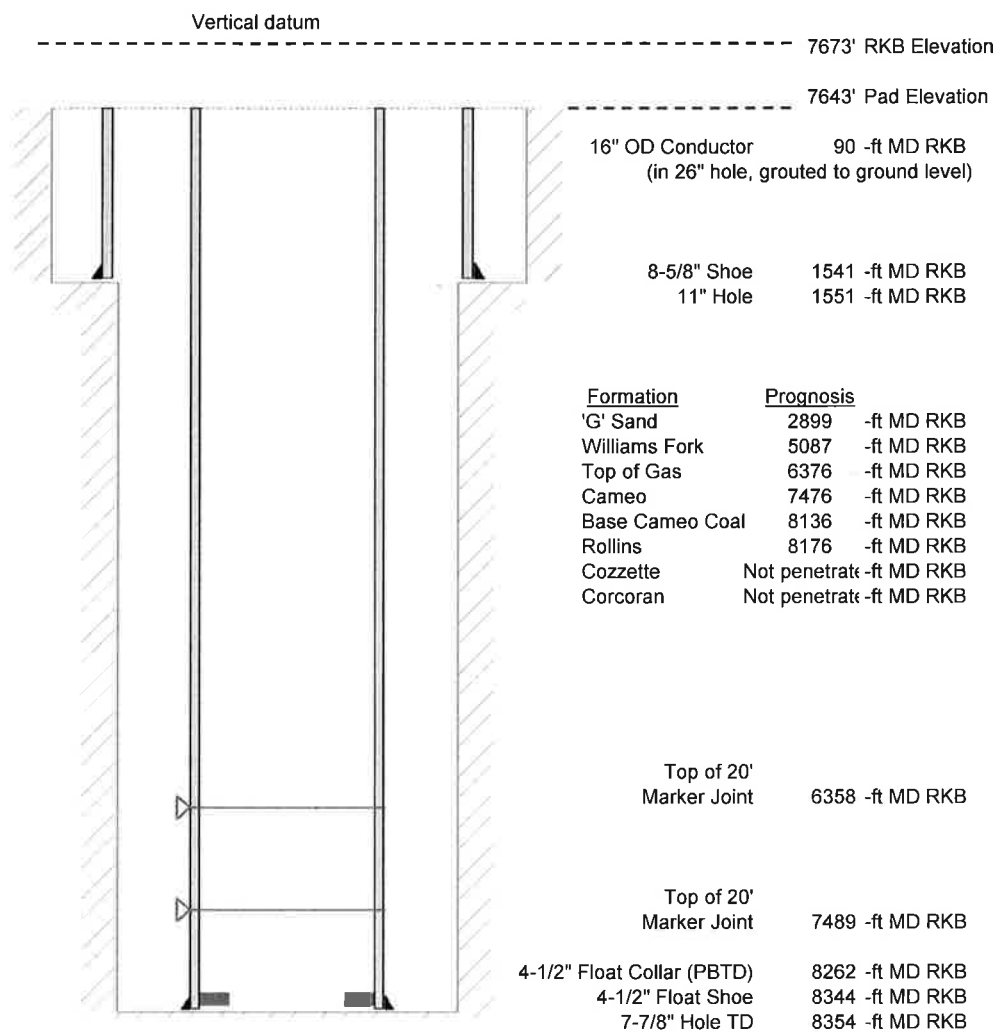


Laramie Energy, LLC  
 Bruton Federal 30-18W  
 Slot A-4  
 H&P 522 (30-ft KB)

API #: 05-077-10481  
 NW/4 SE/4 S30/T9S/R93W/6th PM  
 Mesa County, CO  
 Date of diagram: 1/13/2018



#### 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	694
Bottom (ft RKB)	694	1541
Returns (full or partial)	Full	Full

4-1/2" 11.6# Prod Csg	Lead	Tail
Density (ppg)	12.5	13.3
Volume (sx)	906	461
Yield (cf/sx)	1.94	1.73
Est Top (ft RKB)	46	6000
Est Bottom (ft RKB)	6000	8344
Returns (full or partial)	Full	Full

Displacement
8.3 ppg
128 bbls

Other Remarks: 35 bbls cement back on surface job. 38 bbls spacer back on production job.