

November 13, 2024

705354

Angel Camacho  
SET Environmental  
450 Sumac Road  
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Transportation  
CDOT Permit No. 1988301 – 415 N. Dearborn St.

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiological monitoring during the removal and replacement of the alley apron and sidewalk at 415 N. Dearborn St. in Chicago, Illinois. The monitoring was performed by Glenn Huber, SAHCI Health Physicist, on November 6, 2024. 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. 134542) with attached 2"x2" NaI probe (w/ 6" collimated lead shield). The instrument was calibrated on May 7, 2024. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,228 counts per minute (cpm).

The average background count rate for this location was determined to be 1,879 cpm.

#### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by scanning the surface of the existing sidewalk area before and after removal. The sidewalk area was approximately 46 feet long by 14 feet wide. Concrete, stone, and soil were loaded directly into a truck for offsite disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates ranged from 1,900 cpm to 3,100 cpm to a maximum depth of 18 inches below ground surface. No count rates were found at any time that exceeded the instrument specific count rate threshold of 7,228 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.



Glenn Huber, CHP  
President

## Radiation Survey Form

**Location/ Project ID:** 415 N. Dearborn St. Sidewalk Apron Replacement CDOT #1988301

**Date:** 11/6/24

**Technician:** Glenn Huber

**Inst Model:** Ludlum 2221

**Serial No.:** 134542

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

**Lift Elevation:** Surface to -6"

**Background** 1,879 cpm

**Action Level:** 7,228 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.

