

## OCCIDENTAL PETROLEUM CORPORATION

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

11/10/2024

## RE-ENTRY PLUG and ABANDONMENT PROCEDURE

CHAMPLIN 542 AMOCO A #1

API: 05-123-09574



## Step Description

1	<b>PREP</b>
2	Well is being re-entered to P&A well to current standards due to it being offset to upcoming fracs.
3	<b>Provide 48 hour notice to Colorado ECMC prior to rig up per request on approved Form 6 (i.e. submit Form 42, etc.)</b>
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	<b>Locate and expose 8-5/8" and 4.5" casing stubs.</b>
8	Tie into and weld on 4.5" and 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	<b>START RIG ACTIVITIES</b>
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 2.375" WS), 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	<b>DRILLING</b>
18	PU 3-7/8" drilling BHA w/ MWD on 2-3/8" WS.
19	Drill 10 sx cement plug from surface through estimated BOC at 40'. Continue washing down to ~6400' to CIBP cem top'. Contact engineering if depth not reached.
20	Drill out cement and CIBP at 6420'. Chase to 7150'.
21	Circulate with biocide treated fresh water to clean the hole. Pump until returns are clean.
22	TOOH, LD BHA.
23	MIRU WL and Run CBL from 7000' to surface. Discuss CBL results and potential design changes with engineer.
24	<b>NIO ROLL-OVER</b>
25	Perforate 6600' and 6000' with 4 spf x 4 ft, "large hole" circulating charges. RDMO WL.
26	RIH w/ packer and circulate between 6600 and 6000' for cleanup in prep for cementing. TOOH LD packer.
27	RIH w/ CICR on WS or on WL and set at 6050'.
28	MIRU cementers. Pump Nio Roll Over: Pump 235 sx (1.52 yld) 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). Sting out and leave last 3 bbls on top. Volume based on 600' in 10"(caliper) x 4.5" annulus with 30% excess factor for losses, 550' in 4.5" 10.5# and 15 sx on top of CICR. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
29	Pull out of cement. TOOH to 5000'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
30	<b>SUSSEX ROLL-OVER</b>
31	Perforate 4400' and 3800' with 4 spf x 4 ft, "large hole" circulating charges. RDMO WL.
32	RIH w/ packer and circulate between 4400 and 3800' for cleanup in prep for cementing. TOOH LD packer.
33	RIH w/ CICR on WS or on WL and set at 3850'.

34	MIRU cementers. Pump Sussex RO: 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). Sting out and leave the last 4 bbl on top. Volume based on 600' in 10"(caliper) x 4.5" annulus with 0% excess factor for losses, 550' in 4.5" 10.5# and 20 sx on top of CICR. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
35	Pull out of cement. TOOH to 3000'. Circulate tbq clean for a minimum of 2 bottoms up. TOOH. WOC.
36	<b>2400' ROLL-OVER</b>
37	Perforate 2400' and 1800' with 4 spf x 4 ft, "large hole" circulating charges. RDMO WL.
38	RIH w/ packer and circulate between 2400 and 1800' for cleanup in prep for cementing. TOOH LD packer.
39	RIH w/ CICR on WS or on WL and set at 1850'.
40	MIRU cementers. Pump Sussex RO: Pump 205 sx (1.21 yld) 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). Sting out and leave the last 3 bbl on top. Volume based on 600' in 7.875" x 4.5" annulus with 30% excess factor for losses, 550' in 4.5" 10.5# and 15 sx on top of CICR. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
41	Pull out of cement. TOOH to 1600'. Circulate tbq clean for a minimum of 2 bottoms up. TOOH. WOC.
42	<b>CUT/PULL CASING</b>
43	PU and TIH with mechanical cutter on WS. Cut 4-1/2", 10.5# casing at 1550'. TOOH and LD cutter.
44	Attempt to establish circulation with water. Circulate in 90 bbls of HSF, displace to cut, let soak for 1 hour then displace out.
45	ND BOP. ND TH. Un-land casing. Rig max pull shall be 100,000#. Max pull over string weight shall be 50,000#. If unable to unland, contact Foreman/Engineer. **Barrier Management** Fluid will be the only barrier while unlanding casing. Stop and review JSA.
46	Install BOP on casing head with 4-1/2" pipe rams. **Barrier Management** Fluid will be the only barrier while NU BOP. Stop and review JSA.
47	TOOH and LD all 4-1/2", 10.5# casing. Remove 4-1/2", 11.6# pipe rams and install 2-3/8" pipe rams.
48	<b>STUB PLUG</b>
49	RIH open-ended to 1550' cut. Establish circulation and pump 330 sx (1.21 yld) 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 750' in 7.875" bit size open hole with 55% excess factor.
50	Slowly pull out of cement, clean up around 500'.
51	Let set for a couple hours then do a soft tag
52	<b>SHOE PLUG</b>
53	<b>COA: Refer to shoe plug COA in approved Form 6</b>
54	From tag establish circulation. Contact engineer to confirm new volumes if needed.
55	MIRU cementers. Pump Shoe Plug: Pump 340 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 557' in 7.875" bit size open hole with 100% excess factor and 93' in 8-5/8" 24# with 0% excess factor. Cement will be from 800'-150'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
56	Pull out of cement. TOOH to 150'. Circulate tbq clean for a minimum of 2 bottoms up. TOOH. WOC.
57	<b>SURFACE PLUG</b>
58	MIRU WL. Tag the shoe plug with gauge ring or whatever. Tag has to be 193' or shallower. If it's good set 8-5/8" WL CIBP at 150' or tag. RDMO WL.
59	RIH to CIBP. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
60	MIRU cementers. Pump Surface Plug: Pump 45 sx (1.21 yld - 9.5 bbl or 54 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 150' in 8-5/8" 24# with 0% excess factor. Cement will be from 150'-Surface'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
61	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.
62	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.
63	Supervisor submit paper copies of all invoices, logs, and reports to Well Services Engineering Specialist.

<b>64</b>	Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
<b>65</b>	Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
<b>66</b>	Welder cut casing minimum 5' below ground level.
<b>67</b>	Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
<b>68</b>	Obtain GPS location data and provide to GPS Teams page and OXY GIS database.
<b>69</b>	Back fill hole with fill. Clean location, and level.
<b>70</b>	Submit Form 6 Subsequent Report to Colorado ECMC ensuring to provide 'As performed' WBD identifying operations completed.