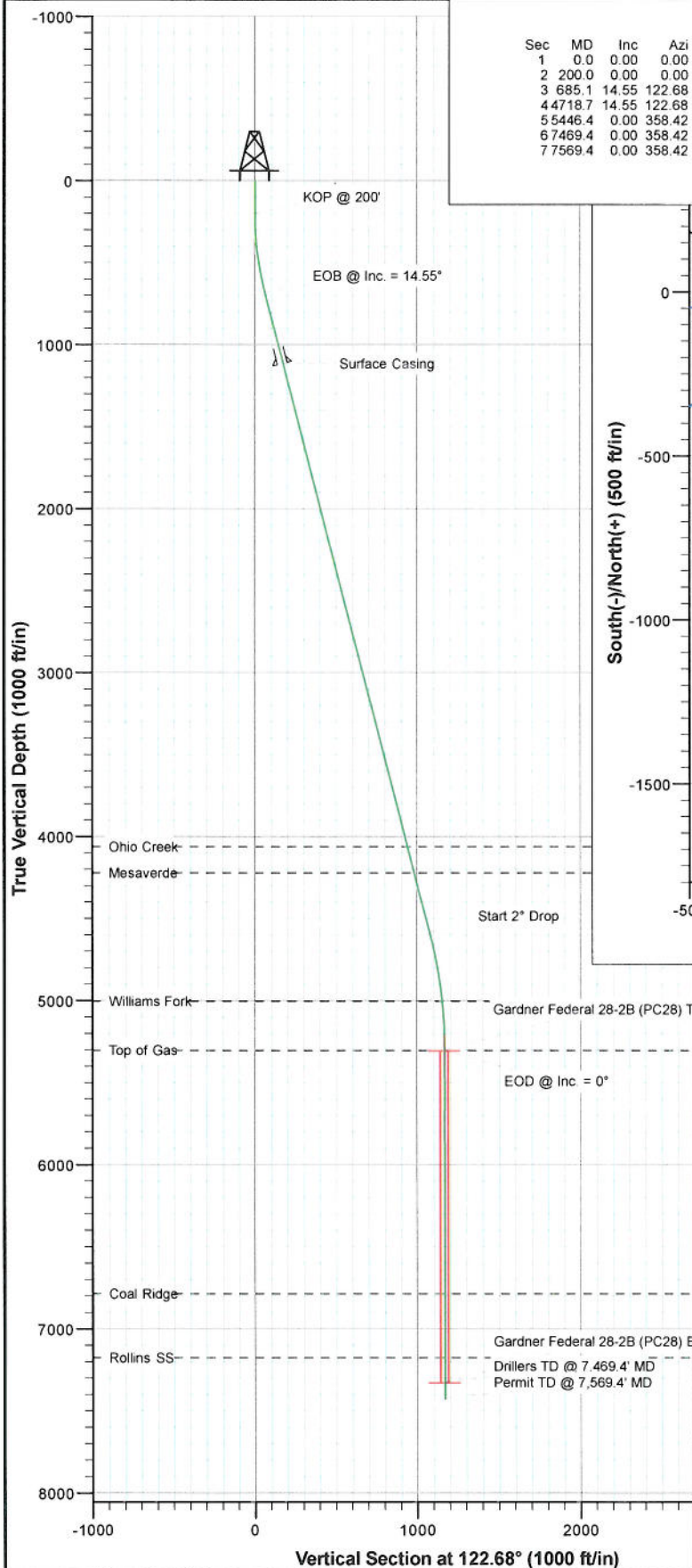
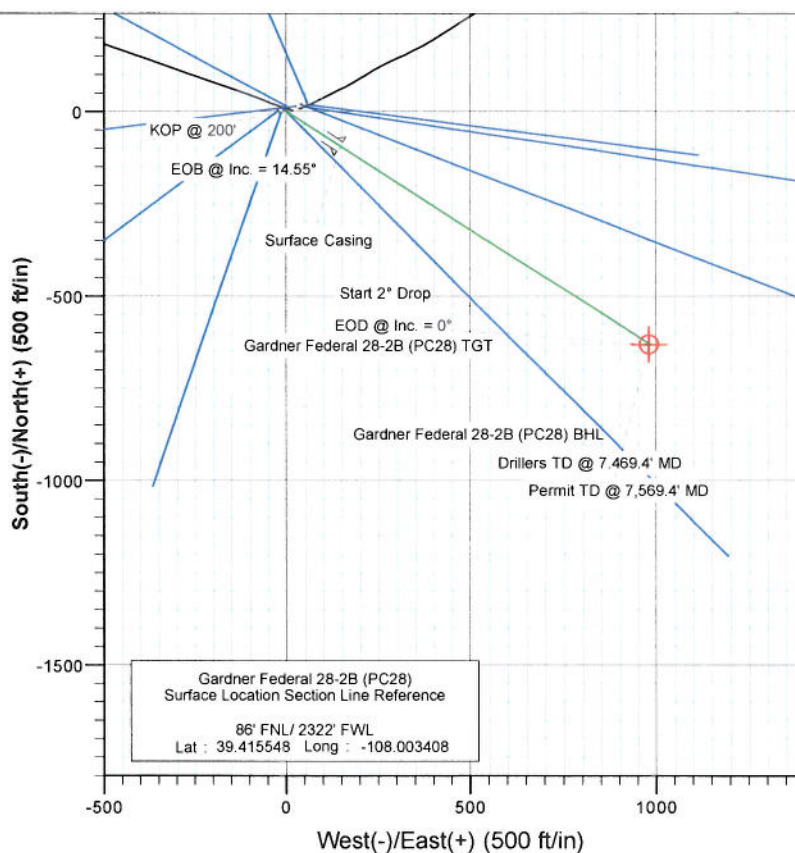




Project: S. Piceance (Parachute)
 Site: NENW Sec28-T7S-R95W (PC-28)
 Well: Gardner Federal 28-2B (PC28)
 Wellbore: DD
 Plan: Plan #3



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	685.1	14.55	122.68	679.9	-33.1	51.6	3.00	122.68	61.3	
4	4718.7	14.55	122.68	4584.1	-580.5	904.7	0.00	0.00	1074.9	
5	5446.4	0.00	358.42	5304.0	-630.1	982.1	2.00	180.00	1166.8	Gardner Federal 28-2B (PC28) TGT
6	7469.4	0.00	358.42	7327.0	-630.1	982.1	0.00	358.42	1166.8	Gardner Federal 28-2B (PC28) BHL
7	7569.4	0.00	358.42	7427.0	-630.1	982.1	0.00	358.42	1166.8	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4063.0	4180.4	Ohio Creek
4223.0	4345.7	Mesaverde
5004.0	5145.9	Williams Fork
5304.0	5446.4	Top of Gas
6787.0	6929.4	Coal Ridge
7177.0	7319.4	Rollins SS



Azimuths to True North
 Magnetic North: 10.39°
 Magnetic Field
 Strength: 52290.7nT
 Dip Angle: 65.70°
 Date: 11/18/2010
 Model: IGRF200510

Plan #3 Gardner Federal 28-2B (PC28) 115XXX; SC				
KBE @ 6442.0ft (Original Well Elev) North American Datum 1983 Well Gardner Federal 28-2B (PC28), True North				
Target	Azimuth	Origin Type	N/S	
Gardner Federal 28-2B (PC28) BHL	122.68	Spot	0.0	
Name	TVD	+N/-S	+E/-W	Latitude
Gardner Federal 28-2B (PC28) TGT	5304.0	-630.1	982.1	39.413818
Gardner Federal 28-2B (PC28) BHL	7327.0	-630.1	982.1	39.413818
				Longitude
				-107.999932
				-107.999932

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Gardner Federal 28-2B (PC28)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6442.0ft (Original Well Elev)
Project:	S. Piceance (Parachute)	MD Reference:	KBE @ 6442.0ft (Original Well Elev)
Site:	NENW Sec28-T7S-R95W (PC28)	North Reference:	True
Well:	Gardner Federal 28-2B (PC28)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Project	S. Piceance (Parachute), Garfield County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	NENW Sec28-T7S-R95W (PC28)				
Site Position:		Northing:	1,585,994.80 ft	Latitude:	39.415560
From:	Lat/Long	Easting:	2,292,840.18 ft	Longitude:	-108.003350
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.58 °

Well	Gardner Federal 28-2B (PC28)					
Well Position	+N/-S	0.0 ft	Northing:	1,585,990.87 ft	Latitude:	39.415548
	+E/-W	0.0 ft	Easting:	2,292,823.68 ft	Longitude:	-108.003408
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,420.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/18/2010	10.39	65.70	52,291

Design	Plan #3				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	122.68	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
685.1	14.55	122.68	679.9	-33.1	51.6	3.00	3.00	0.00	122.68	
4,718.7	14.55	122.68	4,584.1	-580.5	904.7	0.00	0.00	0.00	0.00	
5,446.4	0.00	358.42	5,304.0	-630.1	982.1	2.00	-2.00	0.00	180.00	Gardner Federal 28-2
7,469.4	0.00	358.42	7,327.0	-630.1	982.1	0.00	0.00	0.00	358.42	Gardner Federal 28-2
7,569.4	0.00	358.42	7,427.0	-630.1	982.1	0.00	0.00	0.00	358.42	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Gardner Federal 28-2B (PC28)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6442.0ft (Original Well Elev)
Project:	S. Piceance (Parachute)	MD Reference:	KBE @ 6442.0ft (Original Well Elev)
Site:	NENW Sec28-T7S-R95W (PC28)	North Reference:	True
Well:	Gardner Federal 28-2B (PC28)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
300.0	3.00	122.68	300.0	-1.4	2.2	2.6	3.00	3.00	
400.0	6.00	122.68	399.6	-5.6	8.8	10.5	3.00	3.00	
500.0	9.00	122.68	498.8	-12.7	19.8	23.5	3.00	3.00	
600.0	12.00	122.68	597.1	-22.5	35.1	41.7	3.00	3.00	
685.1	14.55	122.68	679.9	-33.1	51.6	61.3	3.00	3.00	EOB @ Inc. = 14.55°
700.0	14.55	122.68	694.3	-35.1	54.7	65.0	0.00	0.00	
800.0	14.55	122.68	791.1	-48.7	75.9	90.2	0.00	0.00	
900.0	14.55	122.68	887.9	-62.3	97.0	115.3	0.00	0.00	
1,000.0	14.55	122.68	984.7	-75.8	118.2	140.4	0.00	0.00	
1,100.0	14.55	122.68	1,081.5	-89.4	139.3	165.5	0.00	0.00	
1,135.0	14.55	122.68	1,115.4	-94.1	146.7	174.3	0.00	0.00	Surface Casing
1,200.0	14.55	122.68	1,178.3	-103.0	160.5	190.7	0.00	0.00	
1,300.0	14.55	122.68	1,275.1	-116.5	181.6	215.8	0.00	0.00	
1,400.0	14.55	122.68	1,371.9	-130.1	202.8	240.9	0.00	0.00	
1,500.0	14.55	122.68	1,468.7	-143.7	223.9	266.1	0.00	0.00	
1,600.0	14.55	122.68	1,565.4	-157.2	245.1	291.2	0.00	0.00	
1,700.0	14.55	122.68	1,662.2	-170.8	266.2	316.3	0.00	0.00	
1,800.0	14.55	122.68	1,759.0	-184.4	287.4	341.4	0.00	0.00	
1,900.0	14.55	122.68	1,855.8	-198.0	308.5	366.6	0.00	0.00	
2,000.0	14.55	122.68	1,952.6	-211.5	329.7	391.7	0.00	0.00	
2,100.0	14.55	122.68	2,049.4	-225.1	350.8	416.8	0.00	0.00	
2,200.0	14.55	122.68	2,146.2	-238.7	372.0	442.0	0.00	0.00	
2,300.0	14.55	122.68	2,243.0	-252.2	393.1	467.1	0.00	0.00	
2,400.0	14.55	122.68	2,339.8	-265.8	414.3	492.2	0.00	0.00	
2,500.0	14.55	122.68	2,436.6	-279.4	435.4	517.3	0.00	0.00	
2,600.0	14.55	122.68	2,533.4	-292.9	456.6	542.5	0.00	0.00	
2,700.0	14.55	122.68	2,630.1	-306.5	477.7	567.6	0.00	0.00	
2,800.0	14.55	122.68	2,726.9	-320.1	498.9	592.7	0.00	0.00	
2,900.0	14.55	122.68	2,823.7	-333.7	520.0	617.9	0.00	0.00	
3,000.0	14.55	122.68	2,920.5	-347.2	541.2	643.0	0.00	0.00	
3,100.0	14.55	122.68	3,017.3	-360.8	562.3	668.1	0.00	0.00	
3,200.0	14.55	122.68	3,114.1	-374.4	583.5	693.3	0.00	0.00	
3,300.0	14.55	122.68	3,210.9	-387.9	604.6	718.4	0.00	0.00	
3,400.0	14.55	122.68	3,307.7	-401.5	625.8	743.5	0.00	0.00	
3,500.0	14.55	122.68	3,404.5	-415.1	646.9	768.6	0.00	0.00	
3,600.0	14.55	122.68	3,501.3	-428.6	668.1	793.8	0.00	0.00	
3,700.0	14.55	122.68	3,598.1	-442.2	689.2	818.9	0.00	0.00	
3,800.0	14.55	122.68	3,694.8	-455.8	710.4	844.0	0.00	0.00	
3,900.0	14.55	122.68	3,791.6	-469.4	731.5	869.2	0.00	0.00	
4,000.0	14.55	122.68	3,888.4	-482.9	752.7	894.3	0.00	0.00	
4,100.0	14.55	122.68	3,985.2	-496.5	773.8	919.4	0.00	0.00	
4,180.4	14.55	122.68	4,063.0	-507.4	790.8	939.6	0.00	0.00	Ohio Creek
4,200.0	14.55	122.68	4,082.0	-510.1	795.0	944.5	0.00	0.00	
4,300.0	14.55	122.68	4,178.8	-523.6	816.1	969.7	0.00	0.00	
4,345.7	14.55	122.68	4,223.0	-529.8	825.8	981.2	0.00	0.00	Mesaverde
4,400.0	14.55	122.68	4,275.6	-537.2	837.3	994.8	0.00	0.00	
4,500.0	14.55	122.68	4,372.4	-550.8	858.4	1,019.9	0.00	0.00	
4,600.0	14.55	122.68	4,469.2	-564.3	879.6	1,045.1	0.00	0.00	
4,700.0	14.55	122.68	4,566.0	-577.9	900.7	1,070.2	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Gardner Federal 28-2B (PC28)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6442.0ft (Original Well Elev)
Project:	S. Piceance (Parachute)	MD Reference:	KBE @ 6442.0ft (Original Well Elev)
Site:	NENW Sec28-T7S-R95W (PC28)	North Reference:	True
Well:	Gardner Federal 28-2B (PC28)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,718.7	14.55	122.68	4,584.1	-580.5	904.7	1,074.9	0.00	0.00	Start 2" Drop
4,800.0	12.93	122.68	4,663.0	-590.9	921.0	1,094.2	2.00	-2.00	
4,900.0	10.93	122.68	4,760.9	-602.0	938.3	1,114.9	2.00	-2.00	
5,000.0	8.93	122.68	4,859.4	-611.3	952.9	1,132.1	2.00	-2.00	
5,100.0	6.93	122.68	4,958.4	-618.8	964.5	1,145.9	2.00	-2.00	
5,145.9	6.01	122.68	5,004.0	-621.6	968.8	1,151.1	2.00	-2.00	Williams Fork
5,200.0	4.93	122.68	5,057.9	-624.4	973.2	1,156.2	2.00	-2.00	
5,300.0	2.93	122.68	5,157.6	-628.1	978.9	1,163.1	2.00	-2.00	
5,400.0	0.93	122.68	5,257.6	-629.9	981.8	1,166.5	2.00	-2.00	
5,446.4	0.00	358.42	5,304.0	-630.1	982.1	1,166.8	2.00	-2.00	EOD @ Inc. = 0° - Top of Gas
5,500.0	0.00	358.42	5,357.6	-630.1	982.1	1,166.8	0.00	0.00	
5,600.0	0.00	358.42	5,457.6	-630.1	982.1	1,166.8	0.00	0.00	
5,700.0	0.00	358.42	5,557.6	-630.1	982.1	1,166.8	0.00	0.00	
5,800.0	0.00	358.42	5,657.6	-630.1	982.1	1,166.8	0.00	0.00	
5,900.0	0.00	358.42	5,757.6	-630.1	982.1	1,166.8	0.00	0.00	
6,000.0	0.00	358.42	5,857.6	-630.1	982.1	1,166.8	0.00	0.00	
6,100.0	0.00	358.42	5,957.6	-630.1	982.1	1,166.8	0.00	0.00	
6,200.0	0.00	358.42	6,057.6	-630.1	982.1	1,166.8	0.00	0.00	
6,300.0	0.00	358.42	6,157.6	-630.1	982.1	1,166.8	0.00	0.00	
6,400.0	0.00	358.42	6,257.6	-630.1	982.1	1,166.8	0.00	0.00	
6,500.0	0.00	358.42	6,357.6	-630.1	982.1	1,166.8	0.00	0.00	
6,600.0	0.00	358.42	6,457.6	-630.1	982.1	1,166.8	0.00	0.00	
6,700.0	0.00	358.42	6,557.6	-630.1	982.1	1,166.8	0.00	0.00	
6,800.0	0.00	358.42	6,657.6	-630.1	982.1	1,166.8	0.00	0.00	
6,900.0	0.00	358.42	6,757.6	-630.1	982.1	1,166.8	0.00	0.00	
6,929.4	0.00	358.42	6,787.0	-630.1	982.1	1,166.8	0.00	0.00	Coal Ridge
7,000.0	0.00	358.42	6,857.6	-630.1	982.1	1,166.8	0.00	0.00	
7,100.0	0.00	358.42	6,957.6	-630.1	982.1	1,166.8	0.00	0.00	
7,200.0	0.00	358.42	7,057.6	-630.1	982.1	1,166.8	0.00	0.00	
7,300.0	0.00	358.42	7,157.6	-630.1	982.1	1,166.8	0.00	0.00	
7,319.4	0.00	358.42	7,177.0	-630.1	982.1	1,166.8	0.00	0.00	Rollins SS
7,400.0	0.00	358.42	7,257.6	-630.1	982.1	1,166.8	0.00	0.00	
7,469.4	0.00	358.42	7,327.0	-630.1	982.1	1,166.8	0.00	0.00	Drillers TD @ 7,469.4' MD
7,500.0	0.00	358.42	7,357.6	-630.1	982.1	1,166.8	0.00	0.00	
7,569.4	0.00	358.42	7,427.0	-630.1	982.1	1,166.8	0.00	0.00	Permit TD @ 7,569.4' MD

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Gardner Federal 28-2B (0.00	358.42	5,304.0	-630.1	982.1	1,585,333.95	2,293,788.02	39.413818	-107.999932
- plan hits target center									
- Circle (radius 25.0)									
Gardner Federal 28-2B (0.00	358.42	7,327.0	-630.1	982.1	1,585,333.95	2,293,788.02	39.413818	-107.999932
- plan hits target center									
- Circle (radius 25.0)									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Gardner Federal 28-2B (PC28)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6442.0ft (Original Well Elev)
Project:	S. Piceance (Parachute)	MD Reference:	KBE @ 6442.0ft (Original Well Elev)
Site:	NENW Sec28-T7S-R95W (PC28)	North Reference:	True
Well:	Gardner Federal 28-2B (PC28)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,135.0	1,115.4	Surface Casing	8.625	12.250

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,180.4	4,063.0	Ohio Creek		0.00	
4,345.7	4,223.0	Mesaverde		0.00	
5,145.9	5,004.0	Williams Fork		0.00	
5,446.4	5,304.0	Top of Gas		0.00	
6,929.4	6,787.0	Coal Ridge		0.00	
7,319.4	7,177.0	Rollins SS		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
685.1	679.9	-33.1	51.6	EOB @ Inc. = 14.55°
4,718.7	4,584.1	-580.5	904.7	Start 2° Drop
5,446.4	5,304.0	-630.1	982.1	EOD @ Inc. = 0°
7,469.4	7,327.0	-630.1	982.1	Drillers TD @ 7,469.4' MD
7,569.4	7,427.0	-630.1	982.1	Permit TD @ 7,569.4' MD