



# **SHELL E&P**

**MOFFAT COUNTY, CO**

**HAMILTON 2-29**

**HAMILTON 2-29**

**HAMILTON 2-29**

**Plan: PLAN #2**

## **Standard Planning Report**

**26 July, 2012**





Project: MOFFAT COUNTY, CO  
Site: HAMILTON 2-29  
Well: HAMILTON 2-29  
Wellbore: HAMILTON 2-29  
Design: PLAN #2  
Latitude: 40° 21' 15.240 N  
Longitude: 107° 37' 18.000 W  
GL: 6343.00  
KB: WELL @ 6354.00ft (Original Well Elev)



Weatherford®

#### WELLBORE TARGET DETAILS (LAT/LONG)

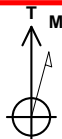
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL - HAMILTON 2-29	2881.46	-2760.53	-731.67	40° 20' 47.960 N	107° 37' 27.450 W	Point

#### WELL DETAILS: HAMILTON 2-29

+N/-S	+E/-W	Northing	Ground Level: Easting	6343.00 Latitude	Longitude	Slot
0.00	0.00	1378961.37	2408751.36	40° 21' 15.240 N	107° 37' 18.000 W	

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2258.00	0.00	0.00	2258.00	0.00	0.00	0.00	0.00	0.00	Start DLS 7.00 TFO 194.84
3623.39	95.58	194.84	3072.64	-868.09	-230.08	7.00	194.84	898.06	Start 1967.09 hold at 3623.39 MD
5590.49	95.58	194.84	2881.46	-2760.53	-731.67	0.00	0.00	2855.84	TD at 5590.49

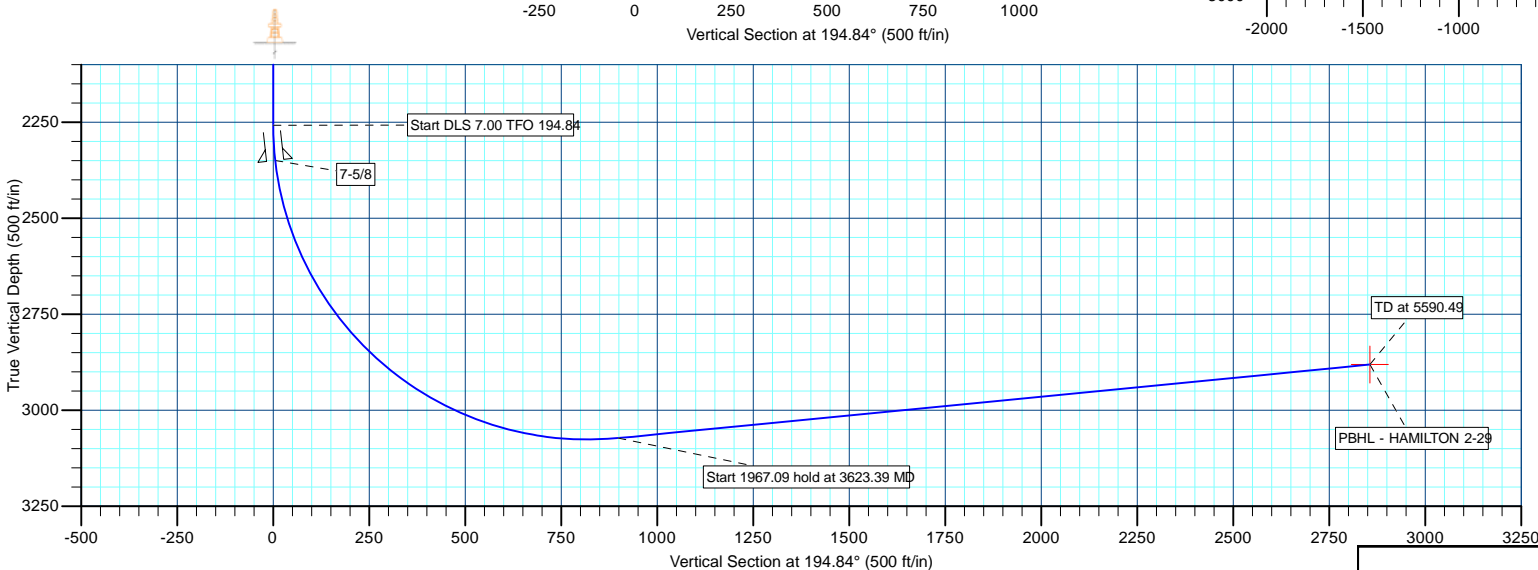
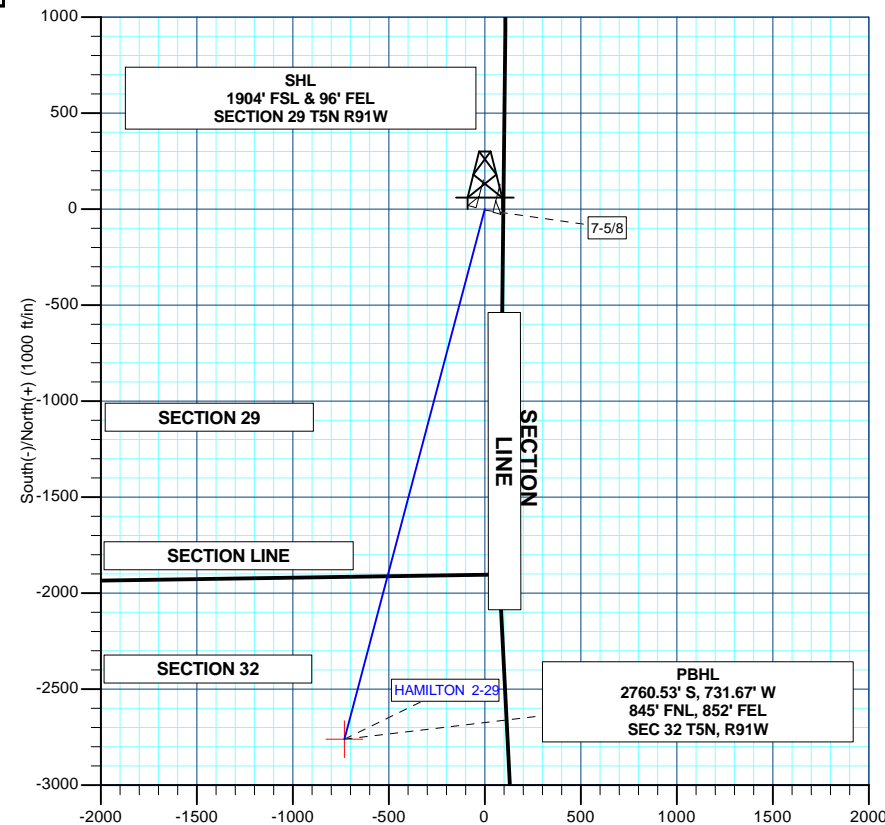
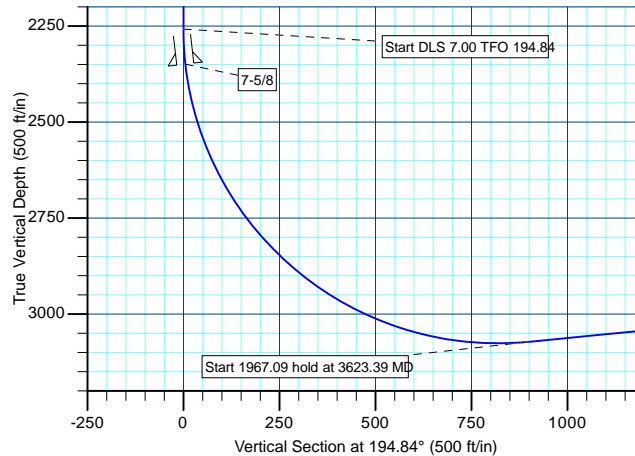


Azimuths to True North  
Magnetic North: 10.17°

Magnetic Field  
Strength: 52604.2snT  
Dip Angle: 66.46°  
Date: 7/11/2012  
Model: BGGM2011

#### CASING DETAILS

TVD	MD	Name	Size
2349.81	2350.00	7-5/8	7-5/8



Plan: PLAN #2 (HAMILTON 2-29/HAMILTON 2-29)

Created By: MATT MAYDEW Date: 15:00, July 26 2012



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well HAMILTON 2-29
<b>Company:</b>	SHELL E&P	<b>TVD Reference:</b>	WELL @ 6354.00ft (Original Well Elev)
<b>Project:</b>	MOFFAT COUNTY, CO	<b>MD Reference:</b>	WELL @ 6354.00ft (Original Well Elev)
<b>Site:</b>	HAMILTON 2-29	<b>North Reference:</b>	True
<b>Well:</b>	HAMILTON 2-29	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HAMILTON 2-29		
<b>Design:</b>	PLAN #2		

<b>Project</b>	MOFFAT COUNTY, CO		
<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 Northern Zone		

<b>Site</b>	HAMILTON 2-29			
<b>Site Position:</b>		<b>Northing:</b>	1,378,961.37 usft	<b>Latitude:</b> 40° 21' 15.240 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,408,751.36 usft	<b>Longitude:</b> 107° 37' 18.000 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b> -1.37 °

<b>Well</b>	HAMILTON 2-29			
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	1,378,961.37 usft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,408,751.36 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft
			<b>Ground Level:</b>	6,343.00 ft

<b>Wellbore</b>	HAMILTON 2-29				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2011	7/11/2012	10.17	66.46	52,604

<b>Design</b>	PLAN #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	194.84

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
2,258.00	0.00	0.00	2,258.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,623.39	95.58	194.84	3,072.64	-868.09	-230.08	7.00	7.00	-12.10	194.84	
5,590.49	95.58	194.84	2,881.46	-2,760.53	-731.67	0.00	0.00	0.00	0.00	PBHL - HAMILTON 2-



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well HAMILTON 2-29
<b>Company:</b>	SHELL E&P	<b>TVD Reference:</b>	WELL @ 6354.00ft (Original Well Elev)
<b>Project:</b>	MOFFAT COUNTY, CO	<b>MD Reference:</b>	WELL @ 6354.00ft (Original Well Elev)
<b>Site:</b>	HAMILTON 2-29	<b>North Reference:</b>	True
<b>Well:</b>	HAMILTON 2-29	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HAMILTON 2-29		
<b>Design:</b>	PLAN #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	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	0.00
200.00	0.00	0.00	200.00	0.00	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	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
Start DLS 7.00 TFO 194.84									
2,258.00	0.00	0.00	2,258.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	2.94	194.84	2,299.98	-1.04	-0.28	1.08	7.00	7.00	0.00
2,350.00	6.44	194.84	2,349.81	-4.99	-1.32	5.16	7.00	7.00	0.00
2,400.00	9.94	194.84	2,399.29	-11.88	-3.15	12.29	7.00	7.00	0.00
2,450.00	13.44	194.84	2,448.24	-21.67	-5.74	22.42	7.00	7.00	0.00
2,500.00	16.94	194.84	2,496.49	-34.33	-9.10	35.51	7.00	7.00	0.00
2,550.00	20.44	194.84	2,543.85	-49.81	-13.20	51.53	7.00	7.00	0.00
2,600.00	23.94	194.84	2,590.14	-68.07	-18.04	70.42	7.00	7.00	0.00
2,650.00	27.44	194.84	2,635.19	-89.01	-23.59	92.09	7.00	7.00	0.00
2,700.00	30.94	194.84	2,678.83	-112.58	-29.84	116.47	7.00	7.00	0.00
2,750.00	34.44	194.84	2,720.90	-138.68	-36.76	143.47	7.00	7.00	0.00
2,800.00	37.94	194.84	2,761.25	-167.21	-44.32	172.99	7.00	7.00	0.00
2,850.00	41.44	194.84	2,799.72	-198.08	-52.50	204.91	7.00	7.00	0.00
2,900.00	44.94	194.84	2,836.17	-231.15	-61.27	239.13	7.00	7.00	0.00
2,950.00	48.44	194.84	2,870.46	-266.31	-70.58	275.51	7.00	7.00	0.00
3,000.00	51.94	194.84	2,902.47	-303.43	-80.42	313.91	7.00	7.00	0.00
3,050.00	55.44	194.84	2,932.07	-342.37	-90.74	354.19	7.00	7.00	0.00
3,100.00	58.94	194.84	2,959.16	-382.99	-101.51	396.21	7.00	7.00	0.00
3,150.00	62.44	194.84	2,983.63	-425.13	-112.68	439.80	7.00	7.00	0.00
3,200.00	65.94	194.84	3,005.40	-468.63	-124.21	484.81	7.00	7.00	0.00
3,250.00	69.44	194.84	3,024.38	-513.33	-136.06	531.06	7.00	7.00	0.00
3,300.00	72.94	194.84	3,040.50	-559.08	-148.18	578.38	7.00	7.00	0.00
3,350.00	76.44	194.84	3,053.70	-605.69	-160.53	626.60	7.00	7.00	0.00
3,400.00	79.94	194.84	3,063.93	-652.99	-173.07	675.53	7.00	7.00	0.00
3,450.00	83.44	194.84	3,071.15	-700.80	-185.74	725.00	7.00	7.00	0.00
3,500.00	86.94	194.84	3,075.35	-748.96	-198.51	774.82	7.00	7.00	0.00
3,550.00	90.44	194.84	3,076.49	-797.27	-211.31	824.80	7.00	7.00	0.00
3,600.00	93.94	194.84	3,074.58	-845.56	-224.11	874.75	7.00	7.00	0.00
Start 1967.09 hold at 3623.39 MD - 7"									
3,623.39	95.58	194.84	3,072.64	-868.09	-230.08	898.06	7.00	7.00	0.00



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well HAMILTON 2-29
<b>Company:</b>	SHELL E&P	<b>TVD Reference:</b>	WELL @ 6354.00ft (Original Well Elev)
<b>Project:</b>	MOFFAT COUNTY, CO	<b>MD Reference:</b>	WELL @ 6354.00ft (Original Well Elev)
<b>Site:</b>	HAMILTON 2-29	<b>North Reference:</b>	True
<b>Well:</b>	HAMILTON 2-29	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HAMILTON 2-29		
<b>Design:</b>	PLAN #2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,700.00	95.58	194.84	3,065.19	-941.79	-249.62	974.31	0.00	0.00	0.00	
3,800.00	95.58	194.84	3,055.47	-1,037.99	-275.12	1,073.83	0.00	0.00	0.00	
3,900.00	95.58	194.84	3,045.75	-1,134.20	-300.61	1,173.36	0.00	0.00	0.00	
4,000.00	95.58	194.84	3,036.04	-1,230.40	-326.11	1,272.89	0.00	0.00	0.00	
4,100.00	95.58	194.84	3,026.32	-1,326.61	-351.61	1,372.41	0.00	0.00	0.00	
4,200.00	95.58	194.84	3,016.60	-1,422.81	-377.11	1,471.94	0.00	0.00	0.00	
4,300.00	95.58	194.84	3,006.88	-1,519.02	-402.61	1,571.47	0.00	0.00	0.00	
4,400.00	95.58	194.84	2,997.16	-1,615.22	-428.11	1,670.99	0.00	0.00	0.00	
4,500.00	95.58	194.84	2,987.44	-1,711.43	-453.61	1,770.52	0.00	0.00	0.00	
4,600.00	95.58	194.84	2,977.72	-1,807.63	-479.11	1,870.05	0.00	0.00	0.00	
4,700.00	95.58	194.84	2,968.00	-1,903.84	-504.60	1,969.57	0.00	0.00	0.00	
4,800.00	95.58	194.84	2,958.29	-2,000.04	-530.10	2,069.10	0.00	0.00	0.00	
4,900.00	95.58	194.84	2,948.57	-2,096.25	-555.60	2,168.63	0.00	0.00	0.00	
5,000.00	95.58	194.84	2,938.85	-2,192.45	-581.10	2,268.15	0.00	0.00	0.00	
5,100.00	95.58	194.84	2,929.13	-2,288.66	-606.60	2,367.68	0.00	0.00	0.00	
5,200.00	95.58	194.84	2,919.41	-2,384.86	-632.10	2,467.21	0.00	0.00	0.00	
5,300.00	95.58	194.84	2,909.69	-2,481.07	-657.60	2,566.73	0.00	0.00	0.00	
5,400.00	95.58	194.84	2,899.97	-2,577.27	-683.10	2,666.26	0.00	0.00	0.00	
5,500.00	95.58	194.84	2,890.25	-2,673.48	-708.59	2,765.79	0.00	0.00	0.00	
TD at 5590.49 - PBHL - HAMILTON 2-29										
5,590.49	95.58	194.84	2,881.46	-2,760.53	-731.67	2,855.84	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
PBHL - HAMILTON 2-29	0.00	0.00	2,881.46	-2,760.53	-731.67	1,376,219.15	2,407,953.87	40° 20' 47.960 N	107° 37' 27.450 W	
- plan hits target center										
- Point										

Casing Points						Casing Diameter (")	Hole Diameter (")
Measured Depth (ft)	Vertical Depth (ft)	Name					
3,623.39	3,072.64	7"				7	8-3/4

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,258.00	2,258.00	0.00	0.00	Start DLS 7.00 TFO 194.84	
3,623.39	3,072.64	-868.09	-230.08	Start 1967.09 hold at 3623.39 MD	
5,590.49	2,881.46	-2,760.53	-731.67	TD at 5590.49	