

May 20, 2016

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, IL 60090

RE: 9 West Illinois St. Thorium Monitoring – City of Chicago Department of Water Management

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc. (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and repair of a water line at 9 West Illinois St. in Chicago, Illinois. The monitoring was performed on May 17, 2016. All activities were conducted under the guidance of document *SET General Guidance for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed by Brian Schmidt using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 126496) with attached 2"x2" NaI probe with 6" lead shield. The instrument was calibrated on October 15, 2015. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,054 counts per minute (cpm).

The average background count rate for this location was found to be 2,821 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by entering the excavation after each 18 inch lift and recording the highest count rate for the floors and walls to an excavation depth of 3 feet. Soil removed beyond 3 feet deep to a maximum depth of 9.5 feet was screened as it was removed from the excavation. Soil and debris removed from the excavation was loaded directly into a truck and was not stockpiled onsite.

The maximum gamma count rate for each 1.5 foot lift was recorded on the attached Radiation Survey Forms. The count rates in the excavation ranged from 2,600 cpm to 3,600 cpm. No count rates were found at any time that exceeded the threshold limit of 7,054 cpm.

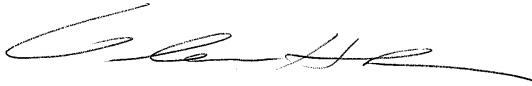
Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

You will need to forward a copy of this report to the City of Chicago Department of Public Health (Attn: Rahmatunsia Begum) with the CDOT Permit Number in the subject line. Additionally, a copy of this report should be submitted to USEPA as required.

Thank you for your assistance with this project. If you have any questions or need additional information please call me at (815) 485-6161.

Sincerely,
Stan A. Huber Consultants, Inc.

A handwritten signature in black ink, appearing to read 'G. Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: 9 W. ILLINOIS ST. - CoC WATER - WATER SERVICE LEAK REPAIR EXCAVATION ROW RAD SURVEY

Date: 5/17/16

Technician: BRIAN SCHMIDT

Inst Model: LUDLUM-2221

Serial No. : 126496

Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: 0-114"

Background 2821 cpm

Action Level: 7054 cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.

