



Proposed Frac Stages/Plugs

UHL: 11,073' MD

Proppant Totals/Stage	
90,000#	100 Mesh Sand
335,000#	40/70 White Sand

SHL: 310' FSL & 1285' FEL of Sec 22, T 26S, R 29E
 BHL: 230' FNL & 330' FEL of Sec 22, T 26S, R 29E
 KB elev = 2,907'
 GL elev = 2,882'
 KB-CL: 25'
 SPUD: 6/10/16
 TD: 7/3/16

17-1/2" Hole
 Surface Casing: 13 3/8" 54.5# J-55 STC: 0' - 368'
 CMT: Lead: 300 sks @ 14.4 ppg, Tail 800 sks @ 14.8 ppg
 bumped plug @ 950 psi, floats held, 1 bbl back, 51 bbbls to surf

12-1/4" Hole
 INT CSG: 9-5/8" 40# HCL-80 LTC: 0' - 3,154'
 CMT: Lead: 790 sks @ 12.9 ppg, Tail 200 sks @ 14.8 ppg
 bumped plug @ 1,550 psi, floats held, 60 bbl back to surface.

8-3/4" Hole
 DEEP INT CSG: 7" 29# P110-HC BTC: 0'-11,027'
 CMT: 600 sks @ 12.9 ppg, Displaced cement and SD SIW per
 Bumped plug, floats held.

API Permit 5760

Stage	Depth Range (MD)	CFP Volume
Stage 20	11,522'-11,524', 11,554'-11,556', 11,586'-11,588', 11,628'-11,630', 11,660'-11,662', 11,692'-11,694'	10K CFP @ 11,709'
Stage 19	11,734'-11,736', 11,766'-11,768', 11,798'-11,800', 11,830'-11,832', 11,862'-11,864', 11,894'-11,896'	10K CFP @ 11,921'
Stage 18	11,946'-11,948', 11,978'-11,980', 12,010'-12,012', 12,042'-12,044', 12,074'-12,076', 12,106'-12,108'	10K CFP @ 12,133'
Stage 17	12,158'-12,160', 12,190'-12,192', 12,222'-12,224', 12,254'-12,256', 12,286'-12,288', 12,318'-12,320'	10K CFP @ 12,345'
Stage 16	12,370'-12,372', 12,402'-12,404', 12,434'-12,436', 12,466'-12,468', 12,498'-12,500', 12,530'-12,532'	10K CFP @ 12,557'
Stage 15	12,582'-12,584', 12,614'-12,616', 12,646'-12,648', 12,678'-12,680', 12,710'-12,712', 12,742'-12,744'	10K CFP @ 12,769'
Stage 14	12,794'-12,796', 12,826'-12,828', 12,858'-12,860', 12,890'-12,892', 12,922'-12,924', 12,954'-12,956'	10K CFP @ 12,981'
Stage 13	13,006'-13,008', 13,038'-13,040', 13,070'-13,072', 13,102'-13,104', 13,134'-13,136', 13,166'-13,168'	10K CFP @ 13,193'
Stage 12	13,218'-13,220', 13,250'-13,252', 13,282'-13,284', 13,314'-13,316', 13,346'-13,348', 13,378'-13,380'	10K CFP @ 13,405'
Stage 11	13,430'-13,432', 13,462'-13,464', 13,494'-13,496', 13,526'-13,528', 13,558'-13,560', 13,590'-13,592'	10K CFP @ 13,617'
Stage 10	13,642'-13,644', 13,674'-13,676', 13,706'-13,708', 13,738'-13,740', 13,770'-13,772', 13,802'-13,804'	10K CFP @ 13,829'
Stage 9	13,854'-13,856', 13,886'-13,888', 13,918'-13,920', 13,950'-13,952', 13,982'-13,984', 14,014'-14,016'	10K CFP @ 14,041'
Stage 8	14,066'-14,068', 14,098'-14,100', 14,130'-14,132', 14,162'-14,164', 14,194'-14,196', 14,226'-14,228'	10K CFP @ 14,253'
Stage 7	14,278'-14,280', 14,310'-14,312', 14,342'-14,344', 14,374'-14,376', 14,406'-14,408', 14,438'-14,440'	10K CFP @ 14,465'
Stage 6	14,490'-14,492', 14,522'-14,524', 14,554'-14,556', 14,586'-14,588', 14,618'-14,620', 14,650'-14,652'	10K CFP @ 14,677'
Stage 5	14,702'-14,704', 14,734'-14,736', 14,766'-14,768', 14,798'-14,800', 14,830'-14,832', 14,862'-14,864'	10K CFP @ 14,889'
Stage 4	14,914'-14,916', 14,946'-14,948', 14,978'-14,980', 15,010'-15,012', 15,042'-15,044', 15,074'-15,076'	10K CFP @ 15,101'
Stage 3	15,126'-15,128', 15,158'-15,160', 15,190'-15,192', 15,222'-15,224', 15,254'-15,256', 15,286'-15,288'	10K CFP @ 15,313'
Stage 2	15,338'-15,340', 15,370'-15,372', 15,402'-15,404', 15,434'-15,436', 15,466'-15,468', 15,498'-15,500'	10K CFP @ 15,525'
Stage 1	15,550'-15,552', 15,582'-15,584', 15,614'-15,616', 15,646'-15,648', 15,678'-15,680', 15,710'-15,712'	

TD = 15,840' MD
 PBTD = 15,753' MD (FC, SLM)
 Avg TVD Lat = 11,031'
 Lat. Length = 4,190'
 BHT 221°F

TVD @ Heel = 11,029'
 TVD @ Toe = 11,034'

6" Hole
 Prod Liner: 4 1/2" 13.5# P-110 CDC-HTQ: 10,324' - 15,840'
 CMT: Pump 400 sks @ 14.5 ppg
 Bump plug 2400 psi, floats held full returns.
 TOC ~ 1,950' from RBL