

OCCIDENTAL PETROLEUM CORPORATION

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

8/20/2021

**PLUG and ABANDONMENT PROCEDURE**

DACONO 30-2

API: 05-123-33814



**Step Description**

1	Review Previous Open Wells Reports/Well History. If you have questions or concerns, contact Foreman/Engineer.
2	<b>COA: Provide 48 hour notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.).</b>
3	Notify Automation Removal Group at least 24 hours prior to rig move. Request they catch and remove plunger, isolate production equipment, and remove any automation prior to rig MIRU.
4	MIRU Slickline. Pull production equipment and tag bottom. Record tag depth, casing/tubing pressures and fluid level in Open Wells. Directional Survey was run on 02/25/12. RDMO Slickline.
5	Prepare location for base beam equipped rig. Install perimeter fence as needed.
6	<b>COA: Verify Form 17 (State Bradenhead Test) has been run within 60 days of RU.</b>
7	<b>Refer to the Rockies Well Services Guidelines document whenever rigging up BOP and WL, or whenever tripping in or out of the well. Consult with Foreman/Engineer before deviating from these guidelines.</b>
8	Upon RU, check and record bradenhead pressure. If bradenhead valve is not accessible, re-plumb so that valve is above GL. Blow down bradenhead and leave open during working hours. Re-check pressure each day and input value in the "Casing press." box in Open Wells.
9	MIRU WO rig. Verify BOP and wellhead rating, inspect for appropriate API standards, pressure test BOP. Kill well as necessary using biocide treated fresh water. ND WH. NU BOP. Unland tbg. Release packer set at 8018'. <b>**Barrier Management**</b> Fluid will be the only barrier while NU BOP. Stop and review JSA.
10	TOOH and SB 8080' of 2-3/8" tbg. LD remaining 2-3/8" tbg and packer.
11	MIRU WL. PU and RIH with (4-1/2", 11.6#) gauge ring to tag sand fill on CIBP at 8710'. POOH. If tag is shallower than 8710', notify engineering for update to plugging orders.
12	PU and RIH with (4-1/2", 11.6#) CIBP and set at +/- 8080' (collars at 8044' & 8087'). POOH. RDMO WL.
13	TIH with 2-3/8" tbg to 8080'. Circulate all gas out of well. PT CIBP to 500 psi for 15 minutes.
14	MIRU Cementers. Pump Niobrara Balance Plug: Pump 10 sx (2.8 bbl or 16 cf) of the Niobrara Cement blend (15.8 ppg & 1.52 cf/sx). Volume based on 175' inside 4-1/2", 11.6# production casing with no excess. Cement will be from 8080'-7905'.
15	Pull out of cement. TOOH to 4750' laying down tbg.
16	Pump Sussex Plug: Pump 10 sx (2.8 bbl or 16 cf) of the Niobrara Cement blend (15.8 ppg & 1.52 cf/sx). Volume based on 175' inside 4-1/2", 11.6# production casing with no excess. Cement will be from 4750'-4575'.
17	Pull out of cement. TOOH to 2000' laying down tbg.
18	<b>COA: Confirm and document static conditions in the well before placing the next plug. If there is evidence of pressure or fluid migration at any time after placing the Sussex plug, contact Engineering.</b>
19	Pump Upper Pierre Plug: Pump 10 sx (2.8 bbl or 16 cf) of the Niobrara Cement blend (15.8 ppg & 1.52 cf/sx). Volume based on 174' inside 4-1/2", 11.6# production casing with no excess. Cement will be from 2000'-1826'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
20	Pull out of cement. TOOH standing back tbg to 1050'. Reverse circulate using biocide treated fresh water to ensure the tubing is clean. WOC.
21	PU and TIH with mechanical cutter on 2-3/8" tbg. Cut 4-1/2", 11.6# casing at 980'. TOOH and LD cutter.
22	Attempt to establish circulation and circulate (64 bbl) with biocide treated fresh water.
23	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. <b>**Barrier Management**</b> Fluid will be the only barrier while unlanding casing. Stop and review JSA.
24	Install BOP on casing head with 4-1/2", 11.6# pipe rams. <b>**Barrier Management**</b> Fluid will be the only barrier while NU BOP. Stop and review JSA.
25	TOOH and LD all 4-1/2", 11.6# casing. Remove 4-1/2", 11.6# pipe rams and install 2-3/8" pipe rams.

26	TIH with spiral diverter tool on 2-3/8" tubing to 1050'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes (131 bbl) to clean up wellbore.
27	<b>COA: Verify and document that all pressure and fluid migration has been eliminated prior to placing the SC shoe plug at 1050'. If there is evidence of pressure or fluid migration, contact Engineering.</b>
28	Pump Stub Plug: Pump 85 sx (18.4 bbl or 103 cf) of the Upper AGM blend (1% CaCl & 4% Gyp, 15.8 ppg & 1.21 cf/sx). Volume is based on 70' in 4-1/2", 11.6# production casing with no excess. 34' in 7.875" bit size open hole with 100% excess factor. 201' in the 8-5/8", 24# surface casing with no excess. The plug is designed to cover 1050'-745'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
29	<b>COA: If cement was not circulated to surface, then WOC 4 hours. Tag TOC. TOC must be 896' or shallower. If tag is too deep or there is evidence of pressure or fluid migration, contact Engineering.</b>
30	Pull out of cement. TOO H to 340'. Reverse circulate tbg clean with fresh water. Load hole with 20 bbls of heated surfactant to clean surface casing walls, wellhead, and surface valves/lines. WOC 4 hours.
31	Circulate out heated surfactant with freshwater. TIH and tag cement to verify appropriate coverage above the surface casing shoe. Notify engineering if tag is low.
32	TOOH to 250' laying down tbg and swab fluid level down.
33	MIRU Cementers. Pump Surface Plug: Pump 75 sx (16.2 bbl or 91 cf) of the Upper AGM blend (1% CaCl & 4% Gyp, 15.8 ppg & 1.21 cf/sx). Volume based on 250' inside 8-5/8", 24# surface casing with no excess. Cement will be from 250' to surface. Verify and document cement to surface. Collect wet and dry samples of cement to be left on rig.
34	Pull out of cement. TOO H, LD all but one joint of 2-3/8" tbg. Circulate clean with water to ensure TOC is low enough for C&C team. TOO H and LD final joint of 2-3/8" tbg . RDMO cementers. ND BOP. Install night cap. RDMO WO rig.
35	Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@anadarko.com within 24 hours of completion of the job.
36	Supervisor submit paper copies of all invoices, logs, and reports to VWP Engineering Specialist.
37	Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
38	Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
39	Welder cut casing minimum 5' below ground level.
40	Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
41	Obtain GPS location data as per COGCC Rule 215 and send to rscDJVendors@anadarko.com.
42	Properly abandon flow lines per Rule 1103. File electronic Form 42 once abandonment is complete.
43	Back fill hole with fill. Clean location, and level.
44	Submit Form 6 to COGCC ensuring to provide 'As performed' WBD identifying operations completed.