

## Objective

Plug and abandon the Dragon Trail Unit 1004.

## Background

The DTU 1004 is a vertical well drilled August 30, 1960 and completed in the Mancos B. The well has been flow tested and swabbed. It has been determined that this well is no longer economical to operate.

## Safety

Safety meetings are to be held with all service company personnel prior to each job. Wellsite supervisor must notify contractors as to known hazards of which the contractors may be unaware. Well site supervisor must ensure that all workers are aware of their responsibilities and duties under the EH&S guidelines. All safety meetings will be recorded on the EnCana daily completion reports in Well View. Wellsite supervisor is responsible to ensure that all utility one calls and ground disturbance forms are completed and on location for safety review. All JSA, Ground disturbance forms and Utility one call paper work is to be turned in to Rangely safety department at the completion of the job.

## Regulations

All verbal notifications and approval from government regulatory agencies will be recorded on the EnCana daily report. The name of the individual contacted and the subject matter of approval or notification will be recorded.

API Number: 05-103-05148  
Spud Date: August 30, 1960  
GL Elevation: 6,947 ft  
TD: 3,330 ft MD  
PBSD:

Surface Casing: 7 5/8" OD, 24 lb/ft, H-40, set at 178 ft.  
Surface Casing Properties:  
ID: 7.025  
Drift ID: 6.972"  
Collapse: 2,040 psig  
Burst: 2,750 psig  
Capacity: 0.0479 BBL/ft

Production Casing: 5 1/2" OD, 17 lb/ft, J-55, set at 2,660 ft.  
Production Casing Properties:  
ID: 4.892"  
Drift ID: 4.767"  
Collapse: 4,910 psig  
Burst: 5,320 psig  
Joint Yield Strength: 252,000 lb  
Capacity: 0.0232 BBL/ft  
Capacity 5 1/2" casing x 7 5/8" casing: 0.0186 BBL/ft

Tubing: 1.9" OD, 2.4 lb/ft, J-55, set at 2,996 ft.  
Tubing properties:  
ID: 1.650"  
Drift ID: 1.597"  
Capacity: 0.0026 BBL/ft

**This is an open hole completion and will need to cover the production casing shoe with cement.**

## Plug & Abandon Procedure

1. Notify the Meeker BLM office at least 48 hours before plugging operations commence.
2. Hold a pre-job safety meeting. Discuss all aspects of the procedure with any involved personnel. Identify and address any safety concerns before the job begins.
3. MIRU pulling unit.
4. ND wellhead, NU BOP.
5. Load hole.
6. TOH with tubing. Tuboscope out of the hole. Lay down any bad joints.
7. TIH with tubing to production casing shoe @ 2,660'.
8. Mix and pump 25 sacks (5 BBLs) 15.8 lbs. Class G cement. **This is open hole below the production casing shoe and will need to insure the production shoe is covered and a minimum of 50 feet inside of the production casing.**
9. Short TOH with tubing. Make sure to clear cement top with tubing. WOC and tag TOC. TOC must be at least 2610" If not mix and pump additional cement as needed to achieve the desired footage.
10. TOH with tubing.
11. RIH w/ wireline. Shoot perfs @ 228', 50 ft below surface casing shoe
12. ROH w/ wireline and RD. Release wireline.
13. TIH with tubing to 228 ft.
14. Establish circulation up casing annulus. Do not pressure past 350 lbs when trying to establish circulation.
15. Pump cement until returns are seen in annulus at surface 15 to 20 sacks (about 3 to 4 BBL).
16. Spot cement to surface in production casing. 30 sacks. (about 6 BBL). This will have cement from 228', 50' below the surface casing shoe, to surface in the 5.5" X 7.625" casing annular and inside the 5.5" production casing.
17. Dig down and cut off wellhead 4 feet below ground level. Weld information plate to casing stub, take GPS readings of well information plate for regulatory agencies and back fill hole.
18. RDMO workover rig.