

Schematic - Current
Well Name: HMU Federal 16-16C2 (J16W)

API # 05045204080000	Well Type Gas	Business Unit Southern Rockies	SBU South Piceance	Area Mamm Creek	Pad J16W	County/Parish GARFIELD	State CO	Field Name Mamm Creek
Operator Encana Oil & Gas (USA), Inc		Well Status Cased Gas Well	Orig KB El. 7,670.60	Gr Elev (ft) 7,647.64	KB-Grd (ft) 22.97	Total Depth (All) (ftKB) Original Hole - Initial Migration - 10,085.0	Total Depth (TVD) (ftKB) Original Hole - Initial Migration - 9,814.6	PBTD (All) (ftKB) Original Hole - Initial

Most Recent Job

Job Category Completion	Primary Job Type Original Completion	Secondary Job Type D&C	Start Date 09/11/2012	End Date 09/12/2012
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TD: 10,085.0

Directional - Original Hole - Initial Migration, 12/04/2012 4:34:00 PM

MD (ftKB)	TVD (ftKB)	Incl (°)	DLS	Vertical schematic (actual)
-4.9	-4.9	1.1	DLS (°/... 0 — 4	
-4.6	-4.6			
0.0	0.0	1.1		
20.0	20.0			
21.0	21.0	1.1		2-1; Casing Joints; 9 5/8; 8.921; -4.5-22.5; 27.00
21.7	21.7			1-2; Tubing Hanger; 4 1/16; 1.940; 20.0-20.8; 0.84
22.6	22.6	1.1		1-3; Nipple; 2.59; 1.995; 20.8-21.5; 0.67
27.6	27.6			2-2; Casing Joints; 9 5/8; 8.921; 22.5-27.5; 5.00
71.9	71.8	1.1		1-1; Casing Joints; 16; 0.0-72.0; 72.00
1,564.0	1,529.7			2-3; Casing Joints; 9 5/8; 8.921; 27.5-1,564.0; 1,536.46
1,565.6	1,531.2	17.9		2-4; Float Collar; 9 5/8; 1,564.0-1,565.5; 1.50
1,609.6	1,573.1			2-5; Casing Joints; 9 5/8; 8.921; 1,565.5-1,609.5; 44.00
1,610.9	1,574.3	17.9		2-6; Float Shoe; 9 5/8; 1,609.5-1,611.0; 1.50
1,627.0	1,589.6			3-1; Casing Joints; 4 1/2; 4.000; -5.0-7,666.5; 7,671.54
4,919.9	4,721.4	18.4		1-4; Tubing; 2 3/8; 1.995; 21.5-9,097.6; 9,076.06
6,291.0	6,030.0			
6,878.0	6,609.4	5.4		
7,666.7	7,397.2			
7,688.6	7,419.2	2.0		3-2; Marker Joint; 4 1/2; 4.000; 7,666.5-7,688.5; 21.97
7,889.1	7,619.6			
7,894.0	7,624.5	0.3		Perf; 7,894.0-8,135.0; 08/01/2012
8,134.8	7,865.3			
8,160.1	7,890.6	1.2		3-3; Casing Joints; 4 1/2; 4.000; 7,688.5-8,637.4; 948.89
8,358.9	8,089.3			Perf; 8,160.0-8,359.0; 07/30/2012
8,388.1	8,118.5	1.4		
8,615.2	8,345.5			Perf; 8,388.0-8,615.0; 07/28/2012
8,637.5	8,367.8	0.3		
8,658.1	8,388.5			3-4; Marker Joint; 4 1/2; 4.000; 8,637.4-8,659.3; 21.94
8,659.4	8,389.8	0.2		
8,878.9	8,609.3			Perf; 8,658.0-8,879.0; 07/27/2012
8,919.9	8,650.3	0.2		
9,086.9	8,817.3			Perf; 8,920.0-9,157.0; 07/26/2012
9,097.4	8,827.8	0.6		
9,098.4	8,828.8			1-5; Profile Nipple; 3 1/16; 1.810; 9,097.6-9,098.5; 0.97
9,131.6	8,861.9	0.5		1-6; Tubing; 2 3/8; 1.995; 9,098.5-9,131.6; 33.06
9,132.5	8,862.9			1-7; Wireline Guide; 3 1/8; 1.995; 9,131.6-9,132.5; 0.92
9,157.2	8,887.5	0.5		
9,211.9	8,942.3			3-5; Casing Joints; 4 1/2; 4.000; 8,659.3-9,997.6; 1,338.27
9,451.1	9,181.4	1.7		Perf; 9,212.0-9,451.0; 07/25/2012
9,520.0	9,250.3			
9,793.0	9,522.9	2.9		Perf; 9,520.0-9,793.0; 07/04/2012
9,882.9	9,612.7			
9,978.0	9,707.7	2.3		
9,980.0	9,709.7			
9,997.7	9,727.4	2.3		3-6; Float Collar; 4 1/2; 4.000; 9,997.6-9,998.6; 1.00
9,998.7	9,728.4			3-7; Casing Joints; 4 1/2; 4.000; 9,998.6-10,041.8; 43.16
10,041.7	9,771.3	2.3		
10,042.7	9,772.3			3-8; Float Shoe; 4 1/2; 4.000; 10,041.8-10,042.8; 1.00
10,085.0	9,814.6	2.3		