

September 30, 2019

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: 200 E. Lower Randolph St. Thorium Monitoring – City of Chicago Department of
Water Management
CDOT Permit: 1157154

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for repair of a drain into a storm sewer catch basin at 200 E. Lower Randolph Street in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on September 18, 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. 127242) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on August 6, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,673 counts per minute (cpm).

The average background count rate for this location was measured as 2,217 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 surrounding the existing storm sewer drain and recording the highest count rate for the floor and walls to an excavation depth of 2 feet below ground surface. All asphalt, concrete, and soil were loaded directly into a truck for disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 2,300 cpm to 2,800 cpm. No count rates were found at any time that exceeded the threshold limit of 6,673 cpm.

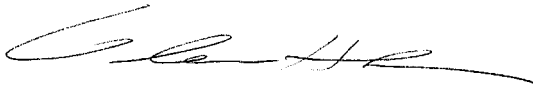
Additional Monitoring

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 'G. Huber', written in a cursive style.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: DWM 200 E. Lower Randolph St. (SET) CDOT #1157154

Date: 9/18/19

Technician: Brian Schmidt

Inst Model: Ludlum 2221

Serial No. : 127242

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

Lift Elevation: 0 - 24"

Background 2217 cpm

Action Level: 6,673 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.

