

30-015-24653

AVALON DELAWARE UNIT 210

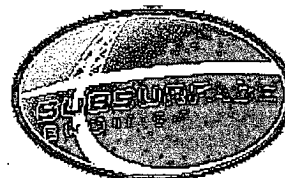
I-30-205-284

EXXONMOBIL US PRODUCTION
RECOMMENDED WELL-WORK PROCEDURE

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NOTE: Safety and protection of the environment are top priorities with ExxonMobil Corp. All work shall be done in accordance with company standards and policies as written in the USP Safety and Workover Manuals. Tailgate safety meetings are required daily and recorded on the drillers report. The scope, daily work plan, and potential hazards shall be discussed by all personnel on location. This procedure is a guide for the work to be done and should be followed. If different working conditions arise such that significant deviations from this procedure are necessary, then the ExxonMobil Workover Supervisor must be notified and approve of the changes. If the changes significantly increase the risks or scope of the job, then Management of Change procedures are to be followed and documented as soon as working conditions permit.

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CURRENT STATUS: The well currently has a nipple welded onto the 13-3/8" surface casing with 11" BOP's connected. Well still has gas migration from the surface/intermediate casing annulus and builds to 15-20 psig. Rig is currently on well and awaiting next steps.

OBJECTIVE: Plug and Abandon the wellbore according to NMOCD standards (stop gas migration).

Risk Assessment:

Injection well, no flow potential. Producing wells in the area have been known to have ± 9000 ppm H_2S concentration in their flow stream. Caution should be taken to prevent un expected H_2S exposure. All personnel on location should be aware of the H_2S content and equipped with proper PPE.

RECOMMENDED PROCEDURE:

1. Complete BJSA forms for work scope described in the following procedure and hold safety meeting.
2. Check for wellhead pressure if any gauge orifices are still accessible on the wellhead configuration. In its current state, the well has built to 15-20 psig over night. If the pressure exceeds this range please contact Houston SSE for additional
3. Rig up reverse swivel unit. Pick up and run in hole with wash pipe assembly : wash-over shoe, 2 joints of wash-pipe, and collars (if we have the string length to accommodate). All components of the assembly should have O.D. less than 11" and I.D. greater than 8-5/8" (in order to fit inside the BOP). If this wash-over sizing is not feasible, discuss with Houston SSE and Wellwork about performing this work without the BOP.
4. Wash down over the intermediate 8-5/8" casing 80 feet if configuration allows, we must obtain a minimum of 60 ft of wash-over. If cement cuttings are not being cleared, have gel additive available to mix with produced water to make the circulating fluid more viscous.
5. POOH with wash-over assembly after circulating milled cement out of the hole. Lay down the string and pick up mechanical casing cutters. RIH to 3-5 ft above the deepest washed depth and cut the 8-5/8" intermediate casing.

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6. POOH with the mechanical casing cutter.
 7. ND BOP (if you have not done so already) and remove from wellbore.
 8. RIH and spear the cut 8-5/8" intermediate casing and remove it from the wellbore. Depending on the length of intermediate casing, it may be necessary to rest it in the slips and cut it in order to safely lay it down (if the length of cut casing is in excess of approximately 65 ft – rig can pull doubles).
- *NOTE: Please confirm approval from NMOCD (either with email or written consent from NMOCD) regarding the plugging method described in the following steps (7-9) as it deviates from the required state form which states that cement must be placed continuously from 200 ft to surface.**
9. NU BOP and pick up inflatable packer. Ensure that the unset O.D. of the inflatable packer is less than 11" then RIH and set at approximately 40 ft.
 10. Pressure-test the inflatable packer to **no more** than 300 psig. Hold the test for a minimum of 15 minutes and note any leak-off.
 11. If plug does not have any leak-off and no gas migration is observed get approval from NMOCD to set cement on top of the plug and monitor again for gas migration as cement cures for a minimum of 24 hours. If no migration is present, notify NMOCD again of the completion of the plug and abandonment.
 12. Once NMOCD has approved of P&A completion, RDWSU. Have welder install cap and well marker as required by the NMOCD.

Csg O.D. (in)	Grade	Weight (lb/ft)	Csg I.D. (in)	Burst (psi)	Collapse (psi)	Body Yield (1000's lbs)
20	H-40	94	19.125	1530	520	1077
13 3/8	J-55	68	12.415	3450	1950	1069
8 5/8	J-55	24	8.097	2950	1370	381
5 1/2	J-55	15.5	4.95	4810	4040	248

Table 1: Casing Information

Wellwork Manual References (Jan. 2009 3.0 Revision):

It is important to be familiar with the following sections of the Wellwork Manual in order to safely execute this work.

4.3 Barrier Philosophy**5.12 Well Control Equipment Testing Requirements****6.3 Wireline Safety****8.0 Perforating****10.3 Tubing****10.3.1 Pipe Handling, Transportation, and Storage****10.3.3 Running and Pulling Tubing**

Approved By

[Signature]
NMOCD

11/29/2010