

OCCIDENTAL PETROLEUM CORPORATION

Please contact your area engineer with any questions concerning this procedure.

7/2/2024

PLUG and ABANDONMENT PROCEDURE

UPRR 34 PAN AM 1

API: 05-123-07218

**Step Description**

1	Well is being re-entered to P&A well to current standards due to it being offset to upcoming fracs.
2	Provide 48 hour notice to Colorado ECMC prior to rig up per request on approved Form 6 (i.e. submit Form 42, etc.)
3	Perform pre-job safety meeting and review JSA. Ensure all parties know their roles and responsibilities and can identify hazards.
4	Follow all Rockies Well Servicing guidelines.
5	Stop and complete new JSA prior to all barrier changes.
6	Attempt to leave kill string in the hole every evening/weekend. If this is not possible, discuss with foreman/engineer.
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	MIRU CT unit/crane/equipment/tanks/pumps.
12	Perform negative test and ensure well is dead. Wait 15-30 minutes to verify (cement is at surface).
13	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.
14	NU and torque BOPE to casing head. Communicate with engineer, foreman, CT rep on correct BOP.
15	Test TIW valves. Chart tests and document accordingly.
16	Confirm with engineer, foreman and CT rep with BHA design.
17	PU and TIH with 2-3/8" CT with drill bit and motor.
18	Drill 10 sx cement plug from surface through estimated BOC at 137'. IF WE BEGIN TO SEE INDICATION OF NEW FORMATION BEING DRILLED, STOP AND DISCUSS W/ FOREMAN/ENGINEER. Continue drillout and wash down to tag at 7230'. Contact engineering if plug is not tagged at depth.
19	Circulate with biocide treated fresh water to clean the hole. Pump until returns are clean.
20	Run gyro or use directional survey.
21	TOOH, LD drill bit, and directional tools.
22	PU and TIH with 4-1/2" bit and scraper. Clean surface casing from surface to 221'. Run scraper over 100' to 120' 2-3 times to ensure casing is clean for CIBP. TOOH, LD bit and scraper, SB all CT.
23	MIRU WL. Ensure hole has been circulated clean to remove gas interference. Run CCL/GR/CBL/VDL log from +/- 7200' to surface to confirm squeeze location. Future operations may change depending on CBL results.
24	Forward logs to engineering and in addition to the normal handling of logs/job summaries, email copies of all cement job logs/job summaries and invoices to DJVendors@oxy.com within 24 hours of job completion. Note that squeeze hole locations and cement volumes may vary depending on CBL results.
25	PU and RIH with one 4', 3-1/8" perf gun with 4 spf. Shoot 16 squeeze holes at 6200'. POOH. RDMO WL.
26	Verify injection from surface with fresh water.
27	MIRU cementers. Pump Niobrara Bullhead Squeeze: 115 sx (31.2 bbl or 175 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). Displace 93 bbls of fresh water to 6000'. Volume is based on 95 sx out into formation and 200' in the casing. Collect wet and dry samples of cement to be left on rig. RDMO cementers.
28	Shut in well immediately after displacing and apply pressure as necessary. WOC 4 hours.
29	RIH with 2-3/8" tubing with TCP gun and shoot at 4390'. POOH with TCP gun and reel all tubing to reel. Verify correct gun with engineering and foreman.
30	Verify injection from surface with fresh water.

31	MIRU cementers. Pump Sussex Bullhead Squeeze: 115 sx (24.4 bbl or 137 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). Displace 64 bbls of fresh water to 4190'. Volume is based on 95 sx out into formation and 200' in the casing. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
32	Shut in well immediately after displacing and apply pressure as necessary. WOC 4 hours.
33	RIH with 2-3/8" tubing with TCP gun and shoot at 2500'. POOH with TCP gun and reel all tubing to reel. Verify correct gun with engineering and foreman.
34	Verify injection from surface with fresh water.
35	MIRU cementers. Pump Bullhead Squeeze: 115 sx (24.8 bbl or 140 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). Displace 35 bbls of fresh water to 2300'. Volume is based on 95 sx out into formation and 200' in the casing. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
36	Shut in well immediately after displacing and apply pressure as necessary. WOC 4 hours.
37	COA: Prior to pumping cement into the UPA, verify pressure migration has been eliminated. Contact engineering prior to pumping cement if pressure remains.
38	RIH with 2-3/8" tubing with TCP gun and shoot at 1740'. POOH with TCP gun and reel all tubing to reel. Verify correct gun with engineering and foreman.
39	Verify injection from surface with fresh water.
40	MIRU cementers. Pump UPA Bullhead Squeeze: 115 sx (24.8 bbl or 140 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). Displace 23 bbls of fresh water to 1540'. Volume is based on 95 sx out into formation and 200' in the casing. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
41	Shut in well immediately after displacing and apply pressure as necessary.
	COA: WOC 8 hours. If there is evidence of pressure or fluid migration, contact Engineering as there will need to be additional remediation attempts before the SC shoe plug.
42	RIH with 2-3/8" tubing with TCP gun and shoot at 660'. POOH with TCP gun and reel all tubing to reel. Verify correct gun with engineering and foreman.
43	Verify injection from surface with fresh water.
44	MIRU cementers. Pump Squeeze: 135 sx (29.1 bbl or 164 cf) of the Surface AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 2% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Displace 2 bbls of fresh water to 110'. Volume is based on 95 sx out into formation and 550' in the casing. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
45	Shut in well immediately after displacing and apply pressure as necessary. WOC 4 hours.
42	COA: If cement was not circulated to surface, then WOC 4 hours. Tag TOC. TOC must be 171' or shallower. If tag is too deep or there is evidence of pressure or fluid migration, contact Engineering.
43	MIRU WL. RIH and tag cement with gauge ring to verify appropriate coverage above the surface casing shoe. Notify engineering if tag is low. Pressure test TOC to 500psi for 15 minutes. Record and notify engineering and foreman of results.
44	MIRU WL. PU and RIH with (4-1/2", 11.6#) CIBP and set at 110'. POOH. RDMO WL.
45	TIH to 110' and verify circulation.
46	MIRU Cementers. Pump Surface Plug: Pump 35 sx (7.6 bbl or 43 cf) of the Surface AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 2% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 110' inside 8-5/8", 23# surface casing with no excess. Cement will be from 110' to surface. Verify and document cement to surface. Collect wet and dry samples of cement to be left on rig.
47	Pull out of cement. Circulate clean with water to ensure TOC is low enough for C&C team. TOO H RDMO cementers. ND BOP. Install night cap. RDMO CT Unit.
48	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.
49	Supervisor submit paper copies of all invoices, logs, and reports to Well Services Engineering Specialist.
50	Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
51	Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
52	Welder cut casing minimum 5' below ground level.

53	Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
54	Obtain GPS location data and provide to GPS Teams page and OXY GIS database.
55	Back fill hole with fill. Clean location, and level.
56	Submit Form 6 Subsequent Report to Colorado ECMC ensuring to provide 'As performed' WBD identifying operations completed.