

Summarized Job Procedure

Well Preparation

1. Install new wellhead with a MAWP of 5000psi.
2. Run scraper tool to clean 4-1/2" production casing of any scale build-up.
3. Set a RBP and pressure test casing to 5000psi. If test is good, remove RBP.
4. Set a CIBP above the Codell and dump bail cement to abandon the producing interval.

Drilling

1. RIH with Whip Stock to predetermined depth above top of Niobrara formation.
2. MIRU wireline and RIH with orientating tools to orientate and set Whip Stock.
3. TOOH laying down production tubing.
4. RIH with mill assembly on drill string and mill 10' out of 4-1/2" casing into 'Sharron Springs'; TOOH.
5. RIH with 3-7/8" drill bit assembly and drill curve and lateral section into 'Niobrara C' bench; TOOH.

Completion

1. RIH with 2-7/8" liner and liner hanger assembly.
2. Pump cement to cover lateral and curve sections.
3. Set liner hanger inside of 4-1/2" production casing; TOOH.
4. RIH with 1-1/4" tubing and BHA to clean to drilled MD; TOOH.
5. Wireline perforate all planned intervals. Release drilling and wireline units.
6. Stimulate reservoir through the use of hydraulic fracturing techniques.

Additional Notes

Facilities

- Additional tanks and VOC burners will be added to the existing facility to account for the expected increase in production as well as to meet all Noble and COGCC standards.
- Automated safety valves will be added to meet SOP's of an ESD process.

Abbreviations

RBP – Retrievable Bridge Plug	TOOH – Trip Out of Hole
CIBP – Cast Iron Bridge Plug	BHA – Bottomhole Assembly
RIH – Run In Hole	MD – Measured Depth
SOP – Standard Operating Procedure	ESD – Emergency Shut Down

Disclaimer

All work described in this procedure is subject to change as the project is executed. The current procedure is intended to be followed but will change as the process becomes more understood.