

Archer

PVA & Survey Report

Black Hills Production Co.

Garfield Co., CO.

Sec.9-T8S-R98W

HDU 9-11BH

Wellbore #1

Survey: Survey #2

Standard Survey Report

07 April, 2015

Archer

Company:	Black Hills Production Co.	Local Co-ordinate Reference:	Well HDU 9-11BH
Project:	Garfield Co., CO.	TVD Reference:	WELL @ 5536.00usft (Original Well Elev)
Site:	Sec.9-T8S-R98W	MD Reference:	WELL @ 5536.00usft (Original Well Elev)
Well:	HDU 9-11BH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Project	Garfield Co., CO.		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Sec.9-T8S-R98W			
Site Position:		Northing:	1,575,537.582 usft	Latitude:	39° 22' 46.452 N
From:	Lat/Long	Easting:	2,202,119.135 usft	Longitude:	108° 19' 23.304 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.78 °

Well	HDU 9-11BH					
Well Position	+N/-S	0.00 usft	Northing:	1,575,930.285 usft	Latitude:	39° 22' 48.900 N
	+E/-W	0.00 usft	Easting:	2,197,470.780 usft	Longitude:	108° 20' 22.632 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,521.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/02/17	10.02	65.48	51,776

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	145.18	

Survey Program	Date	2015/04/07			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
1,151.00	7,493.00	Survey #1 (Wellbore #1)	MWD	MWD - Standard	
7,524.00	17,343.00	Survey #2 (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,637.00	1.10	220.40	6,634.64	-81.45	-26.61	51.67	0.00	0.00	0.00	
6,672.00	3.10	250.80	6,669.62	-82.02	-27.72	51.50	6.35	5.71	86.86	
6,703.00	7.60	250.10	6,700.47	-82.99	-30.44	50.75	14.52	14.52	-2.26	
6,735.00	12.90	252.10	6,731.95	-84.81	-35.83	49.16	16.60	16.56	6.25	
6,766.00	17.60	248.70	6,761.85	-87.58	-43.50	47.06	15.43	15.16	-10.97	
6,798.00	19.30	236.90	6,792.22	-92.23	-52.44	45.77	12.79	5.31	-36.87	
6,830.00	20.40	226.80	6,822.32	-98.93	-60.94	46.42	11.24	3.44	-31.56	
6,861.00	21.60	215.50	6,851.28	-107.28	-68.19	49.13	13.60	3.87	-36.45	
6,893.00	23.60	209.40	6,880.82	-117.66	-74.76	53.90	9.62	6.25	-19.06	
6,924.00	26.30	203.70	6,908.93	-129.36	-80.57	60.19	11.65	8.71	-18.39	
6,956.00	28.50	195.80	6,937.35	-143.20	-85.50	68.74	13.27	6.87	-24.69	
6,988.00	30.20	187.30	6,965.25	-158.54	-88.60	79.56	14.05	5.31	-26.56	

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Well:	HDU 9-11BH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
7,019.00	31.40	179.00	6,991.89	-174.35	-89.45	92.06	14.23	3.87	-26.77	
7,051.00	33.00	171.80	7,018.98	-191.32	-88.06	106.78	12.98	5.00	-22.50	
7,082.00	34.50	166.10	7,044.76	-208.20	-84.75	122.53	11.30	4.84	-18.39	
7,114.00	36.80	161.60	7,070.77	-226.10	-79.55	140.20	10.90	7.19	-14.06	
7,146.00	38.70	158.60	7,096.07	-244.51	-72.87	159.13	8.26	5.94	-9.37	
7,177.00	41.00	156.70	7,119.87	-262.88	-65.31	178.52	8.39	7.42	-6.13	
7,209.00	42.50	155.20	7,143.74	-282.33	-56.62	199.45	5.63	4.69	-4.69	
7,240.00	43.70	152.10	7,166.38	-301.31	-47.22	220.40	7.85	3.87	-10.00	
7,272.00	43.30	148.50	7,189.59	-320.44	-36.31	242.33	7.84	-1.25	-11.25	
7,304.00	44.00	146.30	7,212.75	-339.04	-24.41	264.40	5.23	2.19	-6.87	
7,335.00	45.60	144.60	7,234.75	-357.03	-12.02	286.24	6.45	5.16	-5.48	
7,366.00	48.00	143.40	7,255.97	-375.30	1.27	308.83	8.24	7.74	-3.87	
7,398.00	49.60	143.60	7,277.04	-394.66	15.59	332.90	5.02	5.00	0.62	
7,429.00	52.30	144.80	7,296.57	-414.18	29.66	356.96	9.21	8.71	3.87	
7,461.00	55.00	145.70	7,315.54	-435.36	44.35	382.73	8.74	8.44	2.81	
7,492.00	57.80	145.80	7,332.69	-456.70	58.88	408.55	9.04	9.03	0.32	
7,524.00	60.60	145.30	7,349.07	-479.36	74.43	436.03	8.85	8.75	-1.56	
7,555.00	63.00	144.50	7,363.72	-501.71	90.14	463.35	8.07	7.74	-2.58	
HDU 9-11BH LP										
7,558.37	63.18	144.54	7,365.25	-504.16	91.89	466.36	5.43	5.31	1.27	
7,587.00	64.70	144.90	7,377.83	-525.16	106.74	492.07	5.43	5.31	1.25	
7,619.00	65.20	145.00	7,391.37	-548.89	123.39	521.06	1.59	1.56	0.31	
7,650.00	66.20	144.90	7,404.13	-572.02	139.61	549.32	3.24	3.23	-0.32	
7,682.00	68.00	144.80	7,416.58	-596.12	156.58	578.79	5.63	5.62	-0.31	
7,713.00	69.30	144.90	7,427.87	-619.73	173.20	607.66	4.20	4.19	0.32	
7,745.00	70.90	144.30	7,438.76	-644.25	190.63	637.75	5.30	5.00	-1.87	
7,776.00	73.20	144.10	7,448.31	-668.17	207.88	667.24	7.44	7.42	-0.65	
7,807.00	75.60	144.30	7,456.65	-692.38	225.35	697.09	7.77	7.74	0.65	
7,839.00	77.90	144.40	7,463.98	-717.69	243.50	728.23	7.19	7.19	0.31	
7,871.00	78.50	144.90	7,470.53	-743.24	261.62	759.55	2.42	1.87	1.56	
7,903.00	80.70	145.20	7,476.30	-769.04	279.65	791.02	6.94	6.87	0.94	
7,934.00	82.90	146.30	7,480.72	-794.40	296.92	821.70	7.92	7.10	3.55	
7,966.00	83.60	146.60	7,484.49	-820.88	314.48	853.47	2.38	2.19	0.94	
7,997.00	84.80	146.50	7,487.62	-846.62	331.48	884.31	3.88	3.87	-0.32	
8,029.00	86.00	146.20	7,490.18	-873.17	349.16	916.20	3.86	3.75	-0.94	
8,061.00	87.00	145.90	7,492.14	-899.66	366.99	948.13	3.26	3.12	-0.94	
8,092.00	88.50	145.60	7,493.36	-925.27	384.43	979.10	4.93	4.84	-0.97	
8,123.00	89.90	145.70	7,493.79	-950.86	401.92	1,010.10	4.53	4.52	0.32	
8,155.00	90.50	145.50	7,493.68	-977.26	419.99	1,042.10	1.98	1.87	-0.62	
8,249.00	90.80	144.40	7,492.61	-1,054.21	473.97	1,136.09	1.21	0.32	-1.17	
8,344.00	90.20	143.70	7,491.78	-1,131.11	529.74	1,231.07	0.97	-0.63	-0.74	
8,438.00	91.30	145.40	7,490.55	-1,207.67	584.26	1,325.05	2.15	1.17	1.81	
8,532.00	91.90	144.80	7,487.93	-1,284.74	638.02	1,419.01	0.90	0.64	-0.64	
8,627.00	91.70	144.20	7,484.94	-1,362.04	693.15	1,513.96	0.67	-0.21	-0.63	
8,721.00	90.60	144.10	7,483.06	-1,438.21	748.20	1,607.92	1.18	-1.17	-0.11	
8,816.00	90.30	143.80	7,482.31	-1,515.02	804.10	1,702.90	0.45	-0.32	-0.32	
8,910.00	90.00	143.40	7,482.06	-1,590.68	859.88	1,796.86	0.53	-0.32	-0.43	
9,005.00	89.40	143.70	7,482.56	-1,667.09	916.32	1,891.82	0.71	-0.63	0.32	
9,099.00	90.20	143.80	7,482.89	-1,742.90	971.90	1,985.79	0.86	0.85	0.11	
9,194.00	91.40	145.30	7,481.56	-1,820.28	1,027.00	2,080.77	2.02	1.26	1.58	
9,288.00	91.00	146.80	7,479.59	-1,898.23	1,079.48	2,174.74	1.65	-0.43	1.60	
9,382.00	91.90	147.50	7,477.21	-1,977.17	1,130.45	2,268.65	1.21	0.96	0.74	
9,477.00	90.70	148.40	7,475.06	-2,057.67	1,180.85	2,363.51	1.58	-1.26	0.95	
9,572.00	91.50	148.00	7,473.24	-2,138.40	1,230.90	2,458.36	0.94	0.84	-0.42	

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Design:	Wellbore #1	Database:	EDMDBBW

Survey										
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9,667.00	90.50	148.40	7,471.58	-2,219.12	1,280.95	2,553.21	1.13	-1.05	0.42	
9,761.00	91.30	148.40	7,470.10	-2,299.17	1,330.20	2,647.05	0.85	0.85	0.00	
9,855.00	90.50	148.10	7,468.62	-2,379.10	1,379.66	2,740.90	0.91	-0.85	-0.32	
9,949.00	90.90	148.70	7,467.48	-2,459.15	1,428.91	2,834.75	0.77	0.43	0.64	
10,039.00	89.20	149.70	7,467.40	-2,536.45	1,474.99	2,924.52	2.19	-1.89	1.11	
10,131.00	90.30	149.20	7,467.80	-2,615.68	1,521.75	3,016.26	1.31	1.20	-0.54	
10,222.00	88.90	149.50	7,468.43	-2,693.96	1,568.14	3,107.02	1.57	-1.54	0.33	
10,313.00	89.10	148.70	7,470.02	-2,772.04	1,614.87	3,197.79	0.91	0.22	-0.88	
10,403.00	89.30	148.40	7,471.28	-2,848.81	1,661.82	3,287.63	0.40	0.22	-0.33	
10,494.00	89.20	147.90	7,472.47	-2,926.10	1,709.83	3,378.50	0.56	-0.11	-0.55	
10,585.00	90.10	148.30	7,473.03	-3,003.35	1,757.92	3,469.38	1.08	0.99	0.44	
10,676.00	90.90	148.60	7,472.23	-3,080.90	1,805.53	3,560.22	0.94	0.88	0.33	
10,767.00	89.00	149.10	7,472.31	-3,158.77	1,852.60	3,651.03	2.16	-2.09	0.55	
10,858.00	90.20	149.20	7,472.95	-3,236.89	1,899.27	3,741.81	1.32	1.32	0.11	
10,950.00	91.60	149.30	7,471.50	-3,315.95	1,946.30	3,833.56	1.53	1.52	0.11	
11,039.00	92.40	149.20	7,468.40	-3,392.39	1,991.77	3,922.28	0.91	0.90	-0.11	
11,130.00	91.50	149.50	7,465.30	-3,470.63	2,038.14	4,012.99	1.04	-0.99	0.33	
11,221.00	89.60	149.40	7,464.43	-3,548.99	2,084.39	4,103.73	2.09	-2.09	-0.11	
11,312.00	90.10	148.90	7,464.66	-3,627.11	2,131.05	4,194.51	0.78	0.55	-0.55	
11,403.00	90.00	148.40	7,464.58	-3,704.83	2,178.40	4,285.34	0.56	-0.11	-0.55	
11,495.00	89.80	148.20	7,464.75	-3,783.10	2,226.74	4,377.21	0.31	-0.22	-0.22	
11,585.00	89.80	148.40	7,465.06	-3,859.67	2,274.03	4,467.07	0.22	0.00	0.22	
11,676.00	89.60	148.00	7,465.54	-3,937.01	2,321.98	4,557.94	0.49	-0.22	-0.44	
11,768.00	90.00	147.70	7,465.86	-4,014.91	2,370.94	4,649.84	0.54	0.43	-0.33	
11,862.00	90.60	148.30	7,465.36	-4,094.62	2,420.75	4,743.73	0.90	0.64	0.64	
11,956.00	91.10	147.70	7,463.97	-4,174.33	2,470.56	4,837.60	0.83	0.53	-0.64	
12,051.00	91.90	147.60	7,461.48	-4,254.55	2,521.37	4,932.48	0.85	0.84	-0.11	
12,145.00	91.20	148.80	7,458.94	-4,334.41	2,570.89	5,026.31	1.48	-0.74	1.28	
12,239.00	90.90	149.90	7,457.22	-4,415.27	2,618.80	5,120.05	1.21	-0.32	1.17	
12,333.00	90.80	151.00	7,455.82	-4,497.03	2,665.15	5,213.64	1.17	-0.11	1.17	
12,427.00	89.50	151.20	7,455.58	-4,579.32	2,710.58	5,307.13	1.40	-1.38	0.21	
12,522.00	90.20	150.90	7,455.83	-4,662.45	2,756.56	5,401.64	0.80	0.74	-0.32	
12,616.00	90.90	150.80	7,454.92	-4,744.54	2,802.35	5,495.17	0.75	0.74	-0.11	
12,711.00	92.20	151.00	7,452.35	-4,827.52	2,848.53	5,589.66	1.38	1.37	0.21	
12,806.00	91.20	151.50	7,449.54	-4,910.77	2,894.21	5,684.09	1.18	-1.05	0.53	
12,900.00	90.20	151.80	7,448.39	-4,993.49	2,938.84	5,777.48	1.11	-1.06	0.32	
12,994.00	90.60	151.30	7,447.73	-5,076.13	2,983.62	5,870.90	0.68	0.43	-0.53	
13,089.00	92.30	151.60	7,445.33	-5,159.55	3,029.00	5,965.29	1.82	1.79	0.32	
13,183.00	91.10	152.00	7,442.54	-5,242.35	3,073.40	6,058.62	1.35	-1.28	0.43	
13,277.00	88.90	151.80	7,442.54	-5,325.27	3,117.68	6,151.97	2.35	-2.34	-0.21	
13,372.00	89.50	151.70	7,443.87	-5,408.94	3,162.64	6,246.34	0.64	0.63	-0.11	
13,394.00	89.60	151.70	7,444.04	-5,428.31	3,173.07	6,268.20	0.45	0.45	0.00	
13,489.00	90.30	151.30	7,444.12	-5,511.80	3,218.40	6,362.62	0.85	0.74	-0.42	
13,584.00	91.20	150.90	7,442.88	-5,594.96	3,264.30	6,457.10	1.04	0.95	-0.42	
13,678.00	90.10	151.30	7,441.81	-5,677.25	3,309.73	6,550.59	1.25	-1.17	0.43	
13,772.00	90.90	150.70	7,440.99	-5,759.46	3,355.30	6,644.10	1.06	0.85	-0.64	
13,867.00	89.20	150.40	7,440.91	-5,842.18	3,402.00	6,738.68	1.82	-1.79	-0.32	
13,962.00	89.50	150.20	7,441.99	-5,924.69	3,449.07	6,833.30	0.38	0.32	-0.21	
14,056.00	90.20	150.30	7,442.23	-6,006.30	3,495.71	6,926.93	0.75	0.74	0.11	
14,150.00	90.30	149.60	7,441.82	-6,087.67	3,542.78	7,020.60	0.75	0.11	-0.74	
14,245.00	90.80	149.40	7,440.91	-6,169.52	3,591.00	7,115.33	0.57	0.53	-0.21	
14,340.00	92.00	149.80	7,438.59	-6,251.43	3,639.06	7,210.01	1.33	1.26	0.42	
14,435.00	91.00	149.60	7,436.10	-6,333.43	3,686.97	7,304.69	1.07	-1.05	-0.21	
14,529.00	91.60	148.90	7,433.97	-6,414.19	3,735.02	7,398.42	0.98	0.64	-0.74	

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Well:	HDU 9-11BH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

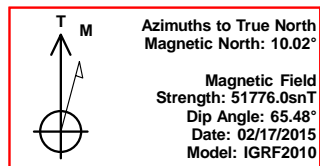
Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,624.00	91.60	149.00	7,431.32	-6,495.54	3,784.00	7,493.18	0.11	0.00	0.11	
14,718.00	90.10	149.50	7,429.92	-6,576.32	3,832.05	7,586.93	1.68	-1.60	0.53	
14,813.00	91.20	149.60	7,428.84	-6,658.21	3,880.19	7,681.65	1.16	1.16	0.11	
14,907.00	91.00	150.90	7,427.04	-6,739.80	3,926.83	7,775.26	1.40	-0.21	1.38	
15,001.00	91.00	151.10	7,425.40	-6,822.00	3,972.39	7,868.76	0.21	0.00	0.21	
15,095.00	93.10	151.40	7,422.04	-6,904.36	4,017.58	7,962.17	2.26	2.23	0.32	
15,189.00	93.20	150.80	7,416.87	-6,986.53	4,062.93	8,055.53	0.65	0.11	-0.64	
15,283.00	92.20	151.30	7,412.44	-7,068.69	4,108.38	8,148.93	1.19	-1.06	0.53	
15,378.00	91.00	151.40	7,409.79	-7,152.02	4,153.91	8,243.34	1.27	-1.26	0.11	
15,474.00	90.70	150.90	7,408.37	-7,236.10	4,200.23	8,338.81	0.61	-0.31	-0.52	
15,567.00	90.80	149.90	7,407.15	-7,316.95	4,246.16	8,431.41	1.08	0.11	-1.08	
15,661.00	90.00	148.40	7,406.49	-7,397.65	4,294.36	8,525.18	1.81	-0.85	-1.60	
15,755.00	90.00	147.40	7,406.49	-7,477.28	4,344.31	8,619.07	1.06	0.00	-1.06	
15,850.00	89.80	147.80	7,406.66	-7,557.49	4,395.22	8,713.99	0.47	-0.21	0.42	
15,944.00	89.50	147.40	7,407.23	-7,636.85	4,445.58	8,807.90	0.53	-0.32	-0.43	
16,039.00	90.00	147.20	7,407.65	-7,716.80	4,496.90	8,902.84	0.57	0.53	-0.21	
16,134.00	90.30	146.30	7,407.40	-7,796.24	4,548.99	8,997.80	1.00	0.32	-0.95	
16,229.00	91.00	146.70	7,406.32	-7,875.45	4,601.42	9,092.77	0.85	0.74	0.42	
16,323.00	91.50	148.00	7,404.27	-7,954.58	4,652.12	9,186.67	1.48	0.53	1.38	
16,417.00	91.00	149.60	7,402.22	-8,034.96	4,700.80	9,280.46	1.78	-0.53	1.70	
16,512.00	90.00	149.60	7,401.39	-8,116.90	4,748.87	9,375.17	1.05	-1.05	0.00	
16,606.00	90.10	149.10	7,401.31	-8,197.76	4,796.79	9,468.93	0.54	0.11	-0.53	
16,700.00	90.50	149.70	7,400.82	-8,278.67	4,844.64	9,562.67	0.77	0.43	0.64	
16,794.00	89.40	149.50	7,400.90	-8,359.75	4,892.21	9,656.39	1.19	-1.17	-0.21	
16,888.00	89.40	149.30	7,401.88	-8,440.65	4,940.06	9,750.13	0.21	0.00	-0.21	
16,983.00	89.80	149.00	7,402.55	-8,522.21	4,988.77	9,844.90	0.53	0.42	-0.32	
17,078.00	90.50	148.80	7,402.30	-8,603.55	5,037.84	9,939.70	0.77	0.74	-0.21	
17,172.00	89.10	149.50	7,402.63	-8,684.25	5,086.04	10,033.47	1.67	-1.49	0.74	
Last Archer Survey										
17,267.00	89.30	149.30	7,403.95	-8,766.01	5,134.40	10,128.20	0.30	0.21	-0.21	
PTB - HDU 9-11BH tgt										
17,343.00	89.30	149.30	7,404.88	-8,831.36	5,173.19	10,204.00	0.00	0.00	0.00	

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
17,267.00	7,403.95	-8,766.01	5,134.40	Last Archer Survey	
17,343.00	7,404.88	-8,831.36	5,173.19	PTB	

Checked By: _____ Approved By: _____ Date: _____

Company Name: Black Hills Production Co.

Black Hills Production Co.
Project: Garfield Co., CO.
Site: Sec.9-T8S-R98W
Well: HDU 9-11BH
Wellbore: Wellbore #1
Design: Design #5
Lat: 39° 22' 48.900 N
Long: 108° 20' 22.632 W
Pad GL: 5521.0
KB: WELL @ 5536.0usft (Original Well Elev)



Archer

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
6637.0	1.10	220.40	6634.6	-81.5	-26.6	0.00	0.00	57.2	Start 127.01 hold at 6637.00 MD
6764.0	1.10	220.40	6761.6	-83.3	-28.2	0.00	0.00	58.1	Start DLS 8.00 TFO -92.16
7164.3	32.00	130.00	7141.4	-156.3	52.7	8.00	-92.16	161.7	Start DLS 8.00 TFO 23.19
7917.7	90.14	150.00	7493.0	-658.0	429.3	8.00	23.19	784.5	Start 9408.70 hold at 7917.71 MD
17326.4	90.14	150.00	7470.0	-8806.2	5133.7	0.00	0.00	10193.2	TD at 17326.41

+N/-S	+E/-W	Northing	Ground Level: Easting	5521.0 Latitude	Longitude	Slot
0.0	0.0	1575930.29	2197470.78	39° 22' 48.900 N	108° 20' 22.632 W	

WELLBORE TARGET DETAILS (LAT/LONG)

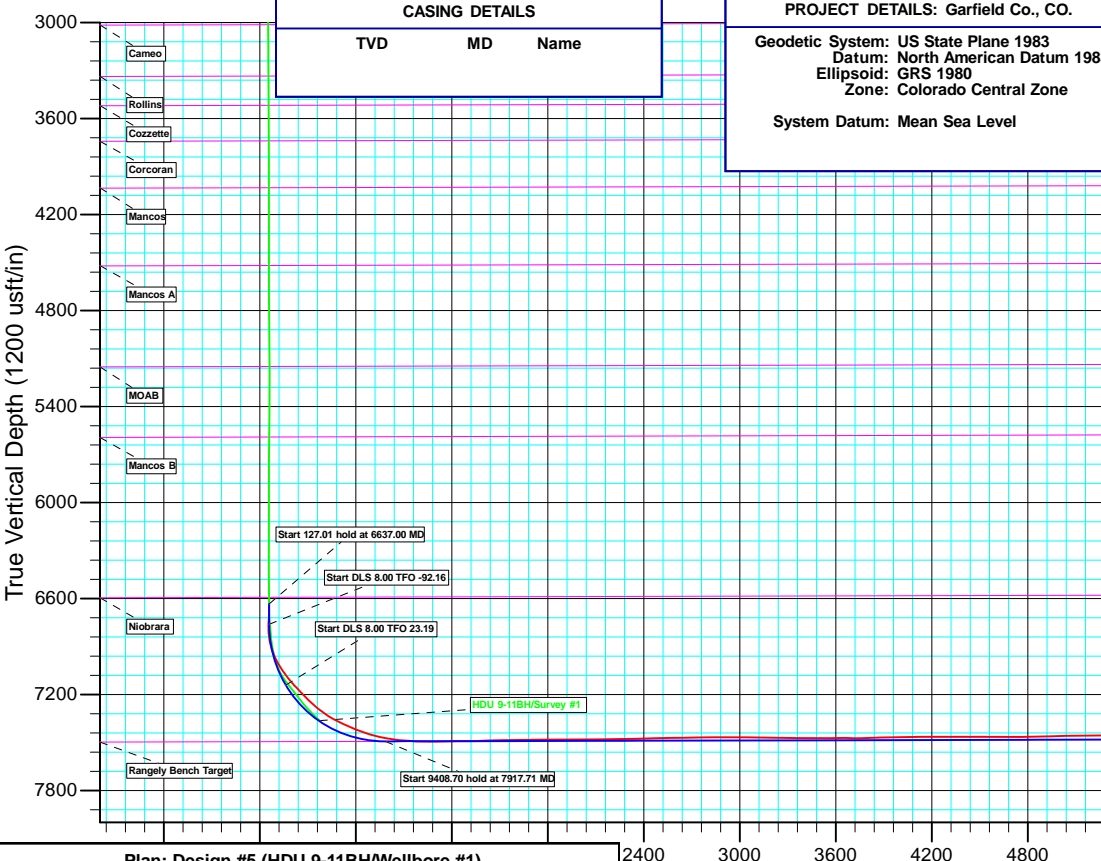
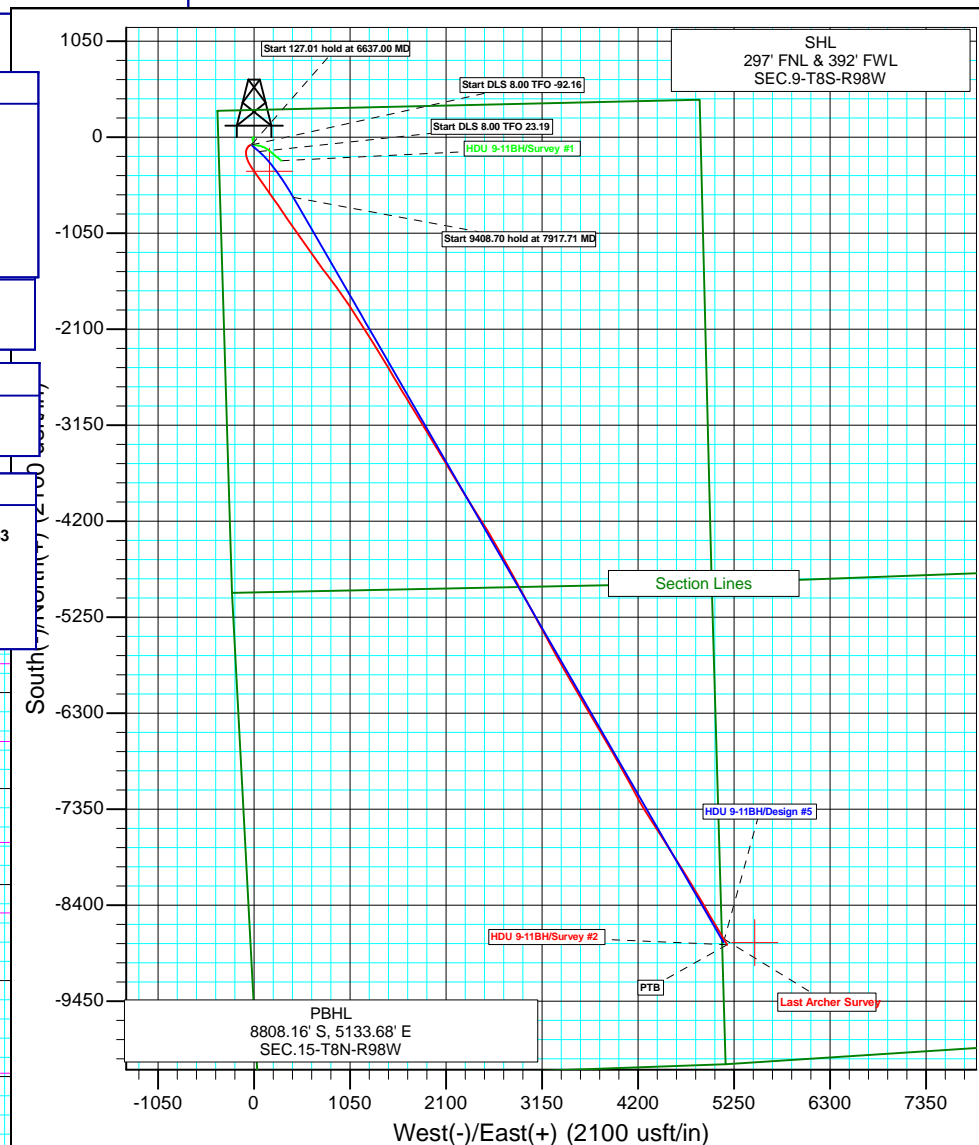
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
HDU 9-11BH tgt	7470.0	-8808.2	5473.4	39° 21' 21.835 N	108° 19' 12.946 W	
HDU 9-11BH LP	7495.0	-372.8	167.1	39° 22' 45.215 N	108° 20' 20.504 W	Point

CASING DETAILS

TVD	MD	Name
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PROJECT DETAILS: Garfield Co., CO.

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level



Plan: Design #5 (HDU 9-11BH/Wellbore #1)

Created By: Ricky Osburn

Date: 9:52, April 21 2015

Vertical Section at 150.00° (1200 usft/in)