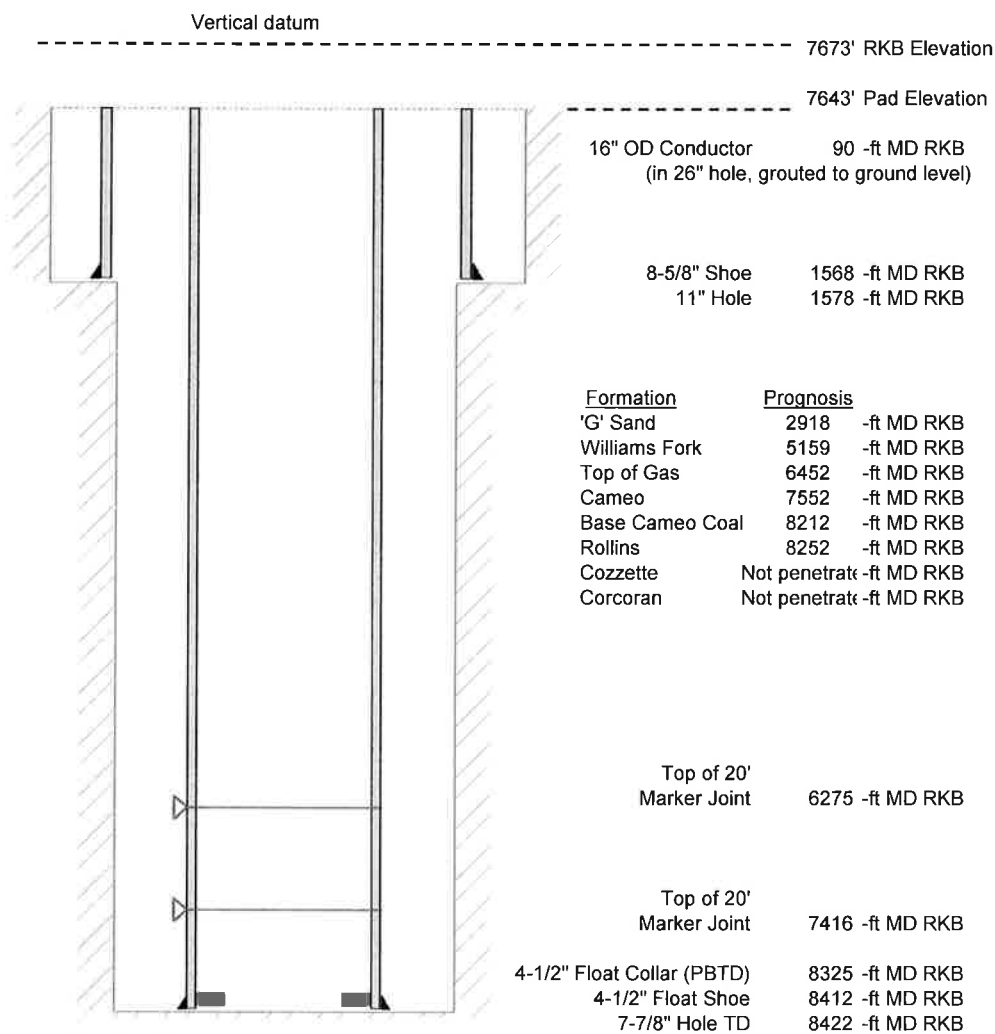


Laramie Energy, LLC
 Bruton Federal 30-19W
 Slot A-3
 H&P 522 (30-ft KB)

API #: 05-077-10469
 NW/4 SE/4 S30/T9S/R93W/6th PM
 Mesa County, CO
 Date of diagram: 1/26/2018



Cementing details

8-5/8" 24# Surface Csg	Lead	Tail
Density (ppg)	12.3	12.8
Volume (sx)	197	109
Yield (cf/sx)	2.45	2.18
Top (ft RKB)	0	1030
Bottom (ft RKB)	1030	1568
Returns (full or partial)	Full	Full

4-1/2" 11.6# Prod Csg	Lead	Tail
Density (ppg)	12.5	13.3
Volume (sx)	918	461
Yield (cf/sx)	1.94	1.73
Est Top (ft RKB)	0	
Est Bottom (ft RKB)	6252	8412
Returns (full or partial)	Partial	Partial

Displacement
8.3 ppg
bbls

Other Remarks: 38 bbls cement to surface on surface job. No spacer to surface, partial returns at start of displacement.