

Short Procedure: COLTHARP W.H. B 2X - Failure

Background: Well is currently down due high water cut. Water production jumped from 75 to 1000 bwpd. Plan to pull equipment and evaluate, repair casing as needed and return to a TA status.

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Short Procedure: For procedure specifics, WSMs will need to refer to the MMWW Standard Procedure or Rangely WPT.

1. MIRU workover rig and equipment. Check pressure on all casing strings (including bradenhead). Record tubing and casing pressures every day on the WellView report.
2. Bleed off pressure. Kill well with 10 ppg or less KMW if necessary.

NOTE: Unless there is a well control event do not pump heavier than 10 ppg KWF. Confirm with workover engineer and superintendent that well is WellSafe certified prior to CaCl₂.

3. Set BPV in hanger (**WSEA 10A**), if possible. N/D tree. N/U 7-1/16" 5K BOP with 3K Washington head, 3K annular and 2-7/8" pipe rams on top of blind rams (**WSEA 8A**). Pull BPV. Test BOPE to 250 psi low for 5 mins and 2100 psi high for 10 mins (**WSEA 9**).

NOTE: If BPV cannot be set, the well must be monitored for flow for 15 minutes or longer before installing BOP. Note reasoning for not setting BPV in WellView timelog and in WSEA 10.

4. Caliper elevators and document in WellView. TOOH with the 2-7/8" tubing. While spooling out ESP cable, visually inspect tubing.

Note: Plan to rerun tubing since the well will be TA'd.

5. P/U 6-1/8" bit and scraper BHA and make scraper run to top of 5" liner at 5,654'. TOH.

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6. P/U 7" RBP and 7" TST packer and TIH to ~5,630'. Set RBP. Set 7" TST packer and pressure test RBP 500 psi for 15 mins. Attempt to test casing to 300 psi for 30 mins. Begin moving TST packer to isolate casing leak. TOH with TST packer.

NOTE: Casing test needs to stabilize at or above 300 psi for producers and TA'd wells.

7. MIRU e-line. N/U lubricator and test to 500 psi. Perform CBL from liner top to surface. RDMO e-line.
8. Once nature of the leak is determined and CBL reviewed, communicate with workover engineer and superintendent to determine plan forward for repairing the leak. If it is necessary, a written procedure will be developed to cover the steps for repairing the UIC failure.

NOTE: ENSURE ALL STEPS ARE BEING TAKEN TO FOLLOW ALL REGULATORY AND RULES AND REGULATIONS. REFER TO RANGELY REGULATORY/PERMITTING DOCUMENT FOR REQUIREMENTS. IF UNSURE CONSULT WITH WORKOVER ENGINEER OR DIANE PETERSON FOR GUIDANCE.

9. Ensure good casing test to 300 psi for 30 mins is achieved following remedial cementing or casing patch installation **(WSEA 6A)**.
10. P/U retrieval tool and TIH. Retrieve RBP(s). TOH.
11. P/U WL entry guide, 7" Lok-set packer, 2-7/8" tubing & on/off with 1.875 F profile nipple on 2-7/8" workstring and TIH. Set packer at ~5,620'. MIRU PLS and set tubing plug in profile. Displace with fresh water. **Pressure test packer/plug to 300 psi for 15 mins (WSEA 10B)**. TOOH L/D workstring.

NOTE: Packer setting depth may be adjusted depending on findings of casing tests in Step 6. Packer must be within 500' of the top perf (6,108'). Work with Diane Peterson if variance is needed to set packer higher.

12. P/U on/off skirt and rerun 2-7/8" tubing. Space out pump packer fluid. Engage on/off tool and land the tubing in compression.

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13. Set BPV (**WSEA 10B**). N/D BOP. Pull BPV. N/U tree and visually monitor for leaks for 15 mins (**WSEA 10C**).

NOTE: If BPV cannot be set, the well must be monitored for flow for 15 minutes or longer before installing injection tree. List reasoning for not being able to set BPV in WellView.

14. Test casing/hanger/packer to 300 psi for 30 minutes. (**WSEA 6A and 10D**).
15. Notify Diane well is ready for regulatory witnessed MIT. Complete Ownership Transfer Document from D&C to Operations. RDMO workover rig and equipment. **Ensure Location is Clean.**