

Schlumberger Technology Corporation  
Radiation Explosives Compliance  
300 Schlumberger Drive, MD 121  
Sugar Land, TX 77478

**Schlumberger**

November 18, 2016

Michael Vasquez  
United States Nuclear Regulatory Commission  
Region IV  
1600 East Lamar Blvd  
Arlington, Texas 76011

RE: Source Abandonment for Highlands Natural Resources Helios 5-52-16-32

Dear Michael,

This letter is to confirm the abandonment of an irretrievable radioactive logging source in a well in accordance with 10 CFR §39.77(d). Information for this abandonment is attached.

Licensee: Schlumberger Technology Corporation (License# 42-00090-03)

If you have any questions or require additional information, please contact me at 281-285-8775 or [mclaughlin8@slb.com](mailto:mclaughlin8@slb.com).

Sincerely,



Timothy P. McLaughlin  
Radiation Safety Officer  
Schlumberger Technology Corporation

## Source Abandonment - Highlands Natural Resources Well: Helios 5-52-16-32

Date of Occurrence: Declared irretrievable: October 20, 2016

### Source #1

Identification: 63 GBq, CS-137, Gamma Ray Source, Serial # A5416

Manufacturer: QSA Global

Model: GSR-J (CDC.CY3)

Depth: 2300 ft MD

Well Identification Company: Highlands Natural Resources

Well: Helios 5-52-16-32

Field: Wildcat

County: Custer

API Number: 25-017-21178

Seal Results: On October 21, 2016, the rig ran in hole with drill pipe and pumped enough cement to establish a cement plug 500 ft in length (2273 ft MD to 1773 ft MD). After waiting on cement to cure the rig ran in the hole with a bit and drill pipe and tagged the top of cement at 1773 ft MD. The rig then dropped a bit in the hole to serve as a deflection device, and permanently abandoned the well.

Recovery Attempts: On October 17, 2016, at approximately 11:00 am a wireline tool string containing a single logging source became disconnected from the wireline (pulled-off) near surface and fell back into the well. The logging tool was being pulled out of the well after several unsuccessful attempts to reach the bottom of the well at 3058 ft. The logging tool never descended below approximately 2300 feet. An attempt to fish the tool with a standard overshot failed to reach below 2270 ft and failed to retrieve the logging tool. The rig then made several unsuccessful attempts to break through the obstruction at 2270 ft, but was advised not to drill as this might jeopardize the integrity of the source. Recovery attempts were discontinued due to the risk of jeopardizing the source integrity.

Depth of Well: 3058 ft MD

Identification Plaque as required by 10 CFR §39.15(a)(5)(iii) will be provided for attachment to wellhead, if practical.

Reports: No other agency will receive a copy of this report.

Initial Contact: By telephone with Michael Vasquez on October 20, 2016 09:22 AM.

## Highlands Natural Resources Helios 5-52-16-32

