

May 24, 2019

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: 130 E. Ohio St. Thorium Monitoring – City of Chicago Department of Water
Management
CDOT Permit: 1098659

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for replacement of a City of Chicago Department of Water Management manhole in the alley north of 130 E. Ohio St. in Chicago, Illinois. The monitoring was performed by Jeremy Kieser, SAHCI Health Physicist, on May 21, 2019. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126497) with attached Ludlum Model 44-10 2"x2" NaI detector (w/ 6" collimated lead shield). The instrument was calibrated on October 15, 2018. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,319 counts per minute (cpm).

The average background count rate for this location was measured as 2,288 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation and recording the highest count rate for the floor and walls to an excavation depth of 10 feet below ground surface. Material excavated below 3 feet below ground surface was surveyed in the excavator bucket prior to loading in the truck for disposal.

The maximum gamma count rate for each 18-inch lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 2,500 cpm to 2,800 cpm. No count rates were found at any time that exceeded the threshold limit of 6,319 cpm.

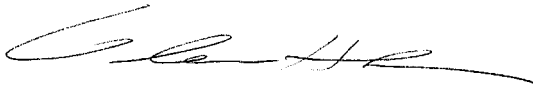
Additional Monitoring

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.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, 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 'Glenn Huber', written in a cursive style.

Glenn Huber, CHP
President

