



Haley 1

API# 05-123-09015
SENE 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

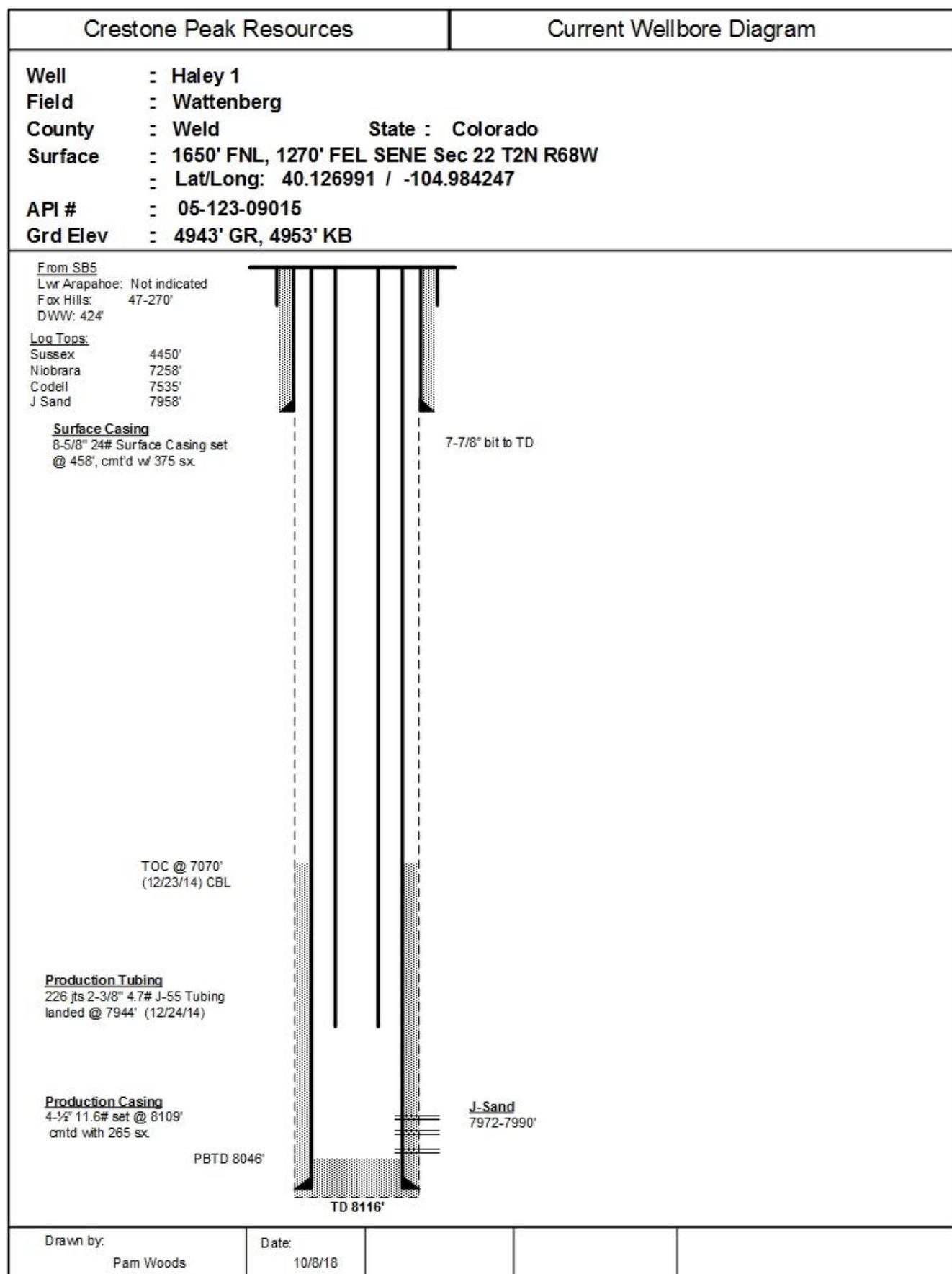
Pull tubing and production equipment. Plug and abandon well.

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 ~7,900' (within 50'-100' of the top of the J-Sand at 7,958', 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 ~7,200 (within 50'-100' of the top of the Niobrara at 7,258', 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. RIH w/ CCL and perforating gun. Perforate squeeze holes at 4,350', adjusting as necessary for collars. POOH.
16. PU CICR with tubing and TIH to 4,335. Set CICR. Unsting and pressure test tubing. Sting into CICR and establish injection.
17. Pump 75 sx Class G cement. Leave 1 bbl on top of CICR. Roll hole clean. Ensure there are no signs of pressure, hydrocarbons or fluid migration. Contact office for next steps, if there is any evidence.
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 510'. 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 309'. 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 408' 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. TOO. H. 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

Crestone Peak Resources	Proposed Wellbore Diagram
Well : Haley 1 Field : Wattenberg County : Weld State : Colorado Surface : 1650' FNL, 1270' FEL SENE Sec 22 T2N R68W : Lat/Long: 40.126991 / -104.984247 API # : 05-123-09015 Grd Elev : 4943' GR, 4953' KB	
<u>From SB5</u> Lwr Arapahoe: Not indicated Fox Hills: 47-270' DWW: 424' <u>Log Tops:</u> Sussex 4450' Niobrara 7258' Codell 7535' J Sand 7958'	
Surface Casing 8-5/8" 24# Surface Casing set @ 458', cmt'd w/ 375 sx	
7-7/8" bit to TD	
TOC @ 7070' (12/23/14) CBL	
Production Casing 4-1/2" 11.6# set @ 8109' cmt'd with 265 sx	
PBTB 8046'	
TD 8116'	
	<div style="color: red;"> CIBP set @ 80' w/ 20 sx cement to surface 75 sx balanced plug ~309' - 510' Calculated with 30% excess in OH 75 sx balanced plug 1,804' - 2,000' Calculated w/ 30% excess in OH 4-1/2" casing cut at 2,000' Inside casing calc TOC: 4266' Outside casing calc TOC: 4083' CIBP set @ 4335' w/ 5 sx on top Sqz holes perf'd @ 4350' Sqz'd w/ 75 sx cement Calculated with 30% excess in OH CIBP set @ 7200' w/ 2 sx cement CIBP set @ 7900' w/ 2 sx cement J-Sand 7972-7990' </div>