

# Cathedral Energy Services

## Planning Report

<b>Database:</b> USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b> Well UWF15B-03 H04 596 (was 10E-03)
<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b> WELL @ 8292.98usft (Original Well Elev)
<b>Project:</b> North Piceance	<b>MD Reference:</b> WELL @ 8292.98usft (Original Well Elev)
<b>Site:</b> H04 596 Pad	<b>North Reference:</b> True
<b>Well:</b> UWF15B-03 H04 596 (was 10E-03)	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Wellbore:</b> DD	
<b>Design:</b> PLAN #4	

<b>Project</b> North Piceance		
<b>Map System:</b> US State Plane 1983	<b>System Datum:</b> Mean Sea Level	
<b>Geo Datum:</b> North American Datum 1983		
<b>Map Zone:</b> Colorado Central Zone		

<b>Site</b> H04 596 Pad					
<b>Site Position:</b>		<b>Northing:</b>	1,671,067.51 usft	<b>Latitude:</b>	39.645658
<b>From:</b> Lat/Long		<b>Easting:</b>	2,249,603.43 usft	<b>Longitude:</b>	-108.165139
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	-1.68 °

<b>Well</b> UWF15B-03 H04 596 (was 10E-03)					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,671,143.70 usft	<b>Latitude:</b> 39.645869
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,249,627.58 usft	<b>Longitude:</b> -108.165061
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b> 8,259.98 usft

<b>Wellbore</b> DD					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	IGRF2010	4/19/2012	(°) 10.34	(°) 65.81	(nT) 52,206

<b>Design</b> PLAN #4				
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	114.55

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,603.26	37.60	114.33	1,515.23	-163.44	361.42	3.00	3.00	0.00	114.33	
7,611.65	37.60	114.33	6,275.75	-1,673.89	3,701.58	0.00	0.00	0.00	0.00	
8,864.91	0.00	0.00	7,440.99	-1,837.33	4,063.00	3.00	-3.00	0.00	180.00	UWF15B-03 TGT 9.1°
8,893.09	0.28	235.76	7,469.17	-1,837.37	4,062.94	1.00	1.00	-440.85	235.76	
12,489.94	0.28	235.76	11,065.98	-1,847.33	4,048.32	0.00	0.00	0.00	0.00	UWF15B-03 BHL 9.1°
12,851.46	0.28	235.76	11,427.49	-1,848.33	4,046.85	0.00	0.00	0.00	0.00	

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<b>Project:</b>	North Piceance	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site:</b>	H04 596 Pad	<b>North Reference:</b>	True
<b>Well:</b>	UWF15B-03 H04 596 (was 10E-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	PLAN #4		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	KOP @ 350'
400.00	1.50	114.33	399.99	-0.27	0.60	0.65	3.00	3.00	
500.00	4.50	114.33	499.85	-2.43	5.36	5.89	3.00	3.00	
600.00	7.50	114.33	599.29	-6.73	14.89	16.34	3.00	3.00	
700.00	10.50	114.33	698.04	-13.18	29.14	31.98	3.00	3.00	
800.00	13.50	114.33	795.85	-21.74	48.08	52.77	3.00	3.00	
900.00	16.50	114.33	892.43	-32.41	71.66	78.65	3.00	3.00	
1,000.00	19.50	114.33	987.52	-45.14	99.82	109.55	3.00	3.00	
1,100.00	22.50	114.33	1,080.87	-59.90	132.47	145.38	3.00	3.00	
1,101.22	22.54	114.33	1,082.00	-60.09	132.89	145.85	3.00	3.00	A GROOVE
1,200.00	25.50	114.33	1,172.22	-76.66	169.52	186.05	3.00	3.00	
1,275.84	27.78	114.33	1,240.00	-90.67	200.50	220.05	3.00	3.00	B GROOVE
1,300.00	28.50	114.33	1,261.31	-95.36	210.88	231.44	3.00	3.00	
1,321.33	29.14	114.33	1,280.00	-99.60	220.25	241.73	3.00	3.00	B GROOVE BASE
1,400.00	31.50	114.33	1,347.90	-115.96	256.44	281.44	3.00	3.00	
1,500.00	34.50	114.33	1,431.76	-138.40	306.06	335.89	3.00	3.00	
1,600.00	37.50	114.33	1,512.65	-162.62	359.61	394.66	3.00	3.00	
1,603.26	37.60	114.33	1,515.23	-163.44	361.42	396.65	3.00	3.00	EOB; INC=37.6°
1,700.00	37.60	114.33	1,591.88	-187.76	415.20	455.67	0.00	0.00	
1,800.00	37.60	114.33	1,671.11	-212.90	470.79	516.68	0.00	0.00	
1,900.00	37.60	114.33	1,750.34	-238.03	526.38	577.70	0.00	0.00	
2,000.00	37.60	114.33	1,829.57	-263.17	581.97	638.71	0.00	0.00	
2,100.00	37.60	114.33	1,908.81	-288.31	637.56	699.72	0.00	0.00	
2,200.00	37.60	114.33	1,988.04	-313.45	693.16	760.73	0.00	0.00	
2,300.00	37.60	114.33	2,067.27	-338.59	748.75	821.74	0.00	0.00	
2,381.69	37.60	114.33	2,132.00	-359.13	794.16	871.58	0.00	0.00	GARDEN GULCH
2,400.00	37.60	114.33	2,146.50	-363.73	804.34	882.75	0.00	0.00	
2,500.00	37.60	114.33	2,225.73	-388.87	859.93	943.76	0.00	0.00	
2,600.00	37.60	114.33	2,304.96	-414.01	915.52	1,004.77	0.00	0.00	
2,700.00	37.60	114.33	2,384.19	-439.15	971.11	1,065.78	0.00	0.00	
2,800.00	37.60	114.33	2,463.42	-464.29	1,026.71	1,126.80	0.00	0.00	
2,900.00	37.60	114.33	2,542.66	-489.43	1,082.30	1,187.81	0.00	0.00	
3,000.00	37.60	114.33	2,621.89	-514.57	1,137.89	1,248.82	0.00	0.00	
3,100.00	37.60	114.33	2,701.12	-539.70	1,193.48	1,309.83	0.00	0.00	
3,200.00	37.60	114.33	2,780.35	-564.84	1,249.07	1,370.84	0.00	0.00	
3,300.00	37.60	114.33	2,859.58	-589.98	1,304.66	1,431.85	0.00	0.00	
3,400.00	37.60	114.33	2,938.81	-615.12	1,360.26	1,492.86	0.00	0.00	
3,500.00	37.60	114.33	3,018.04	-640.26	1,415.85	1,553.87	0.00	0.00	
3,600.00	37.60	114.33	3,097.27	-665.40	1,471.44	1,614.89	0.00	0.00	
3,700.00	37.60	114.33	3,176.51	-690.54	1,527.03	1,675.90	0.00	0.00	
3,729.64	37.60	114.33	3,199.99	-697.99	1,543.51	1,693.98	0.00	0.00	WASATCH FM
3,800.00	37.60	114.33	3,255.74	-715.68	1,582.62	1,736.91	0.00	0.00	
3,900.00	37.60	114.33	3,334.97	-740.82	1,638.21	1,797.92	0.00	0.00	
4,000.00	37.60	114.33	3,414.20	-765.96	1,693.81	1,858.93	0.00	0.00	
4,100.00	37.60	114.33	3,493.43	-791.10	1,749.40	1,919.94	0.00	0.00	
4,200.00	37.60	114.33	3,572.66	-816.23	1,804.99	1,980.95	0.00	0.00	
4,300.00	37.60	114.33	3,651.89	-841.37	1,860.58	2,041.96	0.00	0.00	
4,400.00	37.60	114.33	3,731.12	-866.51	1,916.17	2,102.97	0.00	0.00	

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**Project:** North Piceance  
**Site:** H04 596 Pad  
**Well:** UWF15B-03 H04 596 (was 10E-03)  
**Wellbore:** DD  
**Design:** PLAN #4

**Local Co-ordinate Reference:** Well UWF15B-03 H04 596 (was 10E-03)  
**TVD Reference:** WELL @ 8292.98usft (Original Well Elev)  
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**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,500.00	37.60	114.33	3,810.36	-891.65	1,971.76	2,163.99	0.00	0.00	
4,600.00	37.60	114.33	3,889.59	-916.79	2,027.36	2,225.00	0.00	0.00	
4,700.00	37.60	114.33	3,968.82	-941.93	2,082.95	2,286.01	0.00	0.00	
4,800.00	37.60	114.33	4,048.05	-967.07	2,138.54	2,347.02	0.00	0.00	
4,900.00	37.60	114.33	4,127.28	-992.21	2,194.13	2,408.03	0.00	0.00	
5,000.00	37.60	114.33	4,206.51	-1,017.35	2,249.72	2,469.04	0.00	0.00	
5,100.00	37.60	114.33	4,285.74	-1,042.49	2,305.31	2,530.05	0.00	0.00	
5,200.00	37.60	114.33	4,364.97	-1,067.63	2,360.91	2,591.06	0.00	0.00	
5,300.00	37.60	114.33	4,444.21	-1,092.77	2,416.50	2,652.07	0.00	0.00	
5,400.00	37.60	114.33	4,523.44	-1,117.90	2,472.09	2,713.09	0.00	0.00	
5,500.00	37.60	114.33	4,602.67	-1,143.04	2,527.68	2,774.10	0.00	0.00	
5,600.00	37.60	114.33	4,681.90	-1,168.18	2,583.27	2,835.11	0.00	0.00	
5,700.00	37.60	114.33	4,761.13	-1,193.32	2,638.87	2,896.12	0.00	0.00	
5,800.00	37.60	114.33	4,840.36	-1,218.46	2,694.46	2,957.13	0.00	0.00	
5,900.00	37.60	114.33	4,919.59	-1,243.60	2,750.05	3,018.14	0.00	0.00	
6,000.00	37.60	114.33	4,998.82	-1,268.74	2,805.64	3,079.15	0.00	0.00	
6,100.00	37.60	114.33	5,078.06	-1,293.88	2,861.23	3,140.16	0.00	0.00	
6,200.00	37.60	114.33	5,157.29	-1,319.02	2,916.82	3,201.18	0.00	0.00	
6,300.00	37.60	114.33	5,236.52	-1,344.16	2,972.42	3,262.19	0.00	0.00	
6,400.00	37.60	114.33	5,315.75	-1,369.30	3,028.01	3,323.20	0.00	0.00	
6,424.28	37.60	114.33	5,334.99	-1,375.40	3,041.51	3,338.01	0.00	0.00	WASATCH G
6,500.00	37.60	114.33	5,394.98	-1,394.43	3,083.60	3,384.21	0.00	0.00	
6,600.00	37.60	114.33	5,474.21	-1,419.57	3,139.19	3,445.22	0.00	0.00	
6,700.00	37.60	114.33	5,553.44	-1,444.71	3,194.78	3,506.23	0.00	0.00	
6,800.00	37.60	114.33	5,632.67	-1,469.85	3,250.37	3,567.24	0.00	0.00	
6,900.00	37.60	114.33	5,711.90	-1,494.99	3,305.97	3,628.25	0.00	0.00	
7,000.00	37.60	114.33	5,791.14	-1,520.13	3,361.56	3,689.26	0.00	0.00	
7,100.00	37.60	114.33	5,870.37	-1,545.27	3,417.15	3,750.28	0.00	0.00	
7,200.00	37.60	114.33	5,949.60	-1,570.41	3,472.74	3,811.29	0.00	0.00	
7,300.00	37.60	114.33	6,028.83	-1,595.55	3,528.33	3,872.30	0.00	0.00	
7,400.00	37.60	114.33	6,108.06	-1,620.69	3,583.92	3,933.31	0.00	0.00	
7,500.00	37.60	114.33	6,187.29	-1,645.83	3,639.52	3,994.32	0.00	0.00	
7,600.00	37.60	114.33	6,266.52	-1,670.97	3,695.11	4,055.33	0.00	0.00	
7,611.65	37.60	114.33	6,275.75	-1,673.89	3,701.58	4,062.44	0.00	0.00	Start Drop -3.00
7,700.00	34.95	114.33	6,346.98	-1,695.43	3,749.21	4,114.70	3.00	-3.00	
7,800.00	31.95	114.33	6,430.41	-1,718.14	3,799.42	4,169.81	3.00	-3.00	
7,900.00	28.95	114.33	6,516.61	-1,739.01	3,845.59	4,220.48	3.00	-3.00	
8,000.00	25.95	114.33	6,605.34	-1,758.00	3,887.58	4,266.57	3.00	-3.00	
8,100.00	22.95	114.33	6,696.36	-1,775.06	3,925.29	4,307.95	3.00	-3.00	
8,200.00	19.95	114.33	6,789.43	-1,790.12	3,958.60	4,344.51	3.00	-3.00	
8,300.00	16.95	114.33	6,884.28	-1,803.16	3,987.43	4,376.15	3.00	-3.00	
8,400.00	13.95	114.33	6,980.66	-1,814.13	4,011.70	4,402.78	3.00	-3.00	
8,500.00	10.95	114.33	7,078.29	-1,823.01	4,031.33	4,424.33	3.00	-3.00	
8,600.00	7.95	114.33	7,176.93	-1,829.77	4,046.29	4,440.75	3.00	-3.00	
8,700.00	4.95	114.33	7,276.28	-1,834.40	4,056.52	4,451.97	3.00	-3.00	
8,800.00	1.95	114.33	7,376.09	-1,836.88	4,062.00	4,457.99	3.00	-3.00	
8,864.91	0.00	0.00	7,440.99	-1,837.33	4,063.00	4,459.09	3.00	-3.00	EOD; INC=0° - WILLIAMS FORK
8,893.09	0.28	235.76	7,469.17	-1,837.37	4,062.94	4,459.05	1.00	1.00	
8,900.00	0.28	235.76	7,476.08	-1,837.39	4,062.91	4,459.04	0.00	0.00	
9,000.00	0.28	235.76	7,576.08	-1,837.66	4,062.51	4,458.78	0.00	0.00	
9,100.00	0.28	235.76	7,676.07	-1,837.94	4,062.10	4,458.53	0.00	0.00	
9,200.00	0.28	235.76	7,776.07	-1,838.22	4,061.69	4,458.27	0.00	0.00	

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**Wellbore:** DD  
**Design:** PLAN #4

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**MD Reference:** WELL @ 8292.98usft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,300.00	0.28	235.76	7,876.07	-1,838.50	4,061.29	4,458.02	0.00	0.00	
9,400.00	0.28	235.76	7,976.07	-1,838.77	4,060.88	4,457.76	0.00	0.00	
9,500.00	0.28	235.76	8,076.07	-1,839.05	4,060.47	4,457.51	0.00	0.00	
9,600.00	0.28	235.76	8,176.07	-1,839.33	4,060.07	4,457.25	0.00	0.00	
9,700.00	0.28	235.76	8,276.07	-1,839.60	4,059.66	4,457.00	0.00	0.00	
9,800.00	0.28	235.76	8,376.07	-1,839.88	4,059.26	4,456.74	0.00	0.00	
9,900.00	0.28	235.76	8,476.06	-1,840.16	4,058.85	4,456.49	0.00	0.00	
10,000.00	0.28	235.76	8,576.06	-1,840.43	4,058.44	4,456.23	0.00	0.00	
10,100.00	0.28	235.76	8,676.06	-1,840.71	4,058.04	4,455.98	0.00	0.00	
10,200.00	0.28	235.76	8,776.06	-1,840.99	4,057.63	4,455.72	0.00	0.00	
10,300.00	0.28	235.76	8,876.06	-1,841.26	4,057.22	4,455.47	0.00	0.00	
10,400.00	0.28	235.76	8,976.06	-1,841.54	4,056.82	4,455.21	0.00	0.00	
10,500.00	0.28	235.76	9,076.06	-1,841.82	4,056.41	4,454.96	0.00	0.00	
10,600.00	0.28	235.76	9,176.06	-1,842.09	4,056.00	4,454.70	0.00	0.00	
10,700.00	0.28	235.76	9,276.06	-1,842.37	4,055.60	4,454.45	0.00	0.00	
10,800.00	0.28	235.76	9,376.05	-1,842.65	4,055.19	4,454.19	0.00	0.00	
10,900.00	0.28	235.76	9,476.05	-1,842.92	4,054.78	4,453.94	0.00	0.00	
11,000.00	0.28	235.76	9,576.05	-1,843.20	4,054.38	4,453.68	0.00	0.00	
11,100.00	0.28	235.76	9,676.05	-1,843.48	4,053.97	4,453.43	0.00	0.00	
11,200.00	0.28	235.76	9,776.05	-1,843.75	4,053.56	4,453.17	0.00	0.00	
11,300.00	0.28	235.76	9,876.05	-1,844.03	4,053.16	4,452.92	0.00	0.00	
11,400.00	0.28	235.76	9,976.05	-1,844.31	4,052.75	4,452.66	0.00	0.00	
11,500.00	0.28	235.76	10,076.05	-1,844.58	4,052.34	4,452.41	0.00	0.00	
11,600.00	0.28	235.76	10,176.04	-1,844.86	4,051.94	4,452.15	0.00	0.00	
11,700.00	0.28	235.76	10,276.04	-1,845.14	4,051.53	4,451.90	0.00	0.00	
11,800.00	0.28	235.76	10,376.04	-1,845.42	4,051.12	4,451.64	0.00	0.00	
11,900.00	0.28	235.76	10,476.04	-1,845.69	4,050.72	4,451.39	0.00	0.00	
12,000.00	0.28	235.76	10,576.04	-1,845.97	4,050.31	4,451.13	0.00	0.00	
12,100.00	0.28	235.76	10,676.04	-1,846.25	4,049.90	4,450.88	0.00	0.00	
12,200.00	0.28	235.76	10,776.04	-1,846.52	4,049.50	4,450.62	0.00	0.00	
12,300.00	0.28	235.76	10,876.04	-1,846.80	4,049.09	4,450.37	0.00	0.00	
12,400.00	0.28	235.76	10,976.03	-1,847.08	4,048.68	4,450.11	0.00	0.00	
12,489.94	0.28	235.76	11,065.98	-1,847.33	4,048.32	4,449.89	0.00	0.00	TD @ 12,489' MD - ROLLINS
12,500.00	0.28	235.76	11,076.03	-1,847.35	4,048.28	4,449.86	0.00	0.00	
12,600.00	0.28	235.76	11,176.03	-1,847.63	4,047.87	4,449.61	0.00	0.00	
12,700.00	0.28	235.76	11,276.03	-1,847.91	4,047.46	4,449.35	0.00	0.00	
12,722.95	0.28	235.76	11,298.98	-1,847.97	4,047.37	4,449.29	0.00	0.00	COZZETTE
12,800.00	0.28	235.76	11,376.03	-1,848.18	4,047.06	4,449.10	0.00	0.00	
12,851.46	0.28	235.76	11,427.49	-1,848.33	4,046.85	4,448.96	0.00	0.00	PERMIT TD @ 11,427' TVD

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well UWF15B-03 H04 596 (was 10E-03)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Project:</b>	North Piceance	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site:</b>	H04 596 Pad	<b>North Reference:</b>	True
<b>Well:</b>	UWF15B-03 H04 596 (was 10E-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	PLAN #4		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
UWF15B-03 TGT (2) - plan misses target center by 534.22usft at 8865.66usft MD (7441.74 TVD, -1837.33 N, 4063.00 E) - Point	0.00	0.00	7,440.99	-2,371.49	4,055.19	1,668,654.29	2,253,611.46	39.639358	-108.150662
UWF10E-03 TGT - plan misses target center by 0.30usft at 8864.91usft MD (7440.99 TVD, -1837.33 N, 4063.00 E) - Point	0.00	0.00	7,440.99	-1,837.28	4,063.29	1,669,188.03	2,253,635.23	39.640825	-108.150633
UWF15B-03 BHL (2) - plan misses target center by 534.26usft at 12491.46usft MD (11067.50 TVD, -1847.33 N, 4048.31 E) - Rectangle (sides W30.00 H50.00 D0.00)	0.00	0.00	11,065.98	-2,381.49	4,038.20	1,668,644.79	2,253,594.19	39.639331	-108.150722
UWF15B-03 TGT 9.19 - plan hits target center - Point	0.00	0.00	7,440.99	-1,837.33	4,063.00	1,669,187.99	2,253,634.94	39.640824	-108.150634
UWF15B-03 BHL 9.19 - plan hits target center - Rectangle (sides W30.00 H50.00 D0.00)	0.00	0.00	11,065.98	-1,847.33	4,048.32	1,669,178.43	2,253,619.97	39.640797	-108.150686
UWF10E-03 BHL - plan misses target center by 0.09usft at 12489.94usft MD (11065.98 TVD, -1847.33 N, 4048.32 E) - Rectangle (sides W30.00 H50.00 D0.00)	0.00	0.00	11,065.98	-1,847.24	4,048.29	1,669,178.51	2,253,619.94	39.640797	-108.150686

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
1,101.22	1,082.00	A GROOVE				
1,275.84	1,240.00	B GROOVE				
1,321.33	1,280.00	B GROOVE BASE				
2,381.69	2,132.00	GARDEN GULCH				
3,729.64	3,199.99	WASATCH FM				
6,424.28	5,334.99	WASATCH G				
8,864.91	7,440.99	WILLIAMS FORK				
12,489.94	11,065.98	ROLLINS				
12,722.95	11,298.98	COZZETTE				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)		
350.00	350.00	0.00	0.00	KOP @ 350'	
1,603.26	1,515.23	-163.44	361.42	EOB; INC=37.6°	
7,611.65	6,275.75	-1,673.89	3,701.58	Start Drop -3.00	
8,864.91	7,440.99	-1,837.33	4,063.00	EOD; INC=0°	
12,489.94	11,065.98	-1,837.37	4,062.94	TD @ 12,489' MD	
12,851.46	11,427.49	-1,847.33	4,048.32	PERMIT TD @ 11,427' TVD	