



Moser 21-26

Remediation Procedure

April 30, 2017

Engineer:	Matt Cook
Workover Coordinator:	Mark Balderston
Production Manager:	Jason Schmidt
VP Operations:	John Schmidt

Attachments:

Attachment 1 – Current Wellbore Diagram
Attachment 2 – Proposed Wellbore Diagram

Objective:

Pump suicide squeeze across Nio and Sussex/Shannon Base. Perform annular fill from 2200' to surface.

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 Crestone daily completion reports in Wellview.

Regulations

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

Additional Info

- | | |
|--|---|
| • Reason for work? | COA for Anadarko Jaguar Frac. |
| • Casing to be pulled? | NO |
| • Fish in hole? | NO |
| • Does wellbore have un-cemented casing leaks? | NO – plan to have cement coverage across squeeze holes. |

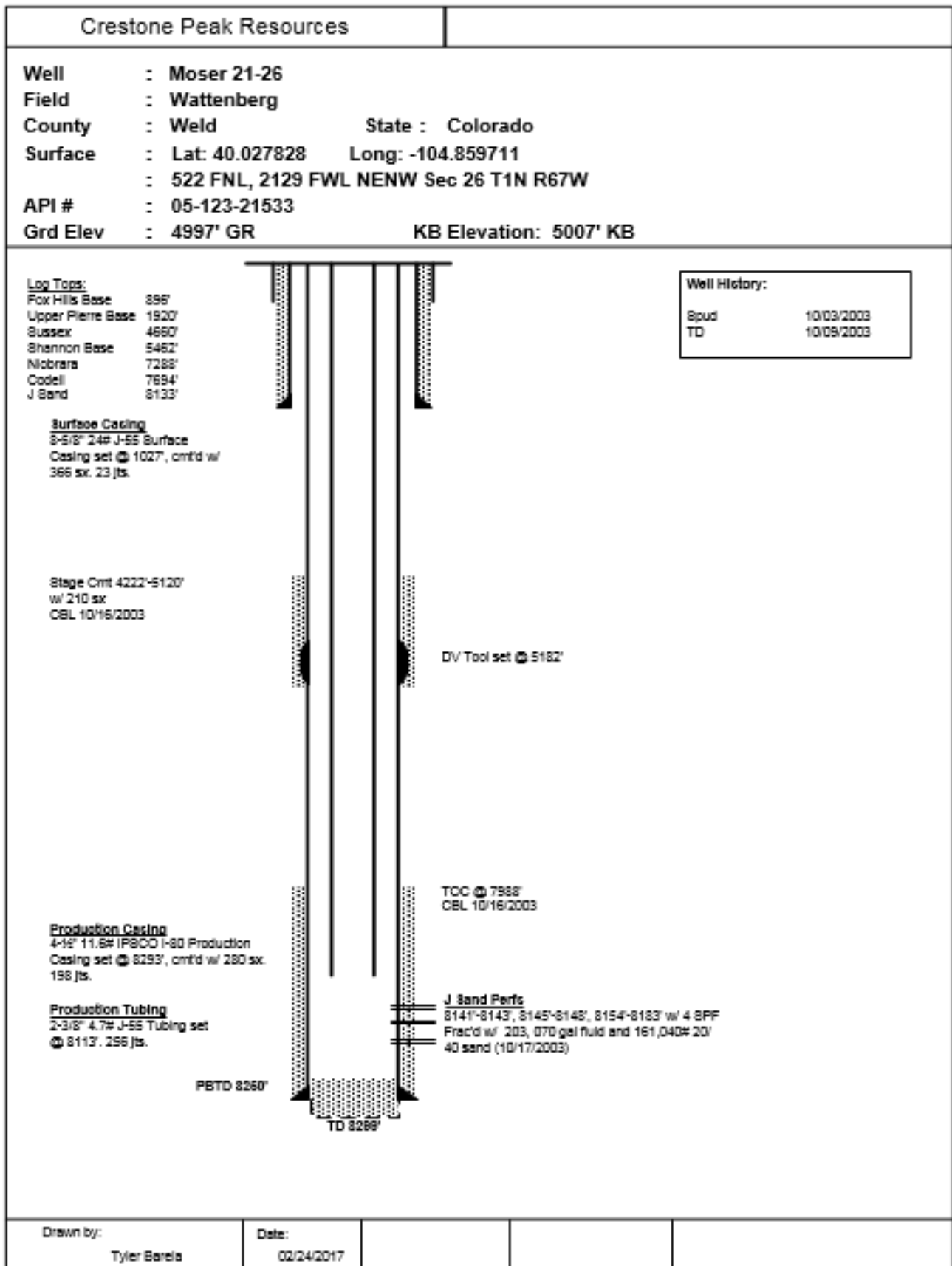
Remediation Procedure

1. Submit electronic Form 42 to COGCC 48 hours prior to performing Form 17 Bradenhead Test.
2. Perform Form 17 Bradenhead test and sample for gas, water, and oil per COGCC regulations.
3. RU Slick line, run gauge ring, and pull plunger and bumper spring.
4. 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.
5. MIRU pulling unit.
6. Kill well with produced water.
7. ND wellhead, NU BOP.
8. Un-land & POOH with tubing.
9. RIH with bit and scraper and tag to confirm TD at 8288'.
10. RIH with wireline and set CIBP @ 7970' (~28' above cement top).
11. RIH and shoot squeeze holes @ 7960' & 5200'.
12. RIH with wireline and set CICR @ 7950'.
13. RIH with tubing, sting into CICR and establish circulation spotting 586 sxs (124 bbls) Class G Neat Cement through perforations.
14. Sting out of CICR, circulate to clean tubing and casing. **NOTE: Do not reverse circulate to avoid un-necessary pressure on squeeze perforations.**
15. POOH and laydown stinger.
16. Wait on cement to set overnight.
17. RIH to run conventional CBL from 7950' to surface. Send CBL to production engineer (matthew.cook@crestonepr.com) to confirm no changes need to be made to procedure.
18. POOH with wireline and pressure test squeeze holes to 500 psi to ensure cement integrity.
19. Un-land 4-1/2" production casing.
20. NU annular fill wellhead and RIH down 4-1/2" by 8-5/8" annulus with 1-1/4" tubing 2,200'.
21. Establish circulation and continue circulation for a minimum of 4-6 hours to ensure hole is clean and good bond can be achieved.
22. Pump 64 sxs (~14 bbls) of GasLock Thixotropic Cement from ~2,200' to 1,900'.
23. PU tubing to 1,900'. Establish circulation and pump 64 sxs (~14 bbls) of GasLock Thixotropic Cement from ~1,900' to 1,600'.
24. PU tubing to 1,600'. Establish circulation and pump 64 sxs (~14 bbls) of GasLock Thixotropic Cement from ~1,600' to 1,300'.

25. PU tubing to 1,300'. Establish circulation and pump 64 sxs (~14 bbls) of GasLock Thixotropic Cement from ~1,300' to 1,000'.
26. PU tubing to 1,000'. Establish circulation and pump 64 sxs (~14 bbls) of GasLock Thixotropic Cement from ~1,000' to 700'.
27. PU tubing to 700'. Establish circulation and pump 147 sxs (~31 bbls) of GasLock Thixotropic Cement from ~700' until returns are seen at surface.
28. POOH and lay down 1-1/4" tubing. ND annular fill wellhead.
29. Re-land 4-1/2" casing and ensure hole is full.
30. RU E-line and run conventional CBL from 3000' to surface. Send CBL to and contact production engineer (matthew.cook@crestonepr.com) after CBL to confirm adequate cement coverage.
31. RD E-line.
32. RIH with tubing and bit to drillout CIBP & CICR.
33. POOH with tubing and bit.
34. RIH and re-land tubing @ 7250'.
35. ND BOP, NU 5K wellhead.
36. RDMO pulling unit.
37. Ensure all cement tickets are emailed to the Denver office for subsequent reporting. Emails shall be sent to Production Engineer, Workover Coordinator, and Production Technician.
38. Submit Form 5 Drilling Completion report documenting all placed cement. Include CBL with this form.

End Procedure

Attachment #1 – Current Wellbore Diagram



Attachment #2 – Proposed Wellbore Diagram

