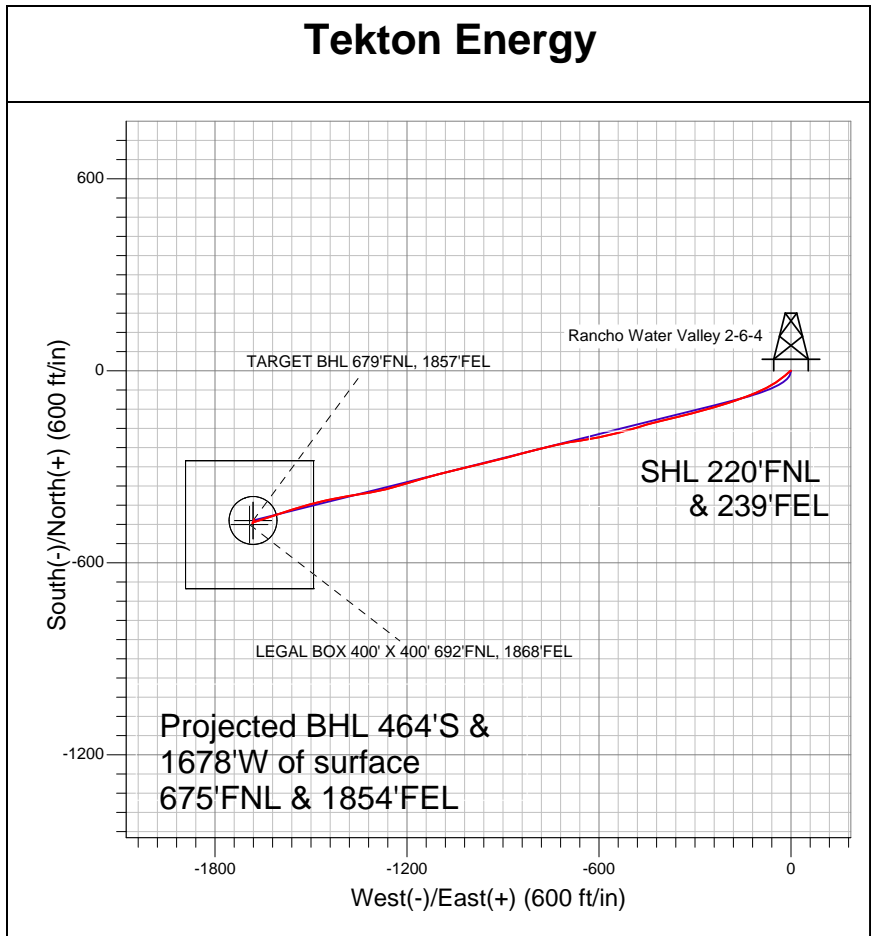
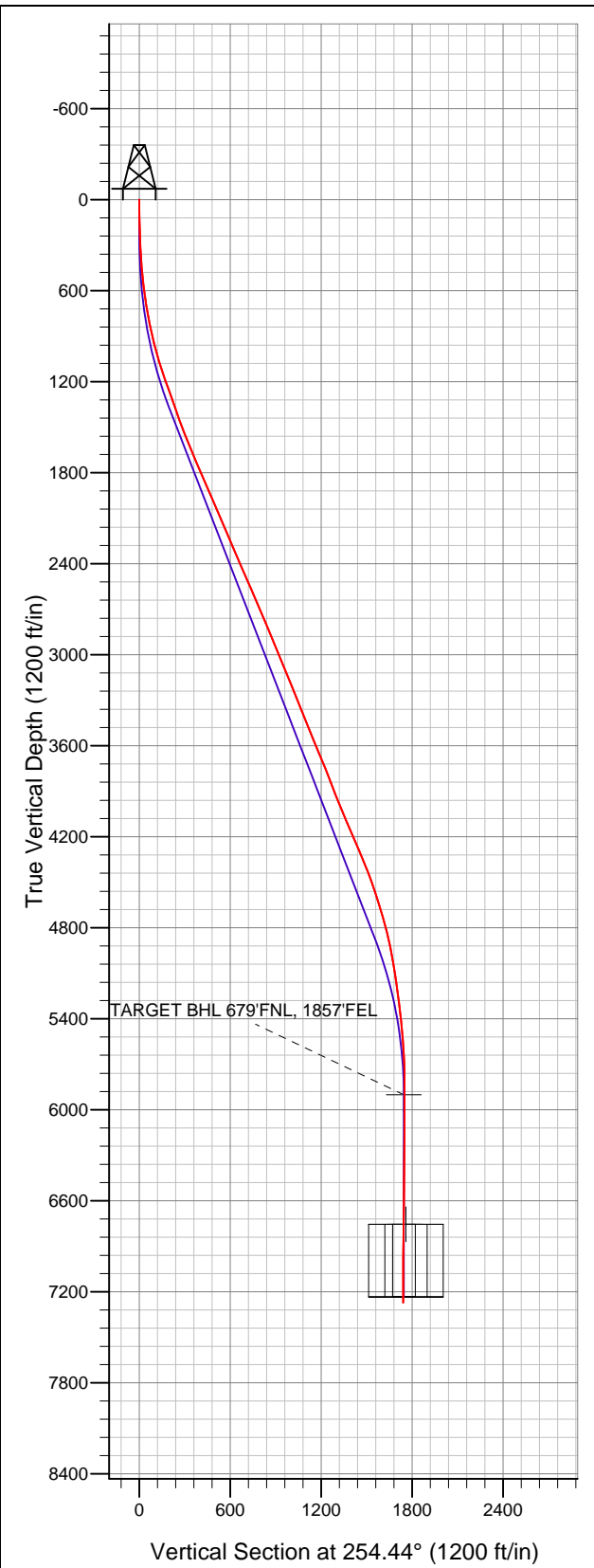


**Well Name: Rancho Water Valley 2-6-4**

Surface Location: Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W  
 North American Datum 1983 US State Plane 1983Colorado Northern Zone  
 Ground Elevation: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1402075.30	3170360.33	40.435485	-104.887991	
		Original Well Elev	WELL @ 0.0ft (Original Well Elev)			



LEGEND

- Survey #1
- Rancho Water Valley 2-6-4, Wellbore #1, Plan #3 (2-13-12) R VO
- Wellbore #1

## Final Survey Plot

Projected Final Survey -  
 7585'MD & 7271'TVD @ 1740'VS  
 0.10 deg Inc 210.80 deg AZ

Project: SEC.4-T5N-R67W  
 Site: Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W  
 Well: Rancho Water Valley 2-6-4  
 Plan: Wellbore #1



## **Tekton Energy**

**SEC.4-T5N-R67W**

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

**Rancho Water Valley 2-6-4**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**22 February, 2012**

<b>Company:</b>	Tekton Energy	<b>Local Co-ordinate Reference:</b>	Well Rancho Water Valley 2-6-4
<b>Project:</b>	SEC.4-T5N-R67W	<b>TVD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Site:</b>	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	<b>MD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Well:</b>	Rancho Water Valley 2-6-4	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.4-T5N-R67W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W				
<b>Site Position:</b>		<b>Northing:</b>	1,402,075.64 ft	<b>Latitude:</b>	40.435485
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,170,392.26 ft	<b>Longitude:</b>	-104.887876
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b>	0.40 °

<b>Well</b>	Rancho Water Valley 2-6-4					
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,402,075.30 ft	<b>Latitude:</b>	40.435485
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,170,360.33 ft	<b>Longitude:</b>	-104.887991
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	0.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2/13/2012	8.85	67.04	53,106

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>		<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
		0.0	0.0	0.0	254.44

<b>Survey Program</b>	<b>Date</b>	2/21/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
128.0	7,585.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
128.0	1.20	256.80	128.0	-0.3	-1.3	1.3	0.94	0.94	0.00	
250.0	2.00	229.70	249.9	-2.0	-4.2	4.5	0.89	0.66	-22.21	
373.0	4.20	229.40	372.8	-6.3	-9.2	10.6	1.79	1.79	-0.24	
495.0	6.10	227.30	494.3	-13.6	-17.4	20.4	1.56	1.56	-1.72	
619.0	7.90	231.80	617.3	-23.3	-28.9	34.1	1.52	1.45	3.63	
744.0	10.40	235.40	740.7	-35.1	-45.0	52.7	2.05	2.00	2.88	
869.0	12.90	242.30	863.2	-48.0	-66.6	77.0	2.29	2.00	5.52	
994.0	15.80	244.10	984.2	-61.9	-94.3	107.4	2.35	2.32	1.44	
1,118.0	18.10	248.00	1,102.8	-76.5	-127.3	143.2	2.07	1.85	3.15	
1,226.0	19.10	251.90	1,205.2	-88.2	-159.7	177.5	1.48	0.93	3.61	
1,272.0	19.10	251.90	1,248.7	-92.9	-174.0	192.5	0.00	0.00	0.00	

<b>Company:</b>	Tekton Energy	<b>Local Co-ordinate Reference:</b>	Well Rancho Water Valley 2-6-4
<b>Project:</b>	SEC.4-T5N-R67W	<b>TVD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Site:</b>	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	<b>MD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Well:</b>	Rancho Water Valley 2-6-4	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
1,301.0	19.50	252.00	1,276.0	-95.9	-183.1	202.1	1.38	1.38	0.34
1,425.0	19.30	252.00	1,393.0	-108.6	-222.3	243.3	0.16	-0.16	0.00
1,550.0	20.70	255.40	1,510.5	-120.6	-263.3	286.0	1.46	1.12	2.72
1,675.0	22.90	254.70	1,626.5	-132.6	-308.1	332.4	1.77	1.76	-0.56
1,799.0	23.30	257.00	1,740.6	-144.4	-355.3	381.0	0.80	0.32	1.85
1,924.0	23.40	256.20	1,855.3	-155.9	-403.5	430.5	0.27	0.08	-0.64
2,049.0	22.80	254.50	1,970.3	-168.3	-451.0	479.6	0.72	-0.48	-1.36
2,174.0	23.30	253.90	2,085.3	-181.6	-498.0	528.5	0.44	0.40	-0.48
2,298.0	23.40	254.10	2,199.2	-195.2	-545.3	577.7	0.10	0.08	0.16
2,423.0	23.10	259.00	2,314.0	-206.7	-593.2	626.9	1.57	-0.24	3.92
2,548.0	23.80	261.40	2,428.7	-215.1	-642.2	676.4	0.95	0.56	1.92
2,672.0	23.60	259.60	2,542.3	-223.3	-691.4	726.0	0.61	-0.16	-1.45
2,797.0	23.70	257.20	2,656.8	-233.4	-740.5	776.0	0.77	0.08	-1.92
2,922.0	23.10	256.20	2,771.5	-244.8	-788.8	825.6	0.58	-0.48	-0.80
3,046.0	22.40	255.00	2,885.8	-256.8	-835.3	873.5	0.68	-0.56	-0.97
3,171.0	22.70	254.90	3,001.3	-269.2	-881.6	921.5	0.24	0.24	-0.08
3,296.0	22.10	256.20	3,116.9	-281.1	-927.7	969.1	0.62	-0.48	1.04
3,419.0	22.00	256.30	3,230.9	-292.1	-972.5	1,015.2	0.09	-0.08	0.08
3,544.0	22.30	257.10	3,346.6	-302.9	-1,018.4	1,062.3	0.34	0.24	0.64
3,669.0	21.50	256.20	3,462.6	-313.7	-1,063.8	1,108.9	0.69	-0.64	-0.72
3,793.0	22.20	254.10	3,577.7	-325.5	-1,108.4	1,155.1	0.85	0.56	-1.69
3,918.0	22.90	254.50	3,693.2	-338.5	-1,154.5	1,203.0	0.57	0.56	0.32
4,043.0	21.40	252.50	3,808.9	-351.8	-1,199.7	1,250.1	1.34	-1.20	-1.60
4,167.0	21.20	254.80	3,924.5	-364.5	-1,242.9	1,295.1	0.69	-0.16	1.85
4,292.0	23.00	259.00	4,040.3	-375.1	-1,288.7	1,342.1	1.92	1.44	3.36
4,417.0	23.50	259.80	4,155.1	-384.2	-1,337.2	1,391.2	0.47	0.40	0.64
4,541.0	23.60	261.40	4,268.8	-392.3	-1,386.1	1,440.5	0.52	0.08	1.29
4,666.0	22.10	258.20	4,384.0	-400.8	-1,433.8	1,488.8	1.56	-1.20	-2.56
4,791.0	19.80	255.40	4,500.7	-411.0	-1,477.3	1,533.4	2.01	-1.84	-2.24
4,915.0	17.50	254.00	4,618.2	-421.4	-1,515.6	1,573.1	1.89	-1.85	-1.13
5,040.0	16.20	253.40	4,737.8	-431.6	-1,550.4	1,609.3	1.05	-1.04	-0.48
5,165.0	12.50	253.00	4,858.9	-440.5	-1,580.0	1,640.3	2.96	-2.96	-0.32
5,290.0	10.70	251.60	4,981.4	-448.1	-1,604.0	1,665.4	1.46	-1.44	-1.12
5,415.0	8.90	250.10	5,104.5	-455.1	-1,624.1	1,686.6	1.45	-1.44	-1.20
5,539.0	7.60	250.70	5,227.2	-461.1	-1,640.8	1,704.4	1.05	-1.05	0.48
5,664.0	6.60	251.30	5,351.3	-466.1	-1,655.4	1,719.8	0.80	-0.80	0.48
5,788.0	5.40	257.30	5,474.6	-469.7	-1,667.9	1,732.7	1.09	-0.97	4.84
5,913.0	3.70	249.70	5,599.2	-472.3	-1,677.4	1,742.6	1.44	-1.36	-6.08
6,038.0	1.50	217.90	5,724.1	-475.0	-1,682.2	1,748.0	2.04	-1.76	-25.44
6,162.0	0.10	104.10	5,848.1	-476.3	-1,683.1	1,749.2	1.24	-1.13	-91.77
6,213.9	0.06	104.10	5,900.0	-476.4	-1,683.0	1,749.1	0.08	-0.08	0.00
<b>TARGET BHL 679'FNL, 1857'FEL</b>									
6,286.0	0.00	155.50	5,972.1	-476.4	-1,683.0	1,749.1	0.08	-0.08	0.00
6,411.0	0.40	90.90	6,097.1	-476.4	-1,682.6	1,748.7	0.32	0.32	0.00
6,536.0	0.30	349.20	6,222.1	-476.1	-1,682.2	1,748.2	0.44	-0.08	-81.36
6,661.0	0.70	25.90	6,347.1	-475.1	-1,681.9	1,747.7	0.39	0.32	29.36
6,785.0	0.80	20.40	6,471.0	-473.6	-1,681.3	1,746.7	0.10	0.08	-4.44
6,910.0	1.20	24.10	6,596.0	-471.5	-1,680.4	1,745.3	0.32	0.32	2.96
7,035.0	1.80	20.40	6,721.0	-468.5	-1,679.2	1,743.3	0.49	0.48	-2.96
7,067.7	1.51	21.31	6,753.6	-467.6	-1,678.9	1,742.8	0.89	-0.89	2.80
<b>LEGAL BOX 400' X 400' 692'FNL, 1868'FEL</b>									
7,068.0	1.51	21.33	6,754.0	-467.6	-1,678.9	1,742.8	0.89	-0.89	3.34
<b>TARGET CIRCLE 679'FNL, 1857'FEL</b>									

<b>Company:</b>	Tekton Energy	<b>Local Co-ordinate Reference:</b>	Well Rancho Water Valley 2-6-4
<b>Project:</b>	SEC.4-T5N-R67W	<b>TVD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Site:</b>	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	<b>MD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Well:</b>	Rancho Water Valley 2-6-4	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
7,159.0	0.70	27.90	6,844.9	-466.0	-1,678.2	1,741.7	0.89	-0.89	7.23	
7,284.0	0.40	356.20	6,969.9	-464.9	-1,677.9	1,741.1	0.33	-0.24	-25.36	
7,409.0	0.40	10.10	7,094.9	-464.0	-1,677.8	1,740.8	0.08	0.00	11.12	
7,539.0	0.10	210.80	7,224.9	-463.7	-1,677.8	1,740.7	0.38	-0.23	-122.54	
7,585.0	0.10	210.80	7,270.9	-463.8	-1,677.8	1,740.7	0.00	0.00	0.00	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_