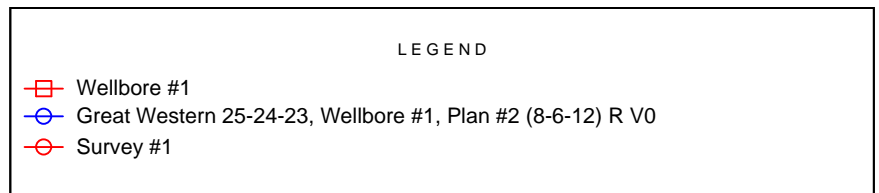
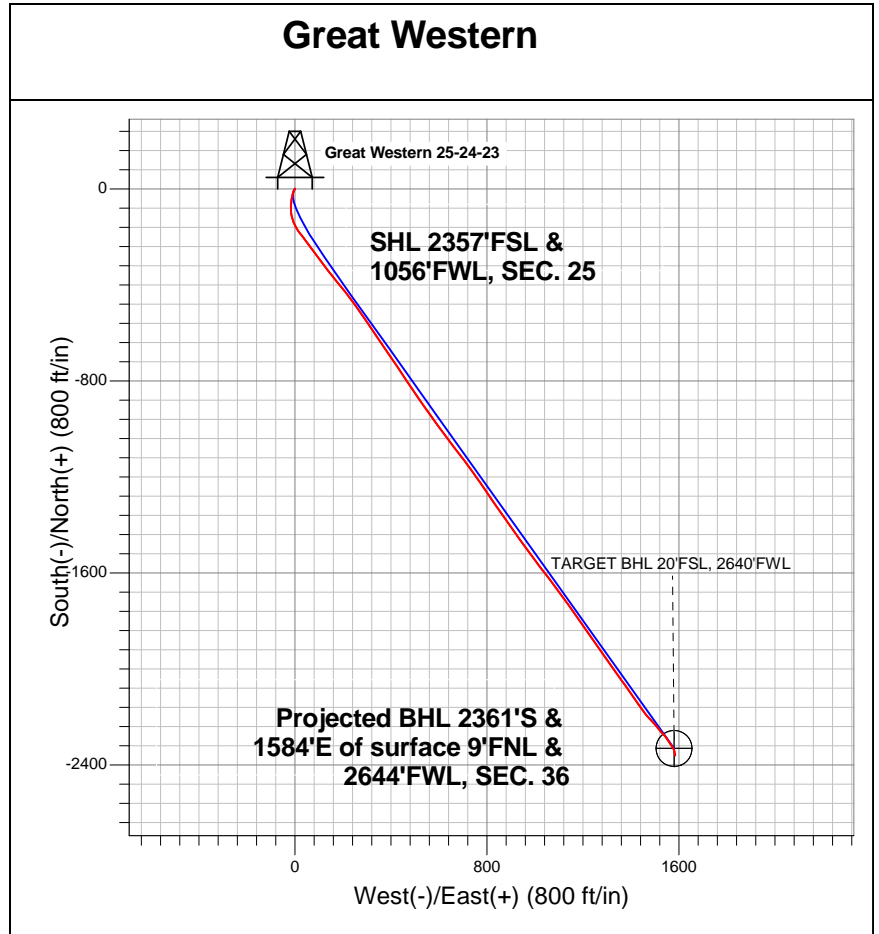
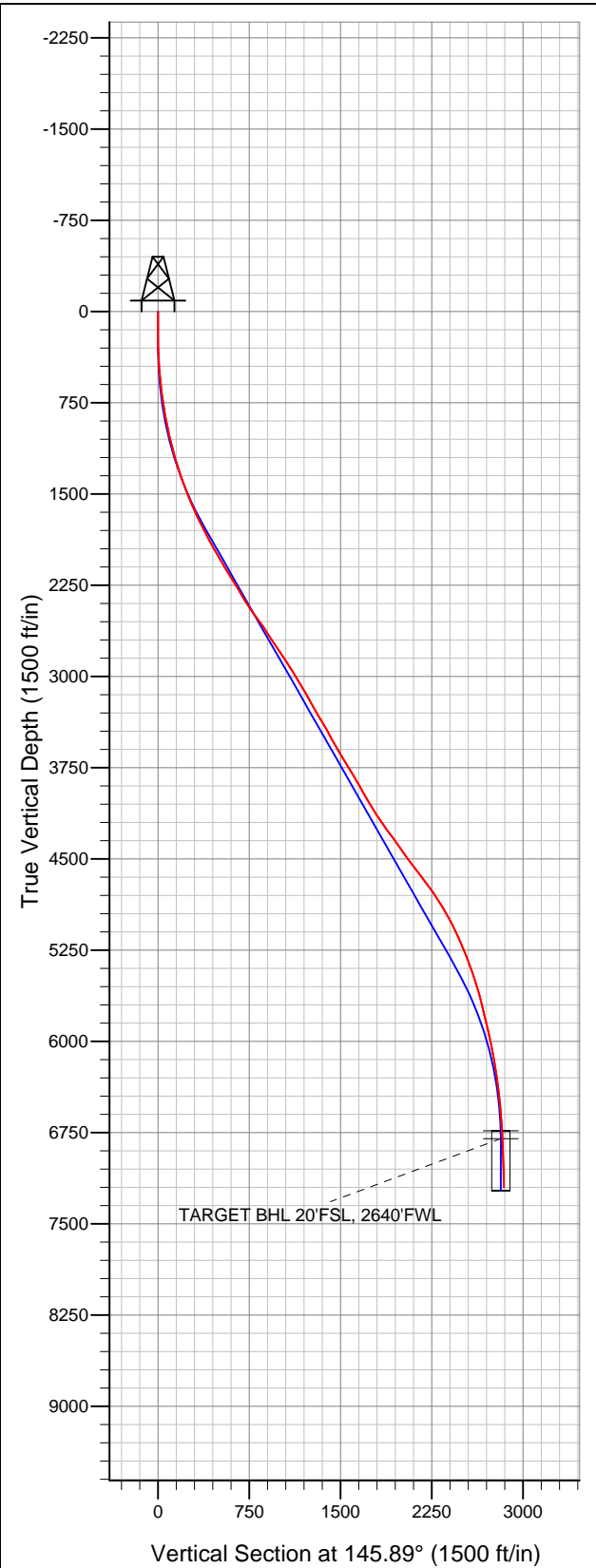


Well Name: Great Western 25-24-23

Surface Location: Great Western 25-12-15 Pad Sec.25-T6N-R67W
 North American Datum 1983 US State Plane 1983Colorado Northern Zone
 Ground Elevation: 4751.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1410050.77	3181536.70	40.457158	-104.847631	
Original Well Elev		WELL @ 4765.0ft (Original Well Elev)				



Final Survey Plot

Projected Final Survey -
 7918'MD & 7200'TVD @ 2843'VS
 1.80 deg Inc 181.40 deg AZ

Project: SEC.25-T6N-R67W
 Site: Great Western 25-12-15 Pad Sec.25-T6N-R67W
 Well: Great Western 25-24-23
 Plan: Wellbore #1



Great Western

SEC.25-T6N-R67W

Great Western 25-12-15 Pad Sec.25-T6N-R67W

Great Western 25-24-23

Wellbore #1

Survey: Survey #1

Standard Survey Report

14 August, 2012

Company:	Great Western	Local Co-ordinate Reference:	Well Great Western 25-24-23
Project:	SEC.25-T6N-R67W	TVD Reference:	WELL @ 4765.0ft (Original Well Elev)
Site:	Great Western 25-12-15 Pad Sec.25-T6N-R67W	MD Reference:	WELL @ 4765.0ft (Original Well Elev)
Well:	Great Western 25-24-23	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.25-T6N-R67W, Weld County, Colorado		
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		Great Western 25-12-15 Pad Sec.25-T6N-R67W			
Site Position:		Northing:		1,410,085.03ft	
From:	Lat/Long	Easting:		Longitude:	
		3,181,487.19ft		-104.847808	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
0.0 ft		"		0.42 °	

Well	Great Western 25-24-23				
Well Position	+N-S	0.0 ft	Northing:	1,410,050.77 ft	Latitude: 40.457158
	+E-W	0.0 ft	Easting:	3,181,536.70 ft	Longitude: -104.847631
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level: 4,751.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/10/2012	8.76	67.04	53,031

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 (°)	
	0.0	0.0	0.0	145.89	

Survey Program		Date	8/13/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
58.0	7,918.0	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
58.0	0.80	351.80	58.0	0.4	-0.1	-0.4	1.38	1.38	0.00
151.0	0.40	228.00	151.0	0.8	-0.4	-0.9	1.16	-0.43	-133.12
245.0	2.00	207.60	245.0	-0.8	-1.4	-0.1	1.74	1.70	-21.70
337.0	4.00	209.90	336.8	-5.1	-3.7	2.1	2.18	2.17	2.50
428.0	6.30	199.40	427.5	-12.5	-7.0	6.4	2.72	2.53	-11.54
519.0	7.80	193.60	517.8	-23.2	-10.1	13.6	1.82	1.65	-6.37
610.0	9.40	191.80	607.8	-36.5	-13.1	22.9	1.78	1.76	-1.98
691.0	10.70	185.80	687.5	-50.5	-15.2	33.3	2.06	1.60	-7.41
790.0	10.90	185.30	784.8	-68.9	-17.0	47.5	0.22	0.20	-0.51
886.0	12.00	177.90	878.9	-87.9	-17.4	63.0	1.91	1.15	-7.71
981.0	13.20	168.10	971.6	-108.4	-14.8	81.4	2.58	1.26	-10.32
1,076.0	14.00	161.70	1,063.9	-129.9	-9.0	102.5	1.79	0.84	-6.74

Company:	Great Western	Local Co-ordinate Reference:	Well Great Western 25-24-23
Project:	SEC.25-T6N-R67W	TVD Reference:	WELL @ 4765.0ft (Original Well Elev)
Site:	Great Western 25-12-15 Pad Sec.25-T6N-R67W	MD Reference:	WELL @ 4765.0ft (Original Well Elev)
Well:	Great Western 25-24-23	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)	
1,171.0	15.80	154.00	1,155.7	-152.5	0.3	126.4	2.81	1.89	-8.11	
1,266.0	17.40	144.20	1,246.8	-175.6	14.3	153.4	3.39	1.68	-10.32	
1,361.0	17.90	142.90	1,337.3	-198.8	31.4	182.2	0.67	0.53	-1.37	
1,455.0	20.30	142.20	1,426.1	-223.2	50.1	212.9	2.56	2.55	-0.74	
1,550.0	21.50	144.00	1,514.9	-250.3	70.4	246.7	1.43	1.26	1.89	
1,645.0	24.40	143.30	1,602.3	-280.1	92.4	283.8	3.07	3.05	-0.74	
1,740.0	25.90	142.80	1,688.3	-312.4	116.7	324.1	1.59	1.58	-0.53	
1,835.0	26.80	142.80	1,773.5	-346.0	142.2	366.2	0.95	0.95	0.00	
1,930.0	27.30	140.50	1,858.1	-379.9	169.0	409.3	1.22	0.53	-2.42	
2,022.0	29.70	140.60	1,938.9	-413.8	196.9	453.0	2.61	2.61	0.11	
2,117.0	30.50	143.10	2,021.1	-451.2	226.3	500.5	1.57	0.84	2.63	
2,212.0	31.60	144.20	2,102.5	-490.7	255.3	549.4	1.30	1.16	1.16	
2,307.0	30.80	146.30	2,183.8	-531.1	283.4	598.6	1.42	-0.84	2.21	
2,402.0	31.30	145.90	2,265.2	-571.8	310.7	647.6	0.57	0.53	-0.42	
2,497.0	30.50	144.90	2,346.7	-611.9	338.4	696.4	1.00	-0.84	-1.05	
2,592.0	33.50	146.40	2,427.2	-653.5	366.8	746.8	3.27	3.16	1.58	
2,687.0	36.40	144.90	2,505.1	-698.4	397.5	801.2	3.18	3.05	-1.58	
2,782.0	35.60	146.30	2,581.9	-744.5	429.0	857.0	1.21	-0.84	1.47	
2,876.0	33.10	147.30	2,659.5	-788.9	458.1	910.0	2.73	-2.66	1.06	
2,971.0	33.20	146.10	2,739.1	-832.3	486.6	962.0	0.70	0.11	-1.26	
3,066.0	33.90	144.50	2,818.3	-875.4	516.5	1,014.5	1.19	0.74	-1.68	
3,161.0	33.30	144.90	2,897.4	-918.3	546.9	1,067.0	0.67	-0.63	0.42	
3,256.0	31.30	145.20	2,977.7	-959.9	576.0	1,117.8	2.11	-2.11	0.32	
3,346.0	31.10	143.10	3,054.7	-997.7	603.3	1,164.4	1.23	-0.22	-2.33	
3,441.0	29.60	142.20	3,136.6	-1,035.9	632.4	1,212.3	1.65	-1.58	-0.95	
3,535.0	29.10	143.30	3,218.6	-1,072.6	660.3	1,258.3	0.78	-0.53	1.17	
3,630.0	30.00	142.20	3,301.2	-1,109.8	688.6	1,305.1	1.11	0.95	-1.16	
3,725.0	31.70	144.30	3,382.8	-1,148.9	717.8	1,353.7	2.12	1.79	2.21	
3,819.0	27.60	144.20	3,464.5	-1,186.6	744.9	1,400.2	4.36	-4.36	-0.11	
3,911.0	30.00	145.20	3,545.1	-1,222.8	770.5	1,444.5	2.66	2.61	1.09	
4,003.0	30.60	145.00	3,624.5	-1,260.9	797.1	1,490.9	0.66	0.65	-0.22	
4,094.0	31.40	145.40	3,702.5	-1,299.4	823.8	1,537.8	0.91	0.88	0.44	
4,186.0	31.10	146.10	3,781.2	-1,338.8	850.7	1,585.5	0.51	-0.33	0.76	
4,278.0	30.50	146.10	3,860.2	-1,377.9	877.0	1,632.6	0.65	-0.65	0.00	
4,374.0	28.90	143.30	3,943.6	-1,416.7	904.4	1,680.2	2.21	-1.67	-2.92	
4,468.0	30.60	143.10	4,025.2	-1,454.1	932.3	1,726.8	1.81	1.81	-0.21	
4,562.0	32.40	145.20	4,105.3	-1,493.9	961.1	1,775.8	2.24	1.91	2.23	
4,657.0	33.90	143.60	4,184.9	-1,536.1	991.3	1,827.8	1.83	1.58	-1.68	
4,752.0	36.90	141.90	4,262.3	-1,579.9	1,024.7	1,882.7	3.32	3.16	-1.79	
4,847.0	35.50	143.30	4,339.0	-1,624.5	1,058.7	1,938.7	1.71	-1.47	1.47	
4,942.0	35.30	143.80	4,416.4	-1,668.7	1,091.4	1,993.7	0.37	-0.21	0.53	
5,037.0	36.60	142.80	4,493.3	-1,713.4	1,124.8	2,049.4	1.50	1.37	-1.05	
5,131.0	36.60	144.30	4,568.8	-1,758.5	1,158.1	2,105.4	0.95	0.00	1.60	
5,226.0	37.40	145.00	4,644.6	-1,805.1	1,191.2	2,162.6	0.95	0.84	0.74	
5,321.0	36.70	145.60	4,720.4	-1,852.2	1,223.7	2,219.8	0.83	-0.74	0.63	
5,416.0	33.90	146.10	4,798.0	-1,897.6	1,254.6	2,274.7	2.96	-2.95	0.53	
5,511.0	31.50	144.90	4,877.9	-1,939.9	1,283.6	2,326.0	2.62	-2.53	-1.26	
5,606.0	29.00	145.00	4,960.0	-1,979.1	1,311.1	2,373.9	2.63	-2.63	0.11	
5,701.0	27.40	143.50	5,043.7	-2,015.5	1,337.3	2,418.7	1.84	-1.68	-1.58	
5,796.0	25.10	143.60	5,128.9	-2,049.3	1,362.3	2,460.7	2.42	-2.42	0.11	
5,891.0	22.60	145.60	5,215.8	-2,080.6	1,384.5	2,499.1	2.77	-2.63	2.11	
5,985.0	21.90	145.40	5,302.8	-2,110.0	1,404.7	2,534.7	0.75	-0.74	-0.21	
6,075.0	19.60	145.00	5,386.9	-2,136.1	1,422.9	2,566.6	2.56	-2.56	-0.44	
6,170.0	18.70	144.90	5,476.7	-2,161.6	1,440.8	2,597.7	0.95	-0.95	-0.11	

Company:	Great Western	Local Co-ordinate Reference:	Well Great Western 25-24-23
Project:	SEC.25-T6N-R67W	TVD Reference:	WELL @ 4765.0ft (Original Well Elev)
Site:	Great Western 25-12-15 Pad Sec.25-T6N-R67W	MD Reference:	WELL @ 4765.0ft (Original Well Elev)
Well:	Great Western 25-24-23	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)
6,265.0	16.50	142.40	5,567.2	-2,184.8	1,457.8	2,626.4	2.45	-2.32	-2.63
6,360.0	14.00	135.20	5,658.9	-2,203.6	1,474.1	2,651.2	3.30	-2.63	-7.58
6,454.0	13.50	137.10	5,750.2	-2,219.8	1,489.6	2,673.2	0.72	-0.53	2.02
6,549.0	12.70	141.70	5,842.7	-2,236.1	1,503.6	2,694.6	1.38	-0.84	4.84
6,644.0	13.50	141.50	5,935.2	-2,252.9	1,517.0	2,716.1	0.84	0.84	-0.21
6,739.0	12.50	136.40	6,027.8	-2,269.1	1,531.0	2,737.3	1.60	-1.05	-5.37
6,834.0	10.00	138.70	6,121.0	-2,282.7	1,543.5	2,755.6	2.67	-2.63	2.42
6,928.0	9.80	148.20	6,213.6	-2,295.6	1,553.1	2,771.7	1.75	-0.21	10.11
7,023.0	7.90	147.70	6,307.4	-2,308.0	1,560.9	2,786.3	2.00	-2.00	-0.53
7,118.0	6.60	145.00	6,401.7	-2,318.0	1,567.5	2,798.3	1.41	-1.37	-2.84
7,213.0	5.50	147.70	6,496.2	-2,326.3	1,573.1	2,808.3	1.20	-1.16	2.84
7,308.0	4.90	153.30	6,590.8	-2,333.8	1,577.3	2,816.8	0.83	-0.63	5.89
7,402.0	3.30	164.40	6,684.5	-2,340.0	1,579.8	2,823.4	1.89	-1.70	11.81
7,451.9	3.24	164.57	6,734.4	-2,342.8	1,580.6	2,826.1	0.12	-0.11	0.34
TARGET CIRCLE 20'FSL & 2640'FWL									
7,490.0	3.20	164.70	6,772.4	-2,344.8	1,581.2	2,828.1	0.12	-0.11	0.35
7,516.9	3.00	165.30	6,799.3	-2,346.2	1,581.6	2,829.5	0.76	-0.75	2.22
TARGET BHL 20'FSL, 2640'FWL									
7,584.0	2.50	167.20	6,866.3	-2,349.4	1,582.3	2,832.5	0.76	-0.74	2.84
7,678.0	2.00	168.10	6,960.2	-2,353.0	1,583.1	2,835.9	0.53	-0.53	0.96
7,772.0	1.90	175.50	7,054.1	-2,356.1	1,583.6	2,838.8	0.29	-0.11	7.87
7,868.0	1.80	181.40	7,150.1	-2,359.2	1,583.7	2,841.4	0.22	-0.10	6.15
7,918.0	1.80	181.40	7,200.1	-2,360.8	1,583.6	2,842.7	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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