

Idaho Department of Land

SUNDRY NOTICES AND REPORTS ON WELLS

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Well Permit Number 11-075-20022
2. Name of Operator Alta Mesa Services, LP		6. If Indian, Allottee or Tribe Name N/A
3a. Address 15021 Katy Freeway, Suite 400, Houston, TX 77094	3b. Phone No. (include area code) 281-530-0991	7. If Unit or CA/Agreement, Name and/or No. N/A
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Section 10 Township 8N Range 4W		8. Well Name and No. ML Investments #2-10
		9. API Well No. 11-075-20022
		10. Field and Pool, or Exploratory Area Willow
		11. County or Parish, State Payette, Idaho

CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> New Construction	<input type="checkbox"/> Stimulation Treat
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input checked="" type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
	<input type="checkbox"/> Deepen	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones, attach the Bond under which the work will be performed or provide the Bond No. on file with IDL. Required subsequent reports shall be filed within 30 days following completion of the involved operations. Final Abandonment Notices shall be filed only after operations. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Objective:**

Squeeze off water/channel that is potentially coming the 4 1/2" x 5 1/2" annulus or behind 5 1/2" prod csg via circulation sqz. Re-test current perforations at 4102-12'. If well cannot be circulated via 4 1/2" x 5 1/2" csg annulus or behind 5 1/2" csg, will plan to plug back from current perforations and set cmt retainer immediately above perms (approx. 4100') and sqz 4102-12' perms. Will then plan to perforate and test zone from 4080' - 4100' - Perfs TBD.

See attached for procedures.

14. I hereby certify that the foregoing is true and correct	
Name (Printed/Typed) Tampy Short	Title Regulatory Analyst
Signature 	Date 4/3/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by 	Date April 4, 2018
Title SO&H Program Manager	Office Boise

\*Conditions of approval, if any are attached, approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

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## Recompletion Proposal

ML Investments 2-10 Well

Willow Field

Payette Co, ID

API# 11-075-20022

4/2/18

### Detailed Procedure

1. MIRU WOR, tank, pump, 5K lines, beam. Haul in 130 bbls produced FW, RU C&J Cementing unit, 250 sks Class G cmt and additives, lines, manifold.
2. Take pressures – SITP / SICP / SISCP and report same.
3. Load rig tank with 150 bbls 8.3 ppg field water and use hopper to mix in 5K lbs of granular KCL to make 8.7 ppg KCL. Roll tank thru rig pump until FD is 8.7 ppg.
  - a. Include biocide in work fluid.
4. JSA
5. Test lines 500/3500 psig with rig pump.
6. Bull head 32 bbls down tbg (2 tbg volumes).
7. Set BPV in hanger.
8. ND Prod tree.
9. NU 7 1/16" 5K frac valve.
10. NU 7 1/16" 5K Double BOP & (2) TIW's (Blinds on top / 2 3/8" pipe rams on bottom)
11. Pull BPV, install 2-way ck in hanger.
12. Test BOPs (hold test 2 minutes)
  - a. Install new ring gasket on THF
  - b. Blinds 500 / 3500 psig
  - c. Pipe rams 500 / 3500 psig
  - d. Test (2) TIW's 500 / 2000 psig.
13. Pull 2-way ck from hanger.
14. Back out pins on TH and install lift jt.
15. Release pkr (1/4 turn to right and confirm string weight (12-14K lbs w/ buoyancy).
16. Reverse out 3 BU (49 bbls) at 3-5 BPM w/ 8.7 ppg KCL water.
17. POOH w/ 2 3/8" tbg.
18. PU 2 3/8" stinger and subs.
19. TBIH and sting into retainer at 4147'.
  - a. Reverse out clean on top of retainer 3-4 BPM prior to stinging in.
20. JSA w/ cement crew.
21. Test lines, manifold 500 / 5000 psig.

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22. Perform injection test into perfs at 4158-70' down tbg. Record injection pressures and rates. Max Inj pressure 2000 psi. Monitor backside and observe SICP. NOTE: The static FL should be around 1000-1500'.
  - a. 0.5 BPM 5 bbls total
  - b. 1 BPM 5 bbls total
  - c. 1.5 BPM 5 bbls total
  - d. 2 BPM 5 bbls total
23. Open backside while injecting and determine if well will circulate behind pipe.
  - a. If the FL is at 1500' +/- it will take approx. 13 bbls to begin circulating.
  - b. Inject at least 30 bbls w/ backside open before abandoning effort to establish circulation.
  - c. If circulation to backside is established, plan to get 2 BU to assist in cleaning out annular space.
  - d. **\*If well does not circulate, see Supp procedure below to plug back and sqz existing perfs at 4102-12' and test upper most lobe of Sand 2 between 4080-4100'. \***
24. Assuming well circulates – move forward with circulation sqz thru perfs at 4102-12'.
  - a. Close backside in.
  - b. Mix 50 sks (10.5 bbls) Class G cmt w/ 0.5% DCD-33 (FR) + 0.5% CFL-300 (LWL) + 0.15% CR-270 (Ret) at 15.6 ppg 1.18 CF/sk yield using 5.15 gal FW / sk.
    - i. 6 hr pump time.
    - ii. LWL 50 cc's / 30 mins.
    - iii. Compressive strength
      1. 12 hrs 1000 psi CS
      2. 24 hrs 1500 psi CS
  - c. Pump 10 bbls cmt slurry w/ backside closed and displace to top of retainer w/ displace w/ 6 bbls 8.8 ppg KCL water leaving TOC at 1560'.
  - d. Pump 6.6 bbls cmt into formation w/ 6.6 bbls 8.8 ppg KCL.
  - e. Open backside and take 2.45 bbls in returns.
  - f. Total displacement = 15.10 bbls 8.8 ppg KCL water.
  - g. Final TOC inside tbg – 3902' psih – 1983 psi w/ 245' cmt column
  - h. Final TOC inside annulus – 3867' psih – 1983 psi w/ 245' cmt column
25. Sting out of retainer.
26. POOH slowly – if well is U-tubing, let well stabilize before POOH.
27. WOC
28. PU 3.62" tapered cmt mill and subs.
29. TIH and tag up with cmt and record depth.
30. RU power swivel stripper head.
31. Drill out cmt to cmt retainer at 4147' reversing.
32. Reverses out 2-3 BU at retainer.
33. POOH.
34. RU WLU.
35. MU 3.60" GR/JB on CCL.
36. RIH and tag Cmt retainer at 4147'.
37. POOH.

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38. PU 2 3/8" x 4 1/2" VS1X pkr and TCP assy
  - a. VS1X pkr turned down to 3.59" OD
  - b. 3 1/8" x 12' HSE loaded 6/60
  - c. 1.72" XN profile
  - d. Mech firing head
  - e. Flow sub
  - f. Drift all coponents.
39. RIH w/ BHA on WL w/ CCL.
40. Tie-into Weatherford log gamma/CCL 3/13/14.
41. Set pkr at approx. 4085' leaving guns in zone at 4102' – 12'.
42. RD WLU.
43. PU on/off tool skirt and RIH w/ 2 3/8" tbg w/ on/off tool, drifting.
44. Tag up w/ on/off tool stinger and space out same.
45. Latch up and land tbg in TH bowl.
46. Run in pins.
47. Test backside to 500 psig for 10 mins.
48. ND BOPs / NU tree.
49. Set 2-way ck and test tree 500/2500 psig.
50. Pull 2-way ck.
51. RU swab.
52. Swab well down to 2000'.
53. Move rig off of well to side of location and MU flow line.
54. Drop bar and perforate 4102-12'.
55. Clean up well to rig tank and recover all LW (8.1 bbls).
  - a. Swab as necessary.
56. Turn well over to production dept.

**\*Supplemental Procedure** – If unable to establish circulation to behind pipe, will sting out of retainer at 4147' and TOOH. Plug back w/ 2<sup>nd</sup> cmt retainer and set at 4100' +/- and plan to sqz current perforations at 4102-12'. Then will proceed to perf and test zone between 4080' – 4100'.

1. Sting out of cmt retainer at 4147' and TOOH.
2. PU cmt retainer on WL and RIH, set cmt retainer at 4100'.
3. Test csg/retainer to 1000 psig for 10 mins.
4. PU stinger and TIH.
5. Sting into cmt retainer and perform injection test into perfs at 4102-12'. Max injection 2000 psig.
6. Leave 10K lbs on retainer and apply 500 psig to backside.
  - a. 0.5 BPM
  - b. 1 BPM
  - c. 1.5 BPM
  - d. 2 BPM

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7. Mix 50-100 sks class G cmt depending on injection test (10.5 - 21 bbls) w/ 0.5% DCD-33 (FR) + 0.5% CFL-300 (LWL) + 0.15% CR-270 (Ret) at 15.6 ppg 1.18 CF/sk yield using 5.15 gal FW / sk.
8. Pump slurry and displace 14.8 bbls, leaving 1 bbl cmt inside tbg.
9. Sting out and reverse out cmt and excess 3 BU at 3-4 BPM.
10. TOOH.
11. RU WLU.
12. MU 3.60 GR/JB w/ CCL.
13. RIH and tag cmt retainer at 4100' and confirm guns and pkr can get down. Tie-into Weatherford Gamma/CCL log 3/13/14.
14. POOH.
15. PU 2 3/8" x 4 1/2" VS1X pkr and TCP assy
  - a. VS1X pkr turned down to 3.59" OD
  - b. 3 1/8" HSE gun – perf interval TBD.
  - c. 1.72" XN profile
  - d. Mech firing head
  - e. Flow sub
  - f. Drift all coponents.
16. RIH w/ BHA on WL w/ CCL.
17. Tie-into Weatherford log gamma/CCL 3/13/14.
18. Set pkr at approx. 4060'. Perfs TBD.
19. RD WLU.
20. PU on/off tool skirt and RIH w/ 2 3/8" tbg w/ on/off tool, drifting.
21. Tag up w/ on/off tool stinger and space out same.
22. Latch up and land tbg in TH bowl.
23. Run in pins.
24. Test backside to 500 psig for 10 mins.
25. ND BOPs / NU tree.
26. Set 2-way ck and test tree 500/2500 psig.
27. Pull 2-way ck.
28. RU swab.
29. Swab well down to 1500'.
30. Move rig off of well to side of location and MU flow line.
31. Drop bar and perforate – Perfs TBD'.
32. Clean up well to rig tank and recover all LW.
  - a. Swab as necessary.
33. Turn well over to production dept.

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