

U. S. A. #2 FRTC
Recompletion Procedure
M 24 32 13

1. Comply to all NMOCD, BLM, & MOI, rules & regulations. MOL and RU completion rig. NU 6" 900 series BOP with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line.
2. RU wireline. Run 5-1/2" gauge ring to 1850'. Run top drillable BP on wireline & set @ 1850'.
3. Run CBL from 1850'-1000'. Apply 1000 psi to csg if necessary. Pressure test csg to 2500 psi for 30 min.
4. Perf Fruitland Coal using 4" HSC guns with 23 gram GOEX HSC XXIII (or equivalent) charges. Shoot 4 SPF using correlation from 9/15/80 GRN Log. Perf 1845'-15', 1694'-84', 1625'-22', 1608'-03'. Total of 192 holes.
5. Fill 9 - 400 bbl. frac tanks with 2% KCL water. Filter all water to one micron. Usable gel water required for frac is 2892 bbls.
6. TIH with 5-1/2" Baker SAP tool with a 4' spacer on new 2-3/8" tbq. Wash perfs using 10 gallons of 15% HCL acid mixed with 5% xylene mutual solvent per foot of perfs and a quaternary amine-type clay stabilizer at 3 gal/1000 gal. Total acid is 480 gal. TOH.
7. Fracture treat Fruitland coal with 120,000 gals. 30# guar gel & 220,000# Arizona sand. Pump at 60 BPM. Monitor bottomhole and surface treating pressures, rate, & sand concentration, with computer van. All sand to be tagged with 0.4 mCi/1000# Ir-192 tracer. Max. pressure is 2500 psi and estimated treating pressure is 2000 psi. Treat per the following schedule:

<u>Stage</u>	<u>Gel Vol.</u> <u>(Gals.)</u>	<u>Sand Vol.</u> <u>(lbs.)</u>	<u>Sand</u> <u>Mesh</u>
Pad	40,000	----	----
1.0 ppg	10,000	10,000	20/40
2.0 ppg	20,000	40,000	20/40
3.0 ppg	30,000	90,000	20/40
4.0 ppg	20,000	80,000	20/40
Flush	<u>1,490</u>	----	----
Totals	120,000	220,000#	

Treat frac fluid with the following additives per 1000 gallons:

- * 35# Guar (Base Gel)
- * 1.0 gal. Aqua-Flow (Non-ionic Surfactant)
- * 1.0# B-11 (Enzyme Breaker)
- * 1.0# B-5 (Breaker)
- * 2% KCL

Shut well in after frac for six hours in an attempt to obtain closure pressure and allow the gel to break.

8. Open well through choke manifold & monitor flow. Flow @ 20 bbl/hr, or less if sand is observed.