

Piceance Energy, LLC
Piceance Federal 28-20E
Slot A-10
Patterson 306 (22-ft KB)

API # : 05-077-10256-00
NE/4 SW/4 S28/T9S/R93W/6th PM
Mesa County, CO
Date of diagram : 10/20/2015

Vertical datum

----- 7701' RKB Elevation

----- 7679' Pad Elevation

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

8-5/8" Shoe 1646 -ft MD RKB
11" Hole 1656 -ft MD RKB

<u>Formation</u>	<u>Prognosis</u>
'G' Sand	3192 -ft MD RKB
Williams Fork	5333 -ft MD RKB
Top of Gas	6569 -ft MD RKB
Cameo	7669 -ft MD RKB
Base Cameo Coal	8327 -ft MD RKB
Rollins	8369 -ft MD RKB

Top of 20'
Marker Joint 6759 -ft MD RKB

Top of 20'
Marker Joint 7635 -ft MD RKB

4-1/2" Float Collar (PBTD) 8446 -ft MD RKB
4-1/2" Float Shoe 8530 -ft MD RKB
7-7/8" Hole TD 8540 -ft MD RKB

Cementing details

8-5/8" 24# J55 STC Surface Csg			
Density (ppg)	Lead	Tail	
Volume (sx)	12.3	12.8	
Yield (cf/sx)	192	131	
Top (ft RKB)	2.45	2.17	
Bottom (ft RKB)	Surface	1000	
Returns (full or partial)	1000	1646	
	Full	Full	

4-1/2" 11.6# I80 LTC Production Csg			
Density (ppg)	Lead	Tail	
Volume (sx)	12.7	13.5	Displacement
Yield (cf/sx)	1084	446	8.3 ppg
Est Top (ft RKB)	1.64	1.75	131 bbbls
Est Bottom (ft RKB)	1022	6369	N/A
Returns (full or partial)	6369	8530	N/A
	Full	Full	N/A
			Partial

Other Remarks : Surface = 30 bbbls of cmt to surface full returns
Production = Lost returns 40 bbbls into displacement. Partial returns
back 90 bbbls into displacement. 0 bbbls spacer to surface