

Piceance Energy, LLC
Gunderson 29-09M
Slot A-3
Patterson 306 (22-ft KB)

API #: 05-077-09763-00
SE/4 NE/4 S29/T9S/R93W/6th PM
Mesa County, CO
Date of diagram : 6/20/2015

Vertical datum

----- 7553' RKB Elevation

----- 7531' Pad Elevation

16" OD Conductor 82 -ft MD RKB
(in 26" hole, grouted to ground level)

8-5/8" Shoe 1566.92 -ft MD RKB
11" Hole 1577 -ft MD RKB

Formation	Prognosis
'G' Sand	2776 -ft MD RKB
Williams Fork	4715 -ft MD RKB
Top of Gas	5944 -ft MD RKB
Cameo	7044 -ft MD RKB
Base Cameo Coal	7702 -ft MD RKB
Rollins	7744 -ft MD RKB

Top of 20'
Marker Joint 6075 -ft MD RKB

Top of 20'
Marker Joint 6981 -ft MD RKB

4-1/2" Float Collar (PBTD) 7843 -ft MD RKB
4-1/2" Float Shoe 7934 -ft MD RKB
7-7/8" Hole TD 7944 -ft MD RKB

Cementing Details

8-5/8" 24# J55 STC Surface Csg	Lead	Tail
Density (ppg)	12.3	12.8
Volume (sx)	192	114
Yield (cf/sx)	2.45	2.17
Top (ft RKB)	Surface	1000
Bottom (ft RKB)	1000	1566.92
Returns (full or partial)	Full	Full

4-1/2" 11.6# I80 LTC Production Csg	Lead	Tail	Displacement
Density (ppg)	12.8	13.3	8.3 ppg
Volume (sx)	916	413	bbls
Yield (cf/sx)	1.75	1.89	N/A
Est Top (ft RKB)	1022	5744	N/A
Est Bottom (ft RKB)	5744	7934	N/A
Returns (full or partial)	Full	Full	Full

Other Remarks : 16 bbls of cement back on Surface.
25 bbls of cement back on Production.