



Haley 41-22
API# 05-123-22947
NENE Sec 22-2N-68W
Weld County, Colorado

P&A Procedure

AFE #

October 10, 2018

Engineer:	Pam Woods
VP, Engineering & Subsurface:	Emily Miller
Completions Superintendent:	Matt Rohret
VP, DJ Operations:	John Schmidt
Attachments:	Current Wellbore Diagram Proposed Wellbore Diagram

Objective

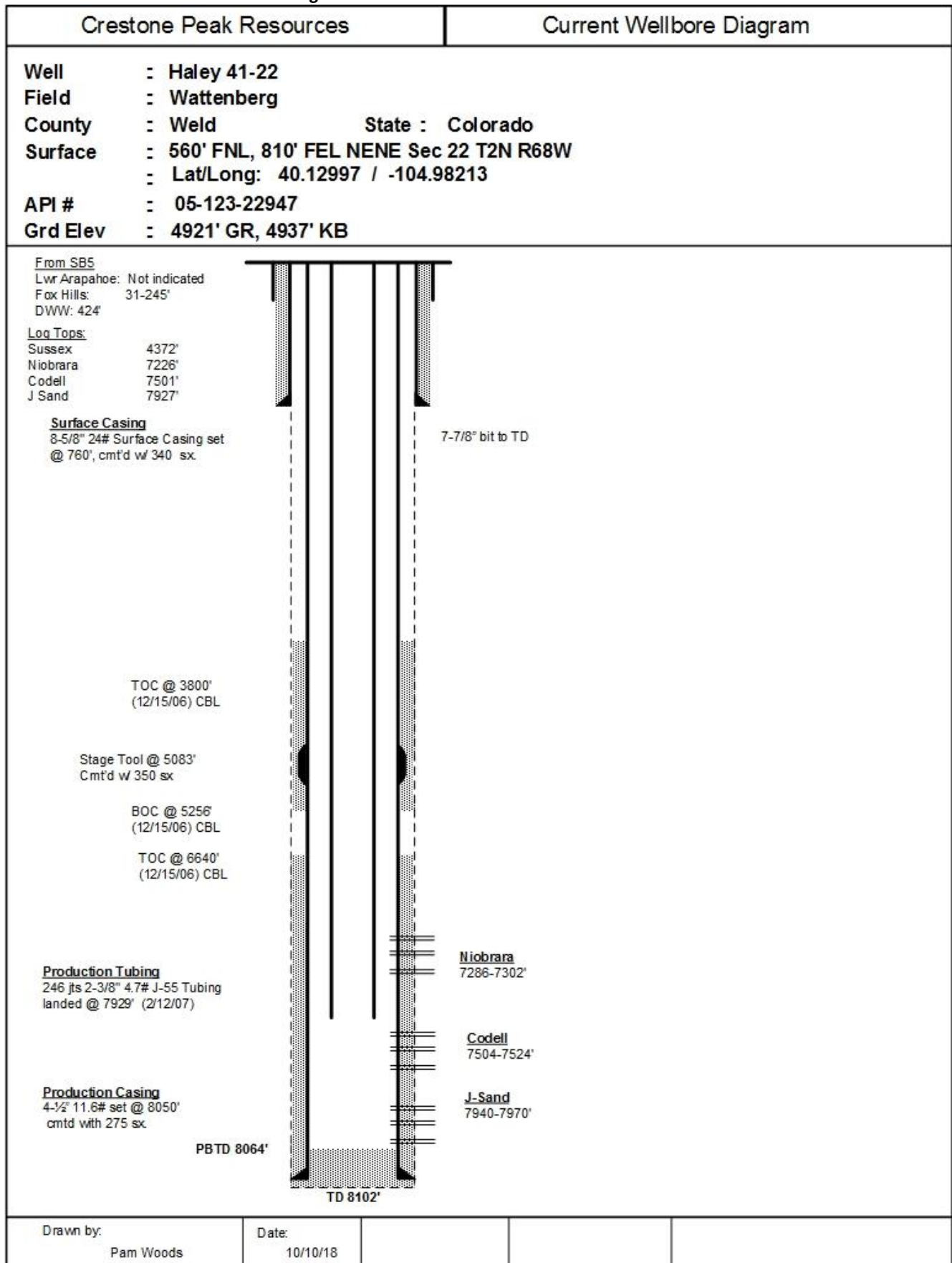
Pull tubing and production equipment. Plug and abandon well.

Procedure

1. Perform Form 17 Bradenhead Test and sample for gas, water, and oil per COGCC Regulation. (not required if Bradenhead Test has been completed within 60 days of plugging operations.)
2. Contact surveyor to acquire as-built surface location.
3. Submit electronic Form 42 to COGCC 48 hours prior to MIRU.
4. Submit form for Ground Disturbance Permit. Get One Call.
5. Notify Automation and Production Department. Production to check pressures, retrieve plunger equipment and blow down well.
6. 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.
7. MIRU workover unit. Blow down well.
8. ND wellhead. NU BOPE.
9. Un-land tubing and TOO H w/tubing.
10. MIRU wireline.
11. RIH w/ CIBP on wireline. Set CIBP at ~7,860' (within 50'-100' of the top of the J-Sand at 7,927', between collars).
12. RIH w/ wireline and dump bail 2 sx cement on top of CIBP. POOH.
13. RIH w/ CIBP on wireline. Set CIBP at ~7,140 (within 50'-100' of the top of the Niobrara at 7,226', between collars).
14. RIH w/ wireline and dump bail 2 sx cement on top of CIBP. POOH. Pressure test plug to 500 psi. If pressure test fails, contact engineering for next steps.
15. TIH w/ tubing to 5,190.
16. Pump 20 sx Class G balanced plug from 5,190 to 4,925' to cover stage tool. TOO H w/ tubing to 4545'.
17. Pump 30 sx Class G balanced plug from 4,545 to 4,150' (Sussex plug). TOO H w/ tubing.
18. ND 7 1/16" BOP and wellhead. NU 11" BOP on surface casing. RU casing tongs and pipe wrangler.
19. RIH with casing jet cutter on wireline. Cut 4 1/2" casing at 2,000. POOH with wireline. Pull casing with spear to first joint, remove casing slips. Establish circulation.
20. Pump and spot 75 sx Class G balance stub plug from 2,000' to 1,804'. Trip out of hole to 820'. Roll hole. Ensure there is no sign of hydrocarbons. If evidence is found, contact engineering. If circulation was not maintained, then the plug must be tagged after WOC.
21. Pump 75 sx Class G or Type III cement (mixed with sufficient accelerant to achieve a 4-hour set time) to spot a balanced plug across surface casing shoe. TOC will be approximately 619'. TOO H laying down all casing. Wait on cement long enough to ensure cement is set sufficiently to obtain a good tag and pressure test.
22. TIH w/ tubing and tag cement top. Per COGCC guidelines, cement top must be at 710' or higher. Report top to engineering. Pressure test plug to 250 psi. TOO H.

23. PU 8-5/8" CIBP. TIH and set @ 80'. Blow hole dry with rig compressor. TOOH. LD all tubing.
24. ND BOP. Install casing cap w/ relief valve.
25. Disconnect flowline from separator and connect to junk tank placed at the battery.
26. Flush flowline with treated fresh water then blow dry with rig compressor. Prepare flowline for removal by construction department.
27. RDMO pulling unit. Clean up location. Label all equipment to be sent to the yard with the well name.
28. MIRU top off truck, water truck, air compressor
29. RIH with plastic tubing at CIBP at 80'.
30. Reverse circulate with 20 sx of cement from 80' to surface. Top off well and annular spaces as needed.
31. RDMO top off equipment.
32. Per ground disturbance procedure/policy, excavate around wellhead. Notify Environmental Department for surface review and inspection while digging.
33. Contact EHS to scan WH with FLIR to confirm well is plugged with no gas at surface. Save FLIR photo in well file.
34. Cut off casing 4 ft below ground level.
35. Weld on metal plate and dry hole marker.
36. Remove flowlines and backfill holes.
37. Notify Integrity Department to properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment is complete.
38. Restore surface location.
39. Ensure all rig tickets, pressure charts, cement and wireline tickets are saved to the electronic well files on the shared drive for subsequent reporting.
40. Submit Form 6 Subsequent Report of Abandonment documenting the P&A to COGCC.

Attachment #1 – Current Wellbore Diagram



Attachment #2 – Proposed Plugged Wellbore Diagram

