PLUG AND ABANDOMENT PROCEDURE

HSR-BOHLING FEDERAL 10-7A

Step	Description of Work
1	Provide 48 hr notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.). Call IOC (970-506-5980) at least 24 hr prior to rig move. Request they isolate production equipment and remove any automation prior to rig MIRU.
2	Prepare location for base beam equipped rig. Install perimeter fence as needed.
3	Check and record Bradenhead pressure. If Bradenhead valve is not accessible, re-plumb so that valve is above GL.
4	MIRU Slickline Services. Drift and tag to TD. Run SBHPS (Static Bottom Hole Pressure Survey) through the end of tubing (2-3/8" tbg landed at 7782') to mid perf at 7828', making a stop at mid-perf then PUH making gradient stops every 1000'. RDMO Slickline. Send results to Sabrina.Frantz@Anadarko.com and make a report in Openwells noting mid-perf pressure, and all subsequent pressures and fluid level.
5	MIRU, kill as necessary using clean fresh water with biocide. ND WH. NU BOP. Unseat landing jt, LD. Note: The well failed a tubing PT in 2011 to 1000 psi. Plan on having to replace with yellow banded 2-3/8" tubing prior to setting the first plug.
6	Hydrotest out of the hole to 3000 psi and stand back good 2-3/8" tbg. Lay down bad tubing. Spot trailer with yellow-banded 2-3/8" tbg to have a total of ~7720' available.
7	MIRU WL. RIH w/ gauge ring for 4.5" 11.6# csg to 7800'.
8	RIH and Set 4.5" CIBP at 7720'. PT csg and CIBP to 1000 psi for 15 minutes. RDMO WL.
9	Notify Cementers to be on call.
10	RIH 2-3/8" tbg to CIBP at 7720'. Tag CIBP and pick up 5'.
11	RU Cementers. Pump Niobrara plug consisting of 97 cu-ft (70 sx)"G" w/ 20% silica flour , 0.4% CD -32, 0.4% ASA -301 and R-3 to achieve 2:30 pump time mixed at 15.8 ppg and 1.38 cuft/sk. Calculated top in the 4-1/2" csg is 6700'.
12	PUH to 6400' and circulate hole clean. PUH to 5050' laying down tbg.
13	Pump Sussex Balanced plug: 80 cu-ft (70 sks) "G" w/ 0.4% CD-32, 0.4% ASA-301 with CaCl2 as necessary. Mixed at 15.8 ppg, 1.15 cuft/sack. Calculated top of plug at 4150' based in the 4-1/2" csg covering the Stage Tool at 4935 and sqz holes at 4938'. PUH to ~3800' and circulate hole clean. WOC per cement company recommendation. RD Cementers.
14	RIH and tag top of plug at 4150'. POOH, standing back 42 jts and laying down the rest.
15	MIRU Wireline. Cut off 4-1/2" csg at 1210'. RDMO WL. Circulate using water and biocide to remove all gas from wellbore.

16 ND BOP and wellhead. Install a BOP on surface casing head with 4-1/2" pipe rams. Install 3000 psi ball valves on both casing head outlets. Install a choke or choke manifold on one outlet.

17 POOH and LD 4-1/2" csg. Remove the 4-1/2" pipe rams and Install 2-3/8" pipe rams.

18 RIH w/ 2-3/8" WS open ended 100' past the 4-1/2" csg stub to 1310'.

19 MIRU Cementers. Pump Fox Hills Balanced plug: Pump mud flush of 10 bbls SAPP followed by 20 bbls water ahead of 306 cu-ft (230 sx) Type III w/cello flake and CaCl2 as deemed necessary, mixed at 1.33 cf per sack, 14.8 ppg. POH and WOC per cementing company reccomendation. Plug size is based on 8.5" hole with 40% excess covering 1310' to shoe of surface casing at 822' plus capacity of surface casing to 620'. PUH to 150' and Circulate out any excess cmt. TOH and WOC per cement company recommendation.

20 RIH and tag top of plug. Plug needs to be tagged at 622' or shallower. POOH and LD 2-3/8" tbg.

21 RU wireline. Run and set CIBP in the 8-5/8", 24# surface casing at 80'. PT CIBP and surface casing to 1000 psi for 15 minutes. Assuming successful test, RD wireline. RDMO workover rig.

22 Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@anadarko.com within 24 hrs of completion of the job.

23 Supervisor submit paper copies of all invoices, logs, and reports to Joleen Kramer.

24 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.

25 Excavate hole around surface casing enough to allow welder to cut casing minimum 5’ below ground level.

26 Welder cut casing minimum 5' below ground level.

27 Fill casing to surface using 4500 psi compressive strength cement, (NO gravel).

28 Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.

29 Properly abandon flowlines per Rule 1103. File electronic Form 42 once abandonment complete.

30 Back fill hole with fill. Clean location, level.

31 Submit Form 6 to COGCC ensuring to provide 'As performed' WBD identifying operations completed.

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