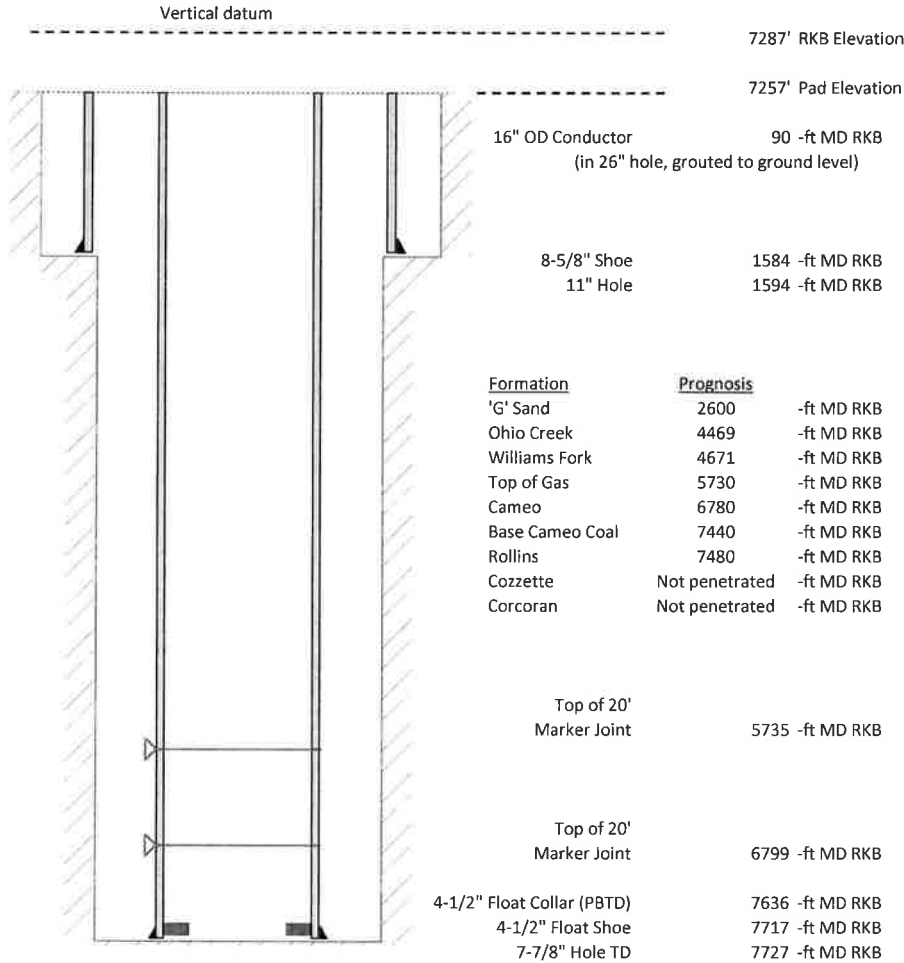


Laramie Energy, LLC
BCU 0993-21-04W
Slot B-4
H&P 522 (30-ft KB)

API #: 05-077-10511-00
 SW/4 NW/4 S13/T9S/R94W/6th PM
 Mesa County, CO
 Date of diagram: 10/13/2018



Cementing details

8-5/8" 24# Surface Csg	Lead	Tail
Density (ppg)	12.3	12.8
Volume (sx)	172	95
Yield (cf/sx)	2.45	2.18
Top (ft RKB)	0	1030
Bottom (ft RKB)	1030	1584
Returns (full or partial)	Full	Full

4-1/2" 11.6# Prod Csg	Lead	Tail
Density (ppg)	12.5	13.3
Volume (sx)	671	366
Yield (cf/sx)	1.94	1.74
Est Top (ft RKB)	650	5250
Est Bottom (ft RKB)	5250	7717
Returns (full or partial)	Full	Full

Displacement
8.3 ppg
118.4 bbls

Other Remarks: 13 bbls cement to surface on surface job. 18 bbls spacer back on production job.