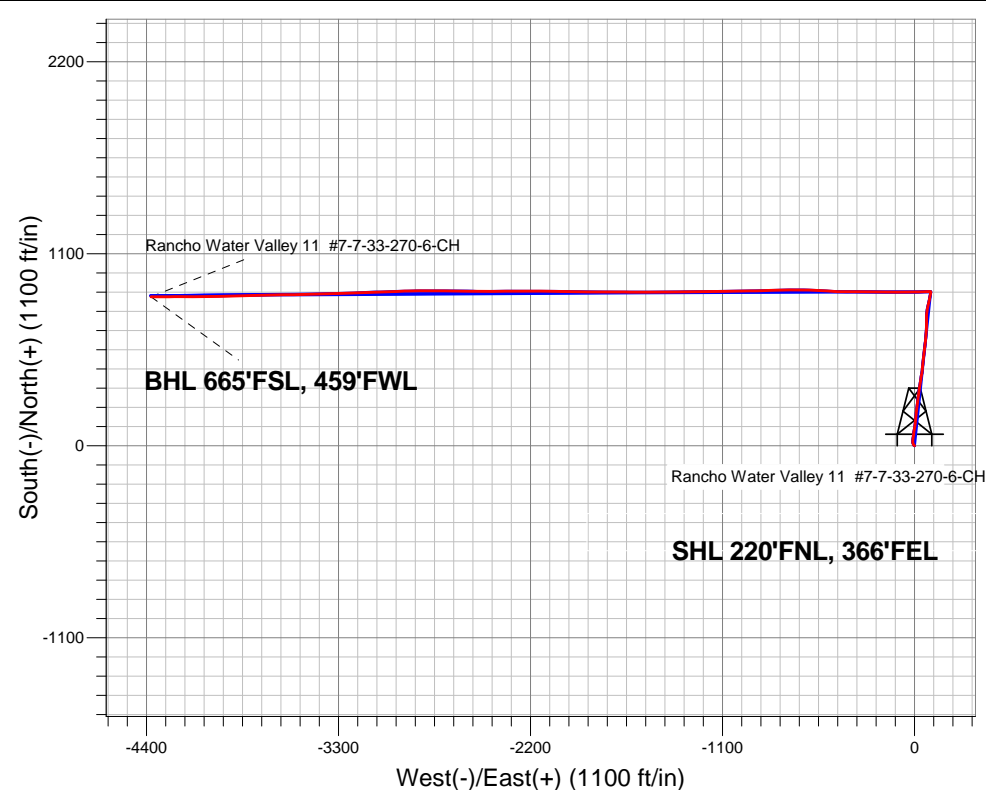
Surface Location: Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4775.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1402072.69	3170232.52	40.435480	-104.888450	
EST KB 17.5' RKB @ 4792.5ft (EST KB 17.5')						

FINAL SURVEY

Projected Bottom Hole Location
11412' MD 7101' TVD 855' N & 4375' W
of SHL
89.96 degree Incl @ 269.8 degree AZM



ENSIGN

Directional

Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W
Rancho Water Valley 11 #7-7-33-270-6-CH
Wellbore #1

LEGEND

- ✕ Rancho Water Valley 11 #7-7-33-270-6-CH, Wellbore #1, Plan #7 (3-13-13) V0
- △ Rancho Water Valley 11 #7-7-33-270-6-CH, Wellbore #1, Plan #4 Tied to Curve (3-09-13) V0
- Wellbore #1
- Survey #1



Directional

Tekton Energy

SEC.4-T5N-R67W

Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W

Rancho Water Valley 11 #7-7-33-270-6-CH

Wellbore #1

Survey: Survey #1

Standard Survey Report

15 March, 2013

Company:	Tekton Energy	Local Co-ordinate Reference:	Well Rancho Water Valley 11 #7-7-33-270-6-CH
Project:	SEC.4-T5N-R67W	TVD Reference:	RKB @ 4792.5ft (EST KB 17.5')
Site:	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	MD Reference:	RKB @ 4792.5ft (EST KB 17.5')
Well:	Rancho Water Valley 11 #7-7-33-270-6-CH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,109.0	10.80	6.20	1,105.5	57.8	-7.0	18.0	1.81	1.79	-1.58
1,208.0	11.60	9.20	1,202.6	76.9	-4.4	19.2	1.00	0.81	3.03
1,273.0	11.30	11.20	1,266.3	89.6	-2.1	19.4	0.77	-0.46	3.08
1,368.0	11.00	8.00	1,359.5	107.7	0.9	19.9	0.72	-0.32	-3.37
1,462.0	11.00	6.10	1,451.8	125.5	3.1	21.1	0.39	0.00	-2.02
1,558.0	10.50	5.40	1,546.1	143.3	4.9	22.8	0.54	-0.52	-0.73
1,653.0	10.10	6.40	1,639.6	160.2	6.7	24.4	0.46	-0.42	1.05
1,748.0	9.80	6.10	1,733.2	176.5	8.5	25.7	0.32	-0.32	-0.32
1,842.0	9.80	7.70	1,825.8	192.4	10.4	26.9	0.29	0.00	1.70
1,935.0	9.70	8.00	1,917.4	208.0	12.5	27.8	0.12	-0.11	0.32
2,027.0	9.40	4.30	2,008.2	223.2	14.2	29.1	0.74	-0.33	-4.02
2,118.0	9.00	4.10	2,098.0	237.7	15.2	30.9	0.44	-0.44	-0.22
2,210.0	9.20	7.00	2,188.8	252.2	16.7	32.3	0.54	0.22	3.15
2,302.0	9.70	9.40	2,279.6	267.1	18.8	33.1	0.69	0.54	2.61
2,394.0	10.50	9.60	2,370.2	283.0	21.5	33.5	0.87	0.87	0.22
2,487.0	11.30	8.40	2,461.5	300.4	24.2	34.2	0.89	0.86	-1.29
2,579.0	11.00	7.70	2,551.8	318.0	26.7	35.1	0.36	-0.33	-0.76
2,673.0	10.70	6.80	2,644.1	335.6	29.0	36.3	0.37	-0.32	-0.96
2,767.0	10.80	7.50	2,736.4	353.0	31.1	37.5	0.17	0.11	0.74
2,860.0	10.60	8.20	2,827.8	370.1	33.5	38.5	0.26	-0.22	0.75
2,954.0	9.10	11.00	2,920.4	385.9	36.1	39.0	1.67	-1.60	2.98
3,048.0	9.70	10.30	3,013.2	401.0	39.0	39.1	0.65	0.64	-0.74
3,142.0	9.10	9.60	3,105.9	416.1	41.6	39.4	0.65	-0.64	-0.74
3,236.0	8.90	7.10	3,198.7	430.7	43.8	40.1	0.47	-0.21	-2.66
3,329.0	9.50	7.70	3,290.5	445.4	45.7	41.1	0.65	0.65	0.65
3,422.0	9.60	5.90	3,382.3	460.7	47.5	42.2	0.34	0.11	-1.94
3,516.0	10.60	6.20	3,474.8	477.1	49.3	43.7	1.07	1.06	0.32
3,611.0	11.50	5.40	3,568.0	495.2	51.1	45.4	0.96	0.95	-0.84
3,704.0	12.60	4.10	3,659.0	514.6	52.7	47.6	1.22	1.18	-1.40
3,798.0	12.80	4.70	3,750.7	535.2	54.3	50.0	0.25	0.21	0.64
3,891.0	11.50	8.40	3,841.6	554.6	56.5	51.6	1.63	-1.40	3.98
3,985.0	10.90	8.40	3,933.8	572.7	59.1	52.4	0.64	-0.64	0.00
4,079.0	11.10	7.10	4,026.1	590.5	61.6	53.5	0.34	0.21	-1.38
4,173.0	11.00	5.90	4,118.3	608.4	63.6	54.9	0.27	-0.11	-1.28
4,267.0	11.50	4.00	4,210.5	626.6	65.2	56.9	0.66	0.53	-2.02
4,361.0	11.20	4.30	4,302.7	645.1	66.5	59.2	0.33	-0.32	0.32
4,455.0	10.30	4.80	4,395.0	662.6	67.9	61.2	0.96	-0.96	0.53
4,549.0	10.10	359.00	4,487.6	679.2	68.5	63.8	1.11	-0.21	-6.17
4,642.0	10.70	359.70	4,579.0	696.0	68.3	67.2	0.66	0.65	0.75
4,734.0	10.80	359.70	4,669.4	713.1	68.2	70.6	0.11	0.11	0.00
4,828.0	10.60	1.50	4,761.8	730.6	68.4	73.8	0.41	-0.21	1.91
4,920.0	8.80	4.00	4,852.5	746.1	69.1	76.1	2.01	-1.96	2.72
5,013.0	8.20	5.40	4,944.4	759.8	70.2	77.7	0.68	-0.65	1.51
5,107.0	7.20	6.80	5,037.6	772.3	71.5	78.8	1.08	-1.06	1.49
5,201.0	6.80	7.10	5,130.9	783.6	72.9	79.6	0.43	-0.43	0.32
5,295.0	6.20	12.40	5,224.3	794.1	74.7	79.9	0.90	-0.64	5.64
5,388.0	6.30	13.10	5,316.7	804.0	76.9	79.6	0.14	0.11	0.75
5,482.0	7.30	12.90	5,410.1	814.8	79.4	79.2	1.06	1.06	-0.21
5,576.0	6.70	12.00	5,503.4	826.0	81.9	79.0	0.65	-0.64	-0.96
5,670.0	6.70	15.90	5,596.7	836.7	84.5	78.4	0.48	0.00	4.15
5,764.0	5.80	12.80	5,690.2	846.6	87.1	77.8	1.02	-0.96	-3.30
5,858.0	4.70	9.20	5,783.8	855.0	88.8	77.8	1.22	-1.17	-3.83
5,951.0	3.80	9.80	5,876.5	861.8	89.9	78.0	0.97	-0.97	0.65

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Site:	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	MD Reference:	RKB @ 4792.5ft (EST KB 17.5')
Well:	Rancho Water Valley 11 #7-7-33-270-6-CH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,045.0	3.00	12.00	5,970.4	867.3	90.9	78.1	0.86	-0.85	2.34
6,139.0	2.60	11.00	6,064.2	871.8	91.9	78.0	0.43	-0.43	-1.06
6,233.0	2.20	9.20	6,158.2	875.7	92.5	78.1	0.43	-0.43	-1.91
6,326.0	1.80	6.80	6,251.1	878.9	93.0	78.3	0.44	-0.43	-2.58
6,420.0	1.10	355.70	6,345.1	881.2	93.1	78.6	0.80	-0.74	-11.81
6,514.0	0.90	350.30	6,439.1	882.9	92.9	79.1	0.23	-0.21	-5.74
6,545.0	0.90	346.20	6,470.1	883.3	92.8	79.3	0.21	0.00	-13.23
6,571.0	0.80	337.40	6,496.1	883.7	92.7	79.5	0.63	-0.38	-33.85
6,602.0	0.60	326.90	6,527.0	884.0	92.5	79.7	0.76	-0.65	-33.87
6,634.0	2.20	286.30	6,559.0	884.3	91.9	80.4	5.59	5.00	-126.88
6,665.0	4.50	272.70	6,590.0	884.6	90.1	82.2	7.80	7.42	-43.87
6,697.0	7.00	273.60	6,621.8	884.8	86.9	85.4	7.82	7.81	2.81
6,727.0	9.70	272.00	6,651.5	885.0	82.5	89.7	9.03	9.00	-5.33
6,758.0	12.40	270.80	6,681.9	885.1	76.6	95.6	8.74	8.71	-3.87
6,790.0	14.80	267.10	6,713.0	884.9	69.1	102.9	7.97	7.50	-11.56
6,821.0	17.80	265.90	6,742.8	884.4	60.4	111.3	9.74	9.68	-3.87
6,852.0	20.80	265.90	6,772.0	883.7	50.2	121.2	9.68	9.68	0.00
6,884.0	23.90	265.40	6,801.6	882.7	38.0	133.0	9.71	9.69	-1.56
6,915.0	26.70	266.10	6,829.6	881.8	24.8	145.7	9.08	9.03	2.26
6,940.0	28.90	268.00	6,851.8	881.2	13.2	157.0	9.49	8.80	7.60
6,971.0	32.60	269.60	6,878.4	880.8	-2.7	172.5	12.22	11.94	5.16
7,003.0	37.20	269.90	6,904.6	880.8	-21.0	190.5	14.38	14.38	0.94
7,034.0	41.90	270.40	6,928.5	880.8	-40.7	209.8	15.20	15.16	1.61
7,065.0	46.30	270.60	6,950.8	881.0	-62.3	231.0	14.20	14.19	0.65
7,097.0	50.90	270.80	6,971.9	881.3	-86.3	254.6	14.38	14.38	0.63
7,128.0	55.60	270.40	6,990.5	881.6	-111.1	279.1	15.20	15.16	-1.29
7,160.0	59.40	270.30	7,007.7	881.7	-138.1	305.6	11.88	11.88	-0.31
7,191.0	63.30	269.60	7,022.5	881.7	-165.3	332.2	12.74	12.58	-2.26
7,221.0	67.50	270.30	7,035.0	881.7	-192.6	359.0	14.16	14.00	2.33
7,252.0	71.20	270.80	7,046.0	882.0	-221.6	387.5	12.03	11.94	1.61
7,284.0	74.00	270.60	7,055.5	882.3	-252.1	417.5	8.77	8.75	-0.63
7,315.0	76.50	270.80	7,063.4	882.7	-282.1	447.0	8.09	8.06	0.65
7,346.0	79.10	271.00	7,070.0	883.2	-312.4	476.8	8.41	8.39	0.65
7,378.0	81.20	270.60	7,075.4	883.6	-343.9	507.9	6.68	6.56	-1.25
7,410.0	83.30	270.10	7,079.8	883.8	-375.6	539.0	6.74	6.56	-1.56
7,465.0	84.50	270.10	7,085.6	883.9	-430.3	592.7	2.18	2.18	0.00
7,478.0	84.33	272.91	7,086.9	884.2	-443.2	605.4	21.55	-1.31	21.62
7,507.0	84.50	273.18	7,089.7	885.8	-472.0	634.0	1.10	0.59	0.93
7,538.0	84.50	272.95	7,092.7	887.4	-502.8	664.6	0.74	0.00	-0.74
7,570.0	84.42	273.47	7,095.7	889.2	-534.6	696.1	1.64	-0.25	1.63
7,601.0	84.24	272.60	7,098.8	890.8	-565.4	726.7	2.85	-0.58	-2.81
7,633.0	84.94	272.79	7,101.8	892.3	-597.3	758.2	2.27	2.19	0.59
7,664.0	86.44	271.46	7,104.2	893.5	-628.2	788.7	6.46	4.84	-4.29
7,695.0	87.58	270.43	7,105.8	894.0	-659.1	819.2	4.95	3.68	-3.32
7,727.0	88.64	268.96	7,106.8	893.8	-691.1	850.5	5.66	3.31	-4.59
7,758.0	88.81	268.68	7,107.5	893.2	-722.1	880.8	1.06	0.55	-0.90
7,790.0	88.99	268.33	7,108.1	892.4	-754.1	912.0	1.23	0.56	-1.09
7,821.0	89.52	268.59	7,108.5	891.5	-785.0	942.3	1.90	1.71	0.84
7,852.0	89.69	268.74	7,108.7	890.8	-816.0	972.5	0.73	0.55	0.48
7,883.0	90.04	268.70	7,108.8	890.1	-847.0	1,002.8	1.14	1.13	-0.13
7,914.0	90.31	268.69	7,108.7	889.4	-878.0	1,033.1	0.87	0.87	-0.03
7,946.0	89.52	268.75	7,108.8	888.7	-910.0	1,064.3	2.48	-2.47	0.19
7,977.0	89.69	269.15	7,109.0	888.1	-941.0	1,094.6	1.40	0.55	1.29

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
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Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,008.0	89.96	269.01	7,109.1	887.6	-972.0	1,125.0	0.98	0.87	-0.45
8,039.0	89.34	268.69	7,109.3	887.0	-1,003.0	1,155.2	2.25	-2.00	-1.03
8,070.0	89.34	269.00	7,109.6	886.4	-1,034.0	1,185.5	1.00	0.00	1.00
8,101.0	88.11	268.70	7,110.3	885.8	-1,065.0	1,215.8	4.08	-3.97	-0.97
8,132.0	88.46	269.62	7,111.2	885.3	-1,096.0	1,246.1	3.17	1.13	2.97
8,164.0	88.55	269.73	7,112.1	885.1	-1,127.9	1,277.5	0.44	0.28	0.34
8,194.0	88.64	269.44	7,112.8	884.9	-1,157.9	1,306.9	1.01	0.30	-0.97
8,225.0	88.99	269.15	7,113.5	884.5	-1,188.9	1,337.2	1.47	1.13	-0.94
8,256.0	89.25	269.35	7,113.9	884.1	-1,219.9	1,367.5	1.06	0.84	0.65
8,287.0	89.34	268.99	7,114.3	883.7	-1,250.9	1,397.9	1.20	0.29	-1.16
8,319.0	89.52	268.70	7,114.6	883.0	-1,282.9	1,429.1	1.07	0.56	-0.91
8,350.0	90.04	269.11	7,114.8	882.4	-1,313.9	1,459.4	2.14	1.68	1.32
8,381.0	90.31	269.34	7,114.7	882.0	-1,344.9	1,489.8	1.14	0.87	0.74
8,413.0	90.04	269.49	7,114.6	881.7	-1,376.9	1,521.1	0.97	-0.84	0.47
8,444.0	90.13	269.45	7,114.5	881.4	-1,407.9	1,551.5	0.32	0.29	-0.13
8,475.0	89.78	269.25	7,114.5	881.0	-1,438.9	1,581.8	1.30	-1.13	-0.65
8,506.0	89.60	269.26	7,114.7	880.6	-1,469.9	1,612.1	0.58	-0.58	0.03
8,537.0	89.87	269.50	7,114.9	880.3	-1,500.9	1,642.5	1.17	0.87	0.77
8,569.0	89.60	270.46	7,115.0	880.3	-1,532.9	1,673.9	3.12	-0.84	3.00
8,601.0	89.60	270.33	7,115.2	880.5	-1,564.9	1,705.3	0.41	0.00	-0.41
8,632.0	88.81	270.12	7,115.7	880.6	-1,595.9	1,735.8	2.64	-2.55	-0.68
8,663.0	88.81	270.35	7,116.3	880.8	-1,626.9	1,766.2	0.74	0.00	0.74
8,695.0	88.20	270.73	7,117.1	881.1	-1,658.9	1,797.6	2.25	-1.91	1.19
8,726.0	88.02	270.73	7,118.2	881.5	-1,689.8	1,828.1	0.58	-0.58	0.00
8,757.0	88.37	270.93	7,119.1	881.9	-1,720.8	1,858.6	1.30	1.13	0.65
8,788.0	88.20	270.77	7,120.1	882.4	-1,751.8	1,889.1	0.75	-0.55	-0.52
8,819.0	88.37	270.35	7,121.0	882.7	-1,782.8	1,919.6	1.46	0.55	-1.35
8,850.0	88.64	269.48	7,121.8	882.6	-1,813.8	1,950.0	2.94	0.87	-2.81
8,882.0	89.52	269.70	7,122.3	882.4	-1,845.8	1,981.3	2.83	2.75	0.69
8,913.0	89.96	270.12	7,122.4	882.3	-1,876.8	2,011.7	1.96	1.42	1.35
8,944.0	90.31	270.32	7,122.4	882.5	-1,907.8	2,042.2	1.30	1.13	0.65
8,975.0	90.75	270.99	7,122.1	882.8	-1,938.8	2,072.6	2.59	1.42	2.16
9,006.0	90.66	271.07	7,121.7	883.4	-1,969.8	2,103.2	0.39	-0.29	0.26
9,037.0	90.40	271.13	7,121.4	884.0	-2,000.8	2,133.7	0.86	-0.84	0.19
9,068.0	90.40	271.54	7,121.2	884.7	-2,031.7	2,164.2	1.32	0.00	1.32
9,100.0	90.04	270.72	7,121.1	885.3	-2,063.7	2,195.7	2.80	-1.13	-2.56
9,131.0	90.40	271.14	7,121.0	885.8	-2,094.7	2,226.3	1.78	1.16	1.35
9,162.0	90.75	270.65	7,120.7	886.3	-2,125.7	2,256.8	1.94	1.13	-1.58
9,193.0	90.92	270.29	7,120.2	886.6	-2,156.7	2,287.2	1.28	0.55	-1.16
9,224.0	91.01	270.30	7,119.7	886.7	-2,187.7	2,317.7	0.29	0.29	0.03
9,255.0	91.01	269.75	7,119.1	886.7	-2,218.7	2,348.1	1.77	0.00	-1.77
9,287.0	91.01	269.62	7,118.6	886.6	-2,250.7	2,379.4	0.41	0.00	-0.41
9,318.0	91.01	268.94	7,118.0	886.2	-2,281.7	2,409.8	2.19	0.00	-2.19
9,349.0	91.36	269.58	7,117.4	885.8	-2,312.7	2,440.1	2.35	1.13	2.06
9,380.0	91.63	269.32	7,116.6	885.5	-2,343.7	2,470.5	1.21	0.87	-0.84
9,411.0	91.80	269.28	7,115.6	885.1	-2,374.7	2,500.8	0.56	0.55	-0.13
9,442.0	91.10	269.44	7,114.9	884.8	-2,405.6	2,531.1	2.32	-2.26	0.52
9,473.0	91.10	270.37	7,114.3	884.7	-2,436.6	2,561.5	3.00	0.00	3.00
9,504.0	91.36	270.64	7,113.6	885.0	-2,467.6	2,592.0	1.21	0.84	0.87
9,536.0	91.54	270.50	7,112.8	885.3	-2,499.6	2,623.4	0.71	0.56	-0.44
9,567.0	91.19	271.44	7,112.0	885.8	-2,530.6	2,653.9	3.23	-1.13	3.03
9,598.0	90.75	271.37	7,111.5	886.6	-2,561.6	2,684.5	1.44	-1.42	-0.23
9,630.0	90.13	271.04	7,111.3	887.3	-2,593.6	2,716.0	2.19	-1.94	-1.03

Company:	Tekton Energy	Local Co-ordinate Reference:	Well Rancho Water Valley 11 #7-7-33-270-6-CH
Project:	SEC.4-T5N-R67W	TVD Reference:	RKB @ 4792.5ft (EST KB 17.5')
Site:	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	MD Reference:	RKB @ 4792.5ft (EST KB 17.5')
Well:	Rancho Water Valley 11 #7-7-33-270-6-CH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,661.0	90.48	270.46	7,111.1	887.7	-2,624.6	2,746.5	2.19	1.13	-1.87
9,691.0	90.84	270.30	7,110.8	887.9	-2,654.6	2,776.0	1.31	1.20	-0.53
9,722.0	91.10	270.79	7,110.2	888.2	-2,685.6	2,806.5	1.79	0.84	1.58
9,754.0	91.19	270.41	7,109.6	888.5	-2,717.6	2,837.9	1.22	0.28	-1.19
9,785.0	90.92	269.74	7,109.0	888.5	-2,748.6	2,868.3	2.33	-0.87	-2.16
9,816.0	90.75	269.48	7,108.6	888.3	-2,779.6	2,898.7	1.00	-0.55	-0.84
9,848.0	90.22	269.14	7,108.3	887.9	-2,811.6	2,930.0	1.97	-1.66	-1.06
9,879.0	90.48	269.47	7,108.1	887.6	-2,842.5	2,960.4	1.36	0.84	1.06
9,911.0	90.48	269.31	7,107.9	887.2	-2,874.5	2,991.7	0.50	0.00	-0.50
9,942.0	90.57	269.60	7,107.6	886.9	-2,905.5	3,022.1	0.98	0.29	0.94
9,973.0	90.92	268.27	7,107.2	886.3	-2,936.5	3,052.4	4.44	1.13	-4.29
10,004.0	90.92	267.69	7,106.7	885.3	-2,967.5	3,082.5	1.87	0.00	-1.87
10,035.0	91.19	268.03	7,106.1	884.1	-2,998.5	3,112.7	1.40	0.87	1.10
10,065.0	91.28	267.95	7,105.5	883.0	-3,028.5	3,141.9	0.40	0.30	-0.27
10,095.0	91.54	268.45	7,104.7	882.1	-3,058.4	3,171.1	1.88	0.87	1.67
10,127.0	91.01	267.79	7,104.0	881.1	-3,090.4	3,202.3	2.64	-1.66	-2.06
10,158.0	90.92	267.60	7,103.5	879.8	-3,121.4	3,232.5	0.68	-0.29	-0.61
10,189.0	90.31	268.04	7,103.1	878.6	-3,152.4	3,262.6	2.43	-1.97	1.42
10,220.0	89.16	267.62	7,103.3	877.5	-3,183.3	3,292.8	3.95	-3.71	-1.35
10,252.0	89.43	268.23	7,103.7	876.3	-3,215.3	3,324.0	2.08	0.84	1.91
10,282.0	89.52	268.15	7,104.0	875.3	-3,245.3	3,353.2	0.40	0.30	-0.27
10,312.0	89.69	267.92	7,104.2	874.3	-3,275.3	3,382.4	0.95	0.57	-0.77
10,343.0	89.87	268.18	7,104.3	873.3	-3,306.3	3,412.6	1.02	0.58	0.84
10,373.0	90.04	268.11	7,104.3	872.3	-3,336.2	3,441.8	0.61	0.57	-0.23
10,404.0	90.40	268.13	7,104.2	871.3	-3,367.2	3,472.0	1.16	1.16	0.06
10,436.0	90.75	268.55	7,103.9	870.3	-3,399.2	3,503.3	1.71	1.09	1.31
10,467.0	90.22	268.19	7,103.6	869.5	-3,430.2	3,533.5	2.07	-1.71	-1.16
10,498.0	90.31	268.85	7,103.5	868.7	-3,461.2	3,563.7	2.15	0.29	2.13
10,529.0	90.13	268.86	7,103.3	868.0	-3,492.2	3,594.0	0.58	-0.58	0.03
10,561.0	90.04	268.43	7,103.3	867.3	-3,524.2	3,625.3	1.37	-0.28	-1.34
10,592.0	90.66	269.34	7,103.1	866.7	-3,555.2	3,655.6	3.55	2.00	2.94
10,623.0	91.01	269.63	7,102.7	866.4	-3,586.2	3,685.9	1.47	1.13	0.94
10,653.0	91.19	269.33	7,102.1	866.1	-3,616.1	3,715.3	1.17	0.60	-1.00
10,684.0	90.31	268.64	7,101.7	865.6	-3,647.1	3,745.6	3.61	-2.84	-2.23
10,716.0	89.60	268.76	7,101.7	864.9	-3,679.1	3,776.9	2.25	-2.22	0.38
10,747.0	89.69	268.75	7,101.9	864.2	-3,710.1	3,807.1	0.29	0.29	-0.03
10,779.0	89.52	268.17	7,102.1	863.3	-3,742.1	3,838.4	1.89	-0.53	-1.81
10,810.0	89.78	268.33	7,102.3	862.4	-3,773.1	3,868.6	0.98	0.84	0.52
10,841.0	89.96	268.44	7,102.4	861.5	-3,804.1	3,898.8	0.68	0.58	0.35
10,873.0	89.78	267.62	7,102.4	860.4	-3,836.1	3,930.0	2.62	-0.56	-2.56
10,904.0	89.96	267.78	7,102.5	859.2	-3,867.0	3,960.1	0.78	0.58	0.52
10,935.0	89.52	268.38	7,102.7	858.1	-3,898.0	3,990.3	2.40	-1.42	1.94
10,967.0	90.04	268.84	7,102.8	857.3	-3,930.0	4,021.6	2.17	1.63	1.44
10,998.0	90.40	269.13	7,102.7	856.8	-3,961.0	4,051.9	1.49	1.16	0.94
11,029.0	90.75	269.15	7,102.3	856.3	-3,992.0	4,082.2	1.13	1.13	0.06
11,060.0	90.13	269.40	7,102.1	855.9	-4,023.0	4,112.6	2.16	-2.00	0.81
11,091.0	90.31	269.80	7,102.0	855.7	-4,054.0	4,142.9	1.41	0.58	1.29
11,123.0	90.48	269.65	7,101.8	855.6	-4,086.0	4,174.3	0.71	0.53	-0.47
11,153.0	90.48	269.78	7,101.5	855.4	-4,116.0	4,203.7	0.43	0.00	0.43
11,183.0	90.92	270.09	7,101.2	855.4	-4,146.0	4,233.1	1.79	1.47	1.03
11,214.0	90.13	269.25	7,100.9	855.2	-4,177.0	4,263.5	3.72	-2.55	-2.71
11,245.0	90.57	269.41	7,100.7	854.8	-4,208.0	4,293.9	1.51	1.42	0.52
11,276.0	90.13	269.76	7,100.5	854.6	-4,239.0	4,324.2	1.81	-1.42	1.13

Company:	Tekton Energy	Local Co-ordinate Reference:	Well Rancho Water Valley 11 #7-7-33-270-6-CH
Project:	SEC.4-T5N-R67W	TVD Reference:	RKB @ 4792.5ft (EST KB 17.5')
Site:	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	MD Reference:	RKB @ 4792.5ft (EST KB 17.5')
Well:	Rancho Water Valley 11 #7-7-33-270-6-CH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,308.0	90.40	269.47	7,100.3	854.4	-4,271.0	4,355.6	1.24	0.84	-0.91
11,332.0	89.96	269.80	7,100.3	854.3	-4,295.0	4,379.1	2.29	-1.83	1.38
11,412.0	89.96	269.80	7,100.3	854.0	-4,375.0	4,457.5	0.00	0.00	0.00
BHL #11 660'FSL & 460'FWL									

Checked By: _____ Approved By: _____ Date: _____