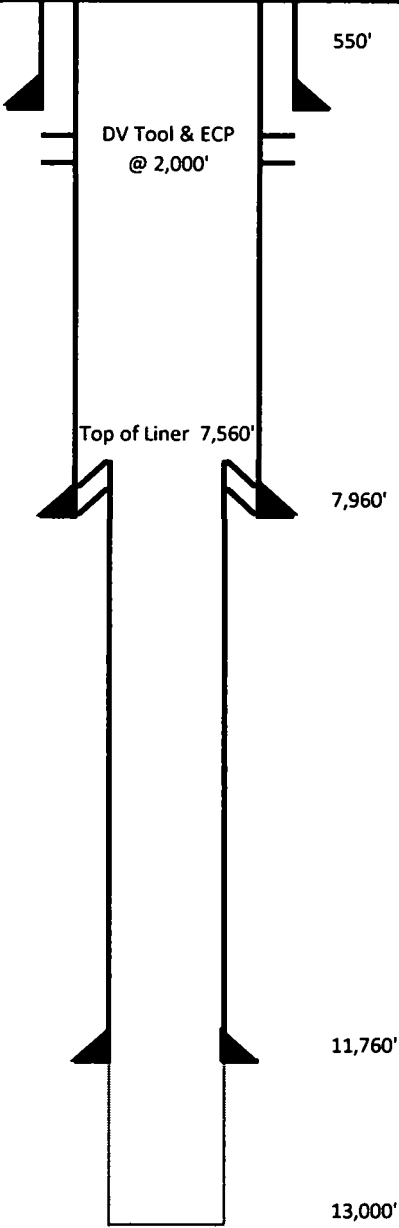


Cottonwood Fee SWD 1
API # 30-015-44600

TVD ft-RKB	Geological Tops	Wellbore Sketch	Hole Size	Casing	Drilling Fluids	Cement	Potential Mineral Bearing Formations
2,000'			17-1/2"	Surface: 13-3/8" 54.5# J55 BTC	FW Spud Mud 8.5 - 9.2 ppg 38 - 40 Viscosity 8 - 10 PV 8 - 10 YP NC API Filtrate	Class C 14.8 ppg 1.34 cuft/sk TOC Surface 570 Sacks	
4,000'			12-1/4"	Intermediate: 9-5/8" 43.5# L80HC BTC	550' - 1,600': Saturated Brine 10.0 - 10.2 ppg 28 - 29 Viscosity PV, YP - NA 1,600' - 8,500': Diesel/Brine Emulsion 8.9 - 9.3 ppg 40 - 45 Viscosity 14 - 21 PV 11 - 20 YP	Stage 1 Lead - Class C 12.7 ppg 2.19 cuft/sk TOC 1,600' 1,145 Sks Tail - Class C 14.8 ppg 1.38 cuft/sk TOC 8,000' 145 Sks Stage 2 Lead - Class C 12.9 ppg 2.19 cuft/sk TOC Surface 375 Sks Tail - Class C 14.8 ppg 1.33 cuft/sk TOC 1,300' 145 Sks	
6,000'			8-1/2"	Liner: 7" 29# P110 BTC	Saturated Brine 10.0 - 12.0 ppg 36 - 38 Viscosity 10 - 18 PV 8 - 12 YP 6 - 8 API Filtrate	Tail - Class H 14.5 ppg 1.23 cuft/sk TOC - 7,460' 480 Sks	
8,000'			6-1/8"		8.9 - 9.2 ppg 29 - 30 Viscosity 3 PV 3 YP NC API Filtrate		
9,000'							
10,000'							
11,000'							
12,000'							
13,000'							

**NM OIL CONSERVATION
ARTESIA DISTRICT**
JUL 20 2018
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