



Departure

Energy Services (US) LP

PeakView Energy Company

Moffat County, CO

Sec 3 T6N R90W

Ence 1H

Horizontal #1

Plan: H PLAN #3 (LATERAL)

Standard Planning Report

07 August, 2012

Company Name: PeakView Energy Company

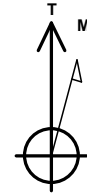
Project: Moffat County, CO
 Site: Sec 3 T6N R90W
 Well: Ence 1H
 Wellbore: Horizontal #1
 Design: H PLAN #3 (LATERAL)

Ence 1H
 North American Datum 1983
 GRS 1980
 Colorado Northern Zone
 North Ref: True
 WELL @ 6226.20ft (RKB @ 20')
 40.500343°N
 107.482955°W

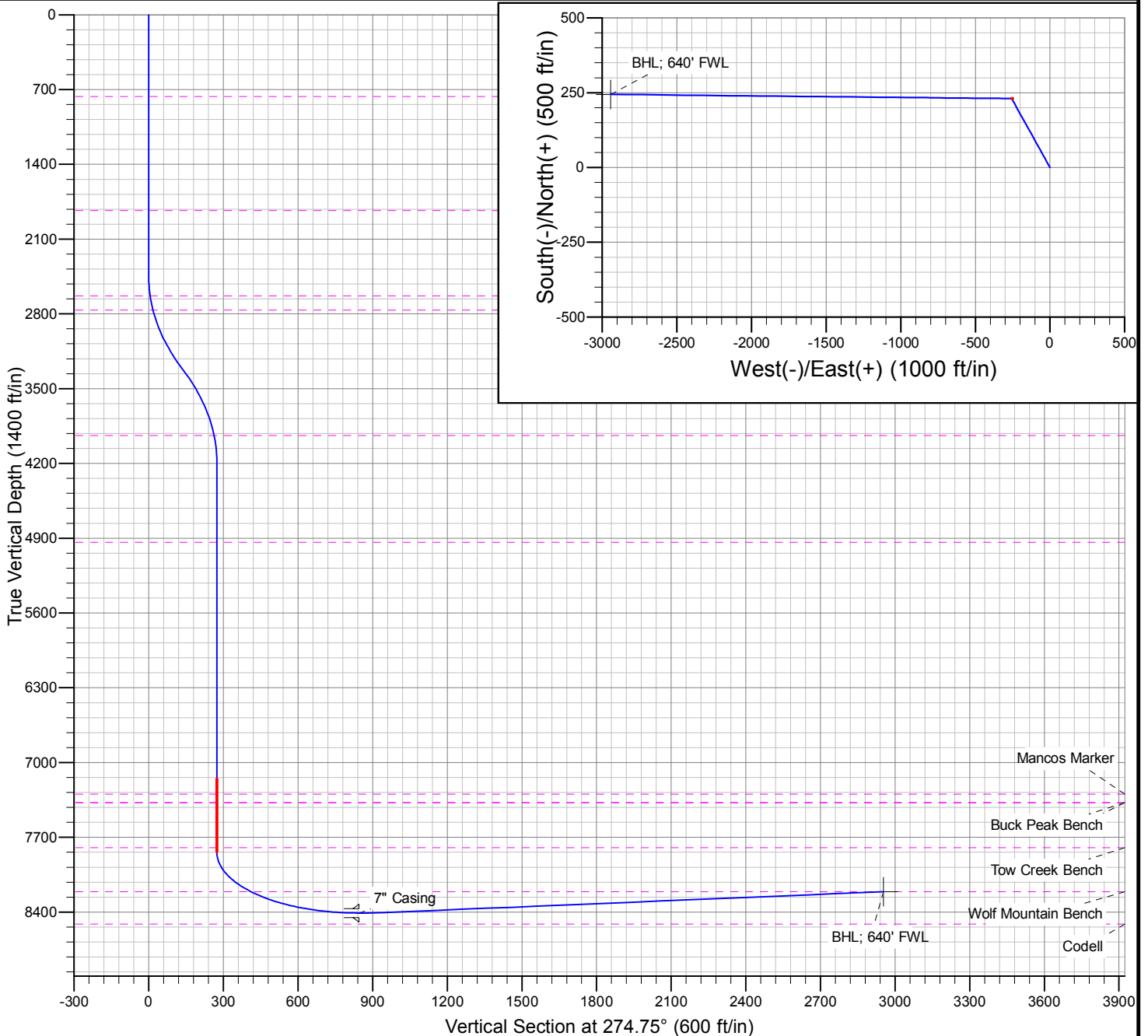


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	7200.00	0.00	0.00	7155.00	230.59	-255.75	0.00	0.00	273.96	
2	7882.04	0.00	0.00	7837.04	230.59	-255.75	0.00	0.00	273.96	
3	8782.04	90.00	270.30	8410.00	233.58	-828.70	10.00	270.30	845.19	
4	8882.04	95.53	270.30	8405.18	234.10	-928.54	5.53	0.00	944.74	
5	10906.47	95.53	270.30	8210.09	244.61	-2943.51	0.00	0.00	2953.66	BHL; 640' FWL



Azimuths to True North
 Magnetic North: 10.10°
 Magnetic Field
 Strength: 52740.9snT
 Dip Angle: 66.62°
 Date: 7/26/2012
 Model: IGRF2010





Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Ence 1H
Company:	PeakView Energy Company	TVD Reference:	WELL @ 6226.20ft (RKB @ 20')
Project:	Moffat County, CO	MD Reference:	WELL @ 6226.20ft (RKB @ 20')
Site:	Sec 3 T6N R90W	North Reference:	True
Well:	Ence 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Horizontal #1		
Design:	H PLAN #3 (LATERAL)		

Project	Moffat County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Well	Ence 1H					
Well Position	+N/-S	0.00 ft	Northing:	1,431,283.92 ft	Latitude:	40.500343°N
	+E/-W	0.00 ft	Easting:	2,448,594.70 ft	Longitude:	107.482956°W
Position Uncertainty		0.00 ft	Wellhead Elevation:	6,226.20 ft	Ground Level:	6,206.20 ft

Wellbore	Horizontal #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/26/2012	10.10	66.62	52,741

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
7,200.00	0.00	0.00	7,155.00	230.59	-255.75	0.00	0.00	0.00	0.00	
7,882.05	0.00	0.00	7,837.04	230.59	-255.75	0.00	0.00	0.00	0.00	
8,782.05	90.00	270.30	8,410.00	233.58	-828.70	10.00	10.00	0.00	270.30	
8,882.05	95.53	270.30	8,405.18	234.10	-928.54	5.53	5.53	0.00	0.00	
10,906.47	95.53	270.30	8,210.09	244.61	-2,943.51	0.00	0.00	0.00	0.00	BHL; 640' FWL



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Ence 1H
Company:	PeakView Energy Company	TVD Reference:	WELL @ 6226.20ft (RKB @ 20')
Project:	Moffat County, CO	MD Reference:	WELL @ 6226.20ft (RKB @ 20')
Site:	Sec 3 T6N R90W	North Reference:	True
Well:	Ence 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Horizontal #1		
Design:	H PLAN #3 (LATERAL)		

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)	Turn Rate (°/100ft)	
7,200.00	0.00	0.00	7,155.00	230.59	-255.75	273.96	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,255.00	230.59	-255.75	273.96	0.00	0.00	0.00	
7,341.01	0.00	0.00	7,296.00	230.59	-255.75	273.96	0.00	0.00	0.00	
Mancos Marker										
7,400.00	0.00	0.00	7,355.00	230.59	-255.75	273.96	0.00	0.00	0.00	
7,421.01	0.00	0.00	7,376.00	230.59	-255.75	273.96	0.00	0.00	0.00	
Niobrara - Buck Peak Bench										
7,500.00	0.00	0.00	7,455.00	230.59	-255.75	273.96	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,555.00	230.59	-255.75	273.96	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,655.00	230.59	-255.75	273.96	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,755.00	230.59	-255.75	273.96	0.00	0.00	0.00	
7,843.01	0.00	0.00	7,798.00	230.59	-255.75	273.96	0.00	0.00	0.00	
Tow Creek Bench										
7,882.05	0.00	0.00	7,837.04	230.59	-255.75	273.96	0.00	0.00	0.00	
7,900.00	1.80	270.30	7,854.99	230.59	-256.03	274.24	10.00	10.00	0.00	
8,000.00	11.80	270.30	7,954.16	230.66	-267.84	286.03	10.00	10.00	0.00	
8,100.00	21.80	270.30	8,049.78	230.81	-296.70	314.80	10.00	10.00	0.00	
8,200.00	31.80	270.30	8,138.93	231.04	-341.73	359.69	10.00	10.00	0.00	
8,288.17	40.61	270.30	8,210.00	231.31	-393.75	411.56	10.00	10.00	0.00	
Wolf Mountain Bench										
8,300.00	41.80	270.30	8,218.90	231.35	-401.55	419.33	10.00	10.00	0.00	
8,400.00	51.80	270.30	8,287.28	231.73	-474.34	491.91	10.00	10.00	0.00	
8,500.00	61.80	270.30	8,341.97	232.17	-557.91	575.22	10.00	10.00	0.00	
8,600.00	71.80	270.30	8,381.32	232.65	-649.70	666.74	10.00	10.00	0.00	
8,700.00	81.80	270.30	8,404.13	233.15	-746.93	763.68	10.00	10.00	0.00	
8,782.05	90.00	270.30	8,410.00	233.58	-828.70	845.19	10.00	10.00	0.00	
8,782.05	90.00	270.30	8,410.00	233.58	-828.70	845.20	0.00	0.00	0.00	
7" Casing										
8,800.00	90.99	270.30	8,409.84	233.67	-846.65	863.09	5.53	5.53	0.00	
8,882.05	95.53	270.30	8,405.18	234.10	-928.54	944.74	5.53	5.53	0.00	
8,900.00	95.53	270.30	8,403.45	234.19	-946.41	962.55	0.00	0.00	0.00	
9,000.00	95.53	270.30	8,393.81	234.71	-1,045.94	1,061.79	0.00	0.00	0.00	
9,100.00	95.53	270.30	8,384.17	235.23	-1,145.48	1,161.02	0.00	0.00	0.00	
9,200.00	95.53	270.30	8,374.54	235.75	-1,245.01	1,260.26	0.00	0.00	0.00	
9,300.00	95.53	270.30	8,364.90	236.27	-1,344.54	1,359.49	0.00	0.00	0.00	
9,400.00	95.53	270.30	8,355.26	236.79	-1,444.08	1,458.73	0.00	0.00	0.00	
9,500.00	95.53	270.30	8,345.63	237.31	-1,543.61	1,557.96	0.00	0.00	0.00	
9,600.00	95.53	270.30	8,335.99	237.83	-1,643.14	1,657.19	0.00	0.00	0.00	
9,700.00	95.53	270.30	8,326.35	238.35	-1,742.68	1,756.43	0.00	0.00	0.00	
9,800.00	95.53	270.30	8,316.72	238.86	-1,842.21	1,855.66	0.00	0.00	0.00	
9,900.00	95.53	270.30	8,307.08	239.38	-1,941.74	1,954.90	0.00	0.00	0.00	
10,000.00	95.53	270.30	8,297.44	239.90	-2,041.28	2,054.13	0.00	0.00	0.00	
10,100.00	95.53	270.30	8,287.81	240.42	-2,140.81	2,153.37	0.00	0.00	0.00	
10,200.00	95.53	270.30	8,278.17	240.94	-2,240.34	2,252.60	0.00	0.00	0.00	
10,300.00	95.53	270.30	8,268.53	241.46	-2,339.88	2,351.84	0.00	0.00	0.00	
10,400.00	95.53	270.30	8,258.90	241.98	-2,439.41	2,451.07	0.00	0.00	0.00	
10,500.00	95.53	270.30	8,249.26	242.50	-2,538.94	2,550.30	0.00	0.00	0.00	
10,600.00	95.53	270.30	8,239.62	243.02	-2,638.48	2,649.54	0.00	0.00	0.00	
10,700.00	95.53	270.30	8,229.99	243.54	-2,738.01	2,748.77	0.00	0.00	0.00	
10,800.00	95.53	270.30	8,220.35	244.05	-2,837.54	2,848.01	0.00	0.00	0.00	
10,900.00	95.53	270.30	8,210.71	244.57	-2,937.08	2,947.24	0.00	0.00	0.00	
10,906.47	95.53	270.30	8,210.09	244.61	-2,943.51	2,953.66	0.00	0.00	0.00	
BHL; 640' FWL										



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Project:	Moffat County, CO	MD Reference:	WELL @ 6226.20ft (RKB @ 20')
Site:	Sec 3 T6N R90W	North Reference:	True
Well:	Ence 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Horizontal #1		
Design:	H PLAN #3 (LATERAL)		

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
BHL; 640' FWL - hit/miss target - Shape	0.00	358.71	8,210.00	244.25	-2,943.54	1,431,593.93	2,445,657.36	40.501013°N	107.493540°W
- plan misses target center by 0.37ft at 10906.47ft MD (8210.09 TVD, 244.61 N, -2943.51 E)									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
8,782.05	8,410.00	7" Casing	7.000	8.500

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,983.01	4,938.00	Maraposa		0.00	
7,341.01	7,296.00	Mancos Marker		0.00	
7,421.01	7,376.00	Niobrara		0.00	
7,421.01	7,376.00	Buck Peak Bench		0.00	
7,843.01	7,798.00	Tow Creek Bench		0.00	
8,288.17	8,210.00	Wolf Mountain Bench		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,200.00	7,155.00	230.59	-255.75	Start 682.04 hold at 7200.00 MD
7,882.05	7,837.04	230.59	-255.75	Start Build 10.00
8,782.05	8,410.00	233.58	-828.70	Start Build 5.53
8,882.05	8,405.18	234.10	-928.54	Start 2024.42 hold at 8882.04 MD
10,906.47	8,210.09	244.61	-2,943.51	TD at 10906.47