



July 27, 2022

976914

Angel Camacho  
SET Environmental  
450 Sumac Road  
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Transportation  
CDOT Permits: 1536857, 1527635, 1527384  
E. South Water St. between N. Michigan Ave. and N. Stetson Ave.

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during City of Chicago Department of Transportation fence post drilling on Lower E. South Water St. between N. Michigan Ave. and N. Stetson Ave. in Chicago, Illinois. The monitoring for this task was performed by Brian Schmidt, SAHCI Health Physics Technician, on June 28, 2022. 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 May 3, 2022. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,208 counts per minute (cpm).

The background count rate for this location was measured at 2,112 cpm.

#### Surface Gamma Scans – Fence Post Borings

Gamma surface scans were performed on 21 borings along South Water Street using the Ludlum Model 2221 Scaler / Ratemeter detailed above. Survey data was collected by lowering the detector into each hole and recording the maximum observed count rate. Any spoils generated during the installation of each 4-foot depth boring were also scanned.

The maximum gamma count rate for each boring was recorded on the attached Radiation Survey Form. The count rates for the borings ranged from 2,300 cpm to 4,600 cpm. No count rates were found at any time that exceeded the instrument specific count rate threshold limit of 7,208 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', with a long horizontal flourish extending to the right.

Glenn Huber, CHP  
President

## Radiation Survey Form

Location/ Project ID: FH PASCHEN - S. WATER St. FENCE Post DRILLING

Date: 6/28/22

Technician: BRIAN SCHMIDT

Inst Model: LOWEN-2221

Serial No.: 126497

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

Lift Elevation: 0-4'

Background 2112 cpm

Action Level: 7208 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.

