

# HALLIBURTON

Global Radiation Safety  
3000 N. Sam Houston Parkway East · Plaza 1, Office 5320M  
Houston, Texas 77032-3219

RECEIVED

DEC 13 2017

December 12, 2017

DNMS

U.S. Nuclear Regulatory Commission – Region IV  
612 East Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

Attn: Division Director - DNMS

Re: **Notification of Well Logging Sealed Source Abandonment  
Halliburton Energy Services, Inc.  
USNRC License No. 41-01068-07**

This letter comprises the required 30-day written notification of source abandonment as required by 10 CFR 39.77(d). This is a follow-up to the communications between Halliburton and NRC Region IV in which permission to proceed with the abandonment was granted.

Date of Occurrence: 16 November 2017

Company Name: Chevron  
1500 Louisiana St.  
Houston, TX. Anchorage, Alaska, 99503

Well Name & Registration No.: OCS-G-200082 SS002 ST00 BP00  
903923563

Well Location: Discoverer Inspiration  
Gulf of Mexico, USA

Sources Abandoned: One 15.0 Curie Am-241/Be doubly-encapsulated radioactive sealed source, solid, special form. Eckert & Ziegler, CESIO Model LWD4173. Source Serial Number EZ15058.

One 2.0 Curie Cs-137 doubly-encapsulated radioactive sealed source, solid, special form. AEA Technology QSA, Inc. Model CDC.CY13. Source Serial Number 2856GW.

Logging sources held within the source ports contained within the sidewalls of heavy pipe wall Measurement While Drilling (MWD) logging tools.  
Sources threaded into the source ports and torqued down to 80 ft-lb.

Immobilization method: Cement plug on top of the fish. The cement plug also serves as the kickoff device.

Results of Efforts to Immobilize and set sources in place: Abandonment procedure successfully completed on 11-September-2017

Depth of Well: 25,987' MD / 23,682' TVD

Depth of Bottom of Fish: 25,984' MD / 23,728' TVD

Depth of Sources: Am-241/Be source located at 25,793 ft. MD  
Cs-137 source located at 25,811 ft. MD

Depth of Top of Fish: 24,400 ft. MD / 22,356 TVD

Depth of Bottom of Cement Plug: 24,360 ft. MD / 22,323 TVD

Depth of Top of Cement Plug: 23,660 ft. MD / 21,769 TVD

Description of Recovery Attempts: 11/16/17 @ 22:08 - while drilling ahead BHA torqued up and well went on total loss of returns. Closed annular and monitored well. Pumped 100 barrels of 60 lb barrel LCM .monitored well and opened choke line and saw well was static and pipe was stuck. 11/17&18/17 continue to fill pipe as required and wait on ATES assembly, hold PSJM prior to PU and MU ATES assembly Pressure test lower TIW valves Get Halliburton wireline ready 11/19/17 Install grease head on WL entry sub pressure test grease head run in hole with wireline to see where the pipe is stuck 11/19/17 Log down from 24,400' DPM to 24,992' DPM at 50 fpm. Work pipe from neutral weight (960K) to 110K over pull (1070K) three times and return to neutral weight. Log up from 24,992' DPM (top of jars) to 24,400' DPM, change in tool response noted at 24,828' DPM Log down from 24,400' DPM to 25,487' DPM. Work pipe from neutral weight to 110K overpull three times and return to neutral weight. Log up from 25,487' DPM (XO between HWDP and drill collars) to 24,400' DPM, began observing abnormal readings in log at 25,300' (first joint of HWDP above Warrior Wipr Sub). Reset tool

and log indicated stuck pipe through top of HWDP at 24,622' DPM. 11/20/17 Line up ball launcher and launch first 7" nerf ball. Schlumberger Pumped 8 bbls of drill water at 5 bpm. Open upper FOSV and rig pump 20 bbls. of 15.5 ppg spacer at 5 bpm. Swap suction and rig displace with 592 bbls. of 12.5 ppg SBM at 340 gpm with 1,430 - 1,880 psi. Slow pumps down to 170 gpm with 960 - 1,350 psi. and pump remaining 100 bbls. to displace cement to depth. Wait on cement until cement reaches a compressive strength of 500 psi. 11/22/17 Run in hole with wireline, hole still taking fluids and cement. Pressure test cement, test failed will squeeze and retest. 11-23-17 Run cable head through ATES & test lubricator M/U bridge plug assy RIH w/ bridge plug to ~24,900' Set bridge plug at ~24,900' POOH w/ bridge plug running tool L/D bridge plug running tool M/U pipe cutting tool & test lubricator RIH w/ pipe cutting tool to ~24,900' 11-24-17 L/D bridge plug running tool M/U pipe cutting tool & test lubricator RIH w/ pipe cutting tool to ~24,900' Log on depth & sever drill string POOH w/ pipe severing tool Sweep Stack & flow check well Circulate Bottoms Up TOH w/ cut drill string 11-25-17 Wait on equipment M/U bridge plug assy & fill reservoir RIH w/ bridge plug to ~24,700' Set bridge plug at ~24,700' 11-26-17 POOH w/ bridge plug running tool L/D bridge plug running tool Test bridge plug M/U pipe severing tool & test lubricator RIH w/ pipe severing tool to ~24,600' Log on depth & sever drill string 11-27-17 The rig ran a chemical cutter in the hole on wire line yesterday morning and functioned tool. The wire line got stuck for app 4 hours and had to most likely pull out of rope socket. The standpipe pressure rose 400 Psi while performing 11-28-17 POOH w/ wire line 11-29-17 M/U Free Point Tool & test lubricator RIH w/ Free Point Tool to ~24,700' Determine Stuck Point POOH w/ Free Point Tool R/D Free Point Tool 11-30-17 RIH wire line with bridge plug Set bridge plug at ~24,450' POOH wire line Test bridge plug to 1,500 psi MU cutter tool and RIH Break out ATES & L/D running tool M/U MPC Assembly 12-1-17 RIH w/ MPC

Assy. Log on depth & cut drill string POOH w/  
MPC Assy. Break out ATES & L/D MPC Assy.  
Transfer ATES to AFT M/U single & Work Pipe  
Free Circulate B/U through Choke 12-2-17  
Circulate B/U through Choke Sweep Stack &  
flow check well Circulate Bottoms Up 12-3-17  
Circulate Bottoms Up TOH & Space Out  
Across Stack Test BOP TOH to Surface Slip &  
Cut 12-4-17 TIH with mule shoe...stopping to  
test BOPs. Continue TIH to top of fish.  
Circulate, then spot cement plug above fish.  
Pumped cement starting at 24390' MD to  
approximate TOC at 23600' MD. Pull 10 stands  
to circulate at time

Warning Plaque:

A permanent identification warning plaque has  
been fabricated and provided to Chevron for  
mounting at the wellhead as practicable. See  
Attachment 1 for a representation of the plaque  
to be provided.

Sincerely,



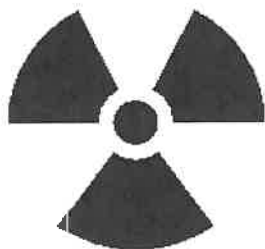
12/12/17

John Snow  
Sr. Radiation Safety Officer  
Halliburton Energy Services, Inc.  
*Email: [john.snow@halliburton.com](mailto:john.snow@halliburton.com)*

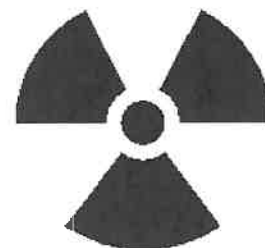
Attachment: (1) Representation of Warning Plaque

ATTACHMENT 1  
*Representation of Permanent Warning Plaque*

**Chevron U.S.A. Inc.**  
**OCS-G 20082 SS002 ST00BP00**  
**60-811-40690-00**



**CAUTION**



**ONE 555 GBq (15 Ci) AM-241Be RADIOACTIVE  
SOURCE AND ONE 74GBq (2 Ci) CS-137  
RADIOACTIVE SOURCE ABANDONED  
December 04, 2017 AT 25,793 FT. MD / 23,525 FT.  
TVD AND AT 25,811 FT. MD / 23,539 FT. TVD. PLUG  
BACK DEPTH 23,660 FT. MD / 21,769 FT. TVD.  
AVOID BORE BELOW PLUG BACK, AND DO NOT  
RE-ENTER THIS WELL BELOW PLUG BACK  
BEFORE CONTACTING  
THE NUCLEAR REGULATORY COMMISSION**