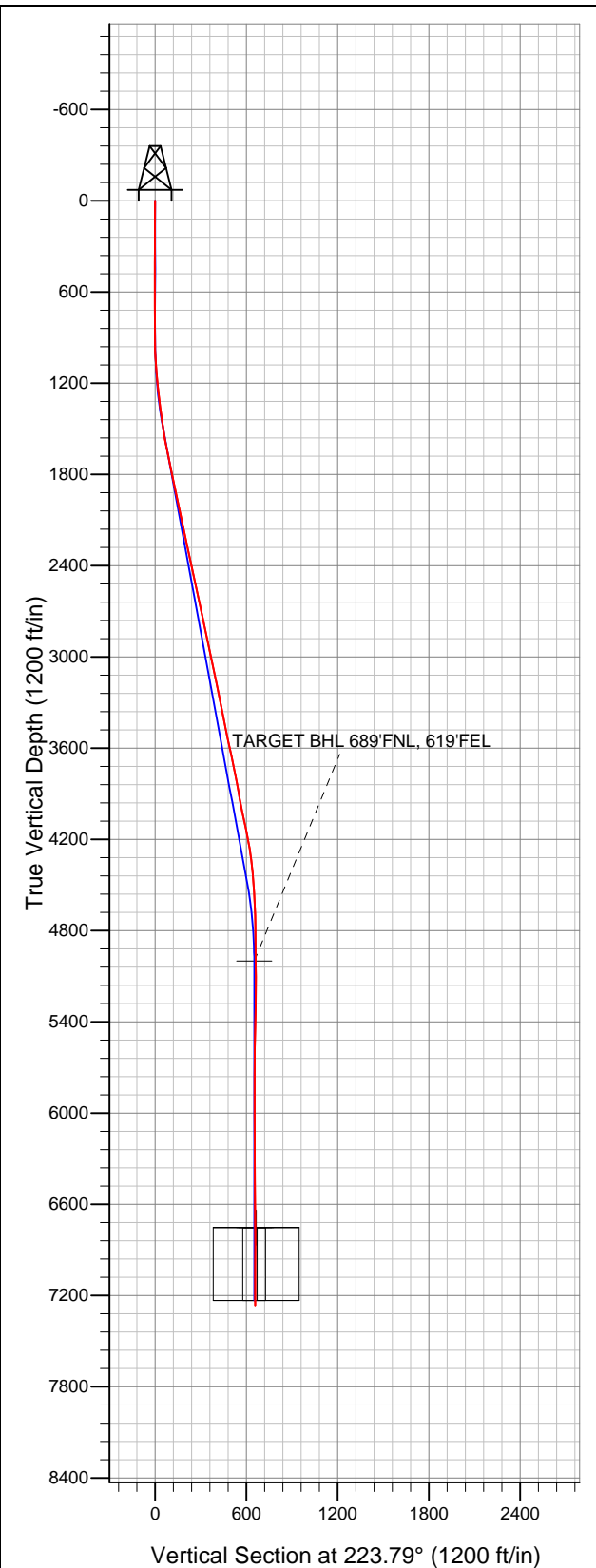


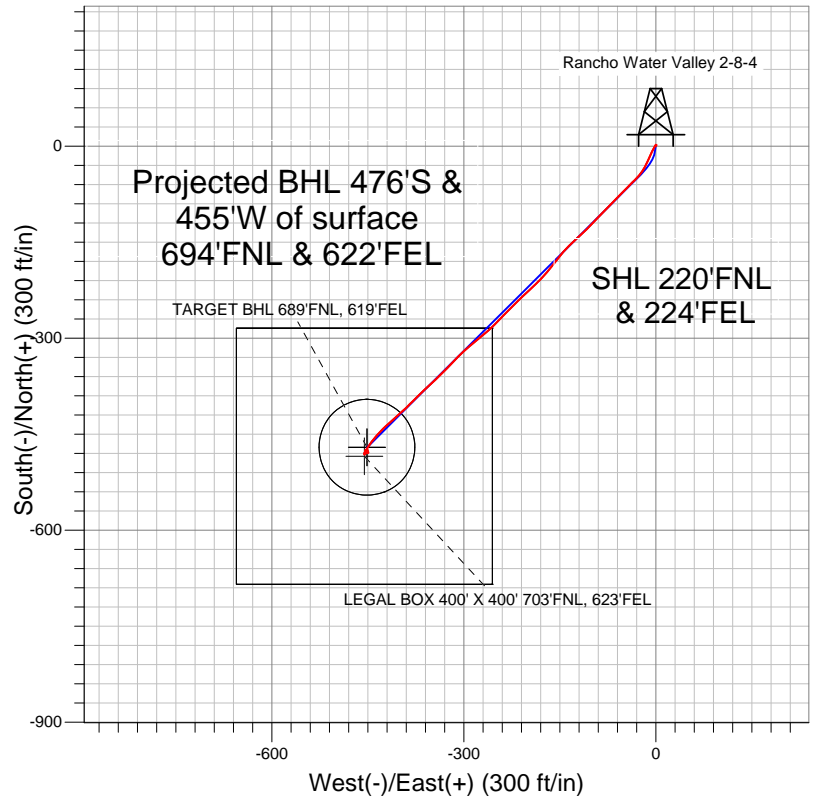
Well Name: Rancho Water Valley 2-8-4

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: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1402075.44	3170376.33	40.435485	-104.887933	
		Original Well Elev WELL @ 0.0ft (Original Well Elev)				



Tekton Energy



LEGEND

- Survey #1
- ◇ Rancho Water Valley 2-8-4, Wellbore #1, Plan #3 (2-6-12) R V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
7328'MD & 7265'TVD @ 658'VS
0.50 deg Inc 339.00 deg AZ

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



Tekton Energy

SEC.4-T5N-R67W

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

Rancho Water Valley 2-8-4

Wellbore #1

Survey: Survey #1

Standard Survey Report

14 February, 2012

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

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

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

Well	Rancho Water Valley 2-8-4				
Well Position	+N-S	0.0 ft	Northing:	1,402,075.44 ft	Latitude: 40.435485
	+E-W	0.0 ft	Easting:	3,170,376.33 ft	Longitude: -104.887933
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level: 0.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/1/2012	8.85	67.04	53,110

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	5,000.0	0.0	0.0	223.79	

Survey Program		Date	2/14/2012	
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
160.0	7,328.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

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)
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	160.0	0.40	20.30	160.0	0.5	0.2	-0.5	0.25	0.25	0.00
	221.0	0.40	298.40	221.0	0.8	0.1	-0.7	0.86	0.00	-134.26
	282.0	0.40	34.40	282.0	1.1	0.0	-0.8	0.97	0.00	157.38
	404.0	0.30	55.20	404.0	1.6	0.5	-1.5	0.13	-0.08	17.05
	527.0	0.20	151.30	527.0	1.6	0.9	-1.8	0.31	-0.08	78.13
	652.0	0.60	291.20	652.0	1.7	0.4	-1.5	0.61	0.32	111.92
	776.0	0.10	149.80	776.0	1.8	-0.2	-1.2	0.55	-0.40	-114.03
	901.0	0.40	233.20	901.0	1.5	-0.5	-0.7	0.32	0.24	66.72
	1,026.0	3.10	208.50	1,025.9	-1.8	-2.4	3.0	2.19	2.16	-19.76
	1,151.0	5.50	205.80	1,150.6	-10.1	-6.7	11.9	1.93	1.92	-2.16
	1,229.0	6.30	204.10	1,228.1	-17.4	-10.0	19.5	1.05	1.03	-2.18

Company:	Tekton Energy	Local Co-ordinate Reference:	Well Rancho Water Valley 2-8-4
Project:	SEC.4-T5N-R67W	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Well:	Rancho Water Valley 2-8-4	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)
1,275.0	6.30	204.10	1,273.9	-22.0	-12.1	24.3	0.00	0.00	0.00
1,332.0	7.70	204.80	1,330.4	-28.3	-15.0	30.8	2.46	2.46	1.23
1,457.0	7.90	217.90	1,454.3	-42.7	-23.8	47.3	1.43	0.16	10.48
1,581.0	10.10	226.30	1,576.8	-57.0	-36.9	66.6	2.06	1.77	6.77
1,706.0	11.60	223.20	1,699.5	-73.7	-53.4	90.1	1.29	1.20	-2.48
1,831.0	12.40	225.60	1,821.8	-92.2	-71.6	116.1	0.75	0.64	1.92
1,955.0	12.10	223.20	1,943.0	-111.0	-90.0	142.4	0.48	-0.24	-1.94
2,080.0	11.80	224.60	2,065.3	-129.7	-107.9	168.3	0.33	-0.24	1.12
2,205.0	11.70	228.50	2,187.6	-147.2	-126.4	193.7	0.64	-0.08	3.12
2,329.0	12.40	221.20	2,308.9	-165.5	-144.6	219.5	1.35	0.56	-5.89
2,454.0	12.50	217.20	2,431.0	-186.4	-161.6	246.4	0.69	0.08	-3.20
2,579.0	12.00	223.60	2,553.1	-206.6	-178.7	272.8	1.16	-0.40	5.12
2,703.0	12.80	227.30	2,674.3	-225.2	-197.7	299.4	0.91	0.65	2.98
2,828.0	11.80	226.20	2,796.4	-243.5	-217.1	326.0	0.82	-0.80	-0.88
2,953.0	11.60	222.70	2,918.8	-261.6	-234.9	351.4	0.59	-0.16	-2.80
3,077.0	11.80	225.80	3,040.2	-279.6	-252.4	376.5	0.53	0.16	2.50
3,202.0	11.10	231.00	3,162.7	-296.0	-270.9	401.2	1.00	-0.56	4.16
3,327.0	12.40	230.30	3,285.1	-312.2	-290.6	426.5	1.05	1.04	-0.56
3,451.0	11.20	224.10	3,406.5	-329.3	-309.2	451.7	1.41	-0.97	-5.00
3,576.0	11.50	223.40	3,529.0	-347.1	-326.2	476.3	0.26	0.24	-0.56
3,701.0	11.90	227.70	3,651.4	-364.8	-344.3	501.7	0.77	0.32	3.44
3,826.0	11.50	226.60	3,773.8	-382.1	-362.9	527.0	0.37	-0.32	-0.88
3,950.0	9.90	224.40	3,895.7	-398.2	-379.4	550.0	1.33	-1.29	-1.77
4,075.0	11.90	227.00	4,018.4	-414.7	-396.3	573.6	1.65	1.60	2.08
4,200.0	11.90	229.00	4,140.7	-431.9	-415.5	599.3	0.33	0.00	1.60
4,324.0	9.40	223.20	4,262.6	-447.7	-432.0	622.2	2.19	-2.02	-4.68
4,449.0	5.70	216.20	4,386.5	-460.1	-442.7	638.5	3.04	-2.96	-5.60
4,574.0	4.10	212.30	4,511.0	-468.9	-448.8	649.1	1.31	-1.28	-3.12
4,698.0	2.20	214.30	4,634.8	-474.6	-452.5	655.7	1.53	-1.53	1.61
4,823.0	0.80	208.60	4,759.8	-477.4	-454.2	659.0	1.12	-1.12	-4.56
4,948.0	0.70	210.30	4,884.8	-478.8	-455.0	660.5	0.08	-0.08	1.36
5,063.1	0.60	229.13	4,999.9	-479.8	-455.9	661.8	0.20	-0.08	16.36
TARGET BHL 689°FNL, 619°FEL									
5,072.0	0.60	230.80	5,008.8	-479.9	-455.9	661.9	0.20	-0.05	18.75
5,197.0	0.90	153.30	5,133.8	-481.2	-456.0	662.9	0.77	0.24	-62.00
5,322.0	0.40	84.50	5,258.8	-482.0	-455.1	662.9	0.67	-0.40	-55.04
5,446.0	1.90	29.20	5,382.7	-480.2	-453.7	660.6	1.37	1.21	-44.60
5,571.0	1.10	34.80	5,507.7	-477.4	-452.0	657.4	0.65	-0.64	4.48
5,696.0	0.70	22.20	5,632.7	-475.7	-451.0	655.5	0.36	-0.32	-10.08
5,820.0	0.20	48.90	5,756.7	-474.8	-450.6	654.6	0.43	-0.40	21.53
5,945.0	0.10	216.00	5,881.7	-474.8	-450.5	654.5	0.24	-0.08	133.68
6,070.0	0.40	171.00	6,006.7	-475.3	-450.5	654.8	0.27	0.24	-36.00
6,194.0	0.40	166.60	6,130.7	-476.1	-450.3	655.3	0.02	0.00	-3.55
6,319.0	0.70	166.40	6,255.7	-477.3	-450.0	656.0	0.24	0.24	-0.16
6,444.0	0.60	132.20	6,380.7	-478.5	-449.3	656.4	0.32	-0.08	-27.36
6,568.0	0.60	231.00	6,504.7	-479.3	-449.4	657.0	0.73	0.00	79.68
6,693.0	0.40	263.60	6,629.6	-479.8	-450.3	658.0	0.27	-0.16	26.08
6,817.4	0.50	292.69	6,754.0	-479.6	-451.2	658.5	0.20	0.08	23.39
TARGET CIRCLE 689°FNL, 619°FEL - LEGAL BOX 400' X 400' 703°FNL, 623°FEL									
6,818.0	0.50	292.80	6,754.6	-479.6	-451.3	658.5	0.20	0.12	18.04
6,943.0	0.70	306.60	6,879.6	-479.0	-452.4	658.8	0.20	0.16	11.04
7,067.0	0.50	329.70	7,003.6	-478.0	-453.2	658.7	0.25	-0.16	18.63
7,192.0	0.80	334.40	7,128.6	-476.8	-453.9	658.3	0.24	0.24	3.76

Company:	Tekton Energy	Local Co-ordinate Reference:	Well Rancho Water Valley 2-8-4
Project:	SEC.4-T5N-R67W	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Rancho Water Valley 8-6-33 Pad Sec.4-T5N-R67W	MD Reference:	WELL @ 0.0ft (Original Well Elev)
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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)
7,279.0	0.50	339.00	7,215.6	-475.9	-454.3	657.9	0.35	-0.34	5.29
7,328.0	0.50	339.00	7,264.6	-475.5	-454.5	657.7	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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