

**RE-ENTRY PLUG and ABANDONMENT PROCEDURE**

HSR-LOST CREEK STATE 13-20

05-123-19588

Step Description

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1	PREP
2	Well is being re-entered to P&A well to current standards due to it being offset to upcoming fracs.
3	Provide 48 hour notice to Colorado ECMC prior to rig up per request on approved Form 6 (i.e. submit Form 42, etc.)
4	Perform pre-job safety meeting and review JSA. Ensure all parties know their roles and responsibilities and can identify hazards.
5	Follow all Rockies Well Servicing guidelines.
6	Stop and complete new JSA prior to all barrier changes.
7	Locate and expose 8-5/8" casing stub.
8	Tie into and weld on 8-5/8" casing stub above GL.
9	Install 8-5/8" 3K Q92 well head with ball valves on both outlets.
10	Check and record surface casing pressure.
11	START RIG ACTIVITIES
12	MIRU rig/ equipment/tanks/pumps.
13	Perform negative test and ensure well is dead. Wait 15-30 minutes to verify (cement is at surface).
14	Pressure test BOPE, annular and 2" 1509 iron to API standards. Chart and record pressure tests. Please refer to Testing Procedures and Testing Table listed in the APPENDIX tab. All tests are performed on stump. Note: ensure BOPE accumulator controls are properly placed and pressurized.
15	NU and torque BOPE to casing head. The BOP consists of the following components: 7-1/16" double gate BOP with blind rams and pipe rams (for 4.5" DP), annular bag, 2 TIW valves accessible with change overs if applicable (i.e. drill collars). Communicate with foreman on correct BOP.
16	Test TIW valves. Chart tests and document accordingly.
17	DRILLING
18	PU 7-7/8" drilling BHA w/ MWD on drill pipe. (7-7/8" tri-cone, 7-7/8" near bit stabilizer, 6-11/16" OD straight motor, 7-7/8" stabilizer, monels, UBHO, 7-7/8" stabilizer, 6 x 4.5" HW)
19	Drill 10 sx cement plug from surface through estimated BOC at 30'. Continue drilling out 40 sx cement plug at shoe, TOC estimated at 546' BOC estimated at 680'. AS SOON AS WE BEGIN TO SEE INDICATION OF NEW FORMATION BEING DRILLED, STOP AND DISCUSS W/ FOREMAN/ENGINEER. Continue washing down to 5308'. Contact engineering if depth not reached.
20	Circulate with biocide treated fresh water to clean the hole. Pump until returns are clean.
21	TOOH, LD BHA.
22	PU and TIH with 8-5/8" bit and scraper. Clean surface casing from surface to 590'. TOOH, LD bit and scraper.
23	NIO PLUG
24	RIH w/ 4-1/2" DP open-ended to 6300'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
25	MIRU cementers. Pump Nio Plug: Pump 200 sx (1.52 yld - 54 bbl or 304 cf) of the Niobrara Cement blend: Class G with 0.4% B547 Gas Block (Latex) and 0.4% D255 FLA (Fluid Loss) and 35% D066 Silica Flour and 0.2% D800 (Retardant) and 0.3% D065 (Dispersant). Volume based on 600' in 7.875" bit size open hole with 50% excess factor. Cement will be from 6300'-5700'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
26	Pull out of cement. TOOH to 4400'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
27	SUSSEX PLUG
28	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 4400'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.

29	MIRU cementers. Pump Sussex Plug: Pump 280 sx (1.19 yld - 59 bbl or 333 cf) of the Sussex AGM: Class G with 0.4% B547 Gas Block (Latex) and 2% D053 Expansion (Gyp) and 0.25% D255 FLA (Fluid Loss) 0.3% D065 (Dispersant). Volume based on 500' in 7.875" bit size open hole with 100% excess factor. Cement will be from 4400'-3900'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
30	Pull out of cement. TOOH to 3000'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
31	2300' PLUG
32	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 2300'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
33	MIRU cementers. Pump 2400' Plug: Pump 200 sx (1.21 yld - 43 bbl or 242 cf) of the Lower AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 1% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 500' in 7.875" bit size open hole with 40% excess factor. Cement will be from 2300'-1800'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
34	Pull out of cement. TOOH to 1600'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
35	1600' PLUG
36	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 1600'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
37	COA: Prior to pumping cement into the Upper Pierre, verify all fluid migration has been eliminated. Contact engineering if pressure remains.
38	MIRU cementers. Pump 1600' Plug: Pump 280 sx (1.21 yld - 60 bbl or 339 cf) of the Upper AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 1.5% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 500' in 7.875" bit size open hole with 100% excess factor. Cement will be from 1600'-1100'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
39	Pull out of cement. TOOH to 700'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
40	SHOE PLUG
41	COA: Refer to shoe plug COA in approved Form 6
42	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 800' or stay just above tag if shallower than 800'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
43	MIRU cementers. Pump Shoe Plug: Pump 280 sx (1.21 yld - 60 bbl or 339 cf) of the Surface AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 2.0% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 213' in 7.875" bit size open hole with 200% excess factor and 287' in 8-5/8" 24# with 0% excess factor. Cement will be from 800'-300'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
44	Pull out of cement. TOOH to 150'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
45	SHOE/SURFACE PLUG
46	COA: Refer to shoe plug COA in approved Form 6
47	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 800' or stay just above tag if shallower than 800'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
48	MIRU cementers. Pump Shoe/Surface Plug: Pump 345 sx (1.21 yld - 75 bbl or 418 cf) of the Surface AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 2.0% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 206' in 7.875" bit size open hole with 200% excess factor and 583' in 8-5/8" 24# with 0% excess factor. Cement will be from 800'-Surface. Break it up into sections as you see needed. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job. Bring cement to surface and note volume returned.
49	Pull out of cement. TOOH, LD all but one joint of pipe. Circulate clean with water to ensure TOC is low enough for C&C team. TOOH and LD final joint. RDMO cementers. ND BOP. Install night cap. RDMO all.
50	Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@oxy.com within 24 hours of completion of the job.
51	Supervisor submit paper copies of all invoices, logs, and reports to Well Services Engineering Specialist.
52	Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
53	Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
54	Welder cut casing minimum 5' below ground level.