



Johnson-Niven 1-13J

CBL/Cement Remediation

DRAFT

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Engineer:	Tyler Barela
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Attachments:

Attachment 1 – Wellbore Diagram
Attachment 2 – Proposed Wellbore Diagram

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 Wellview. Follow best practices for well control and proper handling of gas, oil, and well fluids.

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.

Reason for Work

Run CBL to determine cement tops for possible offset frac remediation.

Additional COGCC COAs

COGCC Rule 317.j

Production casing cementing .The operator shall ensure that all cement required under this rule placed behind production casing shall be of adequate quality to achieve a minimum compressive strength of at least three hundred (300) psi after twenty-four (24) hours and of at least eight hundred (800) psi after seventy-two (72) hours both measured at eight hundred (800) psi at either ninety-five degrees Fahrenheit (95 °F) or at the minimum expected downhole temperature. After thorough circulation of a wellbore, cement shall be pumped behind the production casing (200) feet above the top of the shallowest uncovered known producing horizon. **All fresh water aquifers which are exposed below the surface casing shall be cemented behind the production casing. All such cementing around an aquifer shall consist of a continuous cement column extending from at least fifty (50) feet below the bottom of the fresh water aquifer which is being protected to at least fifty (50) feet above the top of said fresh water aquifer.** Cement placed behind the production casing shall be allowed to set seventy-two (72) hours, or until eight hundred (800) psi calculated compressive strength is developed, whichever occurs first, prior to the undertaking of any completion operation.

Objective:

Run CBL to determine cement top. Remediate if necessary

Procedure:

1. RU Slick line, run gauge ring, and pull plunger and bumper spring.
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. Kill well with produced water.
4. ND wellhead, NU BOP.
5. Un-land Tubing.
6. POOH with tubing.
7. RU E-line.
8. RIH and set CIBP @ 7875' and pressure test plug to 500 psi.
9. Ensure hole is full. Run conventional CBL from RBP to surface. Call Production Engineer after CBL to confirm top of cement @ 719-859-4942 and receive path forward. TOC must be 7039' or higher (at least 200' above top of Niobrara). If cement coverage insufficient, proceed to next step.
10. RIH and shoot squeeze holes 20' above top of cement. Run injection test. If unable to establish injection, call Production Engineer @ 719-859-4942 to receive path forward.
11. RIH with wireline and set CICR ~50' above squeeze holes.
12. RIH with tubing. Check circulation through stinger and sting into CICR.
13. Attempt to establish injection. If unable to establish injection, call Production Engineer @ 719-859-4942 to receive path forward.
14. Pump 100 sx Class G cement minimum (assuming 10% washout, would provide ~400' coverage). If CBL shows more than 400' of coverage is needed to reach 200' over Niobrara top, pump 25 sx cement for each 100' of additional coverage.
15. Sting out. Reverse circulate to clear tubing.
16. POOH with tubing.
17. Ensure hole is full. Run conventional CBL from CICR to 4000'. Call Production Engineer after CBL to confirm top provides adequate cement coverage.
18. RIH with tubing and pump off bit sub. Drill out CICR and CIBP.
19. Pump off bit. Set tubing @ 7934'.
20. ND BOP, RDMO pulling unit.
21. Ensure all cement tickets are mailed or emailed to the Denver office for subsequent reporting.