



June 14, 2023

983827

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Water Management
CDOT Permit 1826661 – 500-731 N. St. Clair St.

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during sidewalk restoration on N. St. Clair St. between Illinois St. and Grand Ave. This area was previously disturbed for the installation of a water main by the City of Chicago Department of Water Management. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on June 15 and 16, 2023. All activities were conducted under the guidance of the document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 9, 2023. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 5,986 counts per minute (cpm).

The average background count rate for this location was measured at 1,880 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by performing a surface scan of the sidewalk area before and after removal and recording the highest count rate to a maximum depth of 6 inches below ground surface.

The maximum gamma count rates for each lift were recorded on the attached Radiation Survey Forms. The count rates in the excavations ranged from 1,700 cpm to 3,900 cpm. No count rates were found at any time that exceeded the threshold limit of 5,986 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: DWM - St. Clair + Grand - Sidewalk Restoration - Low Radiological Soil Survey

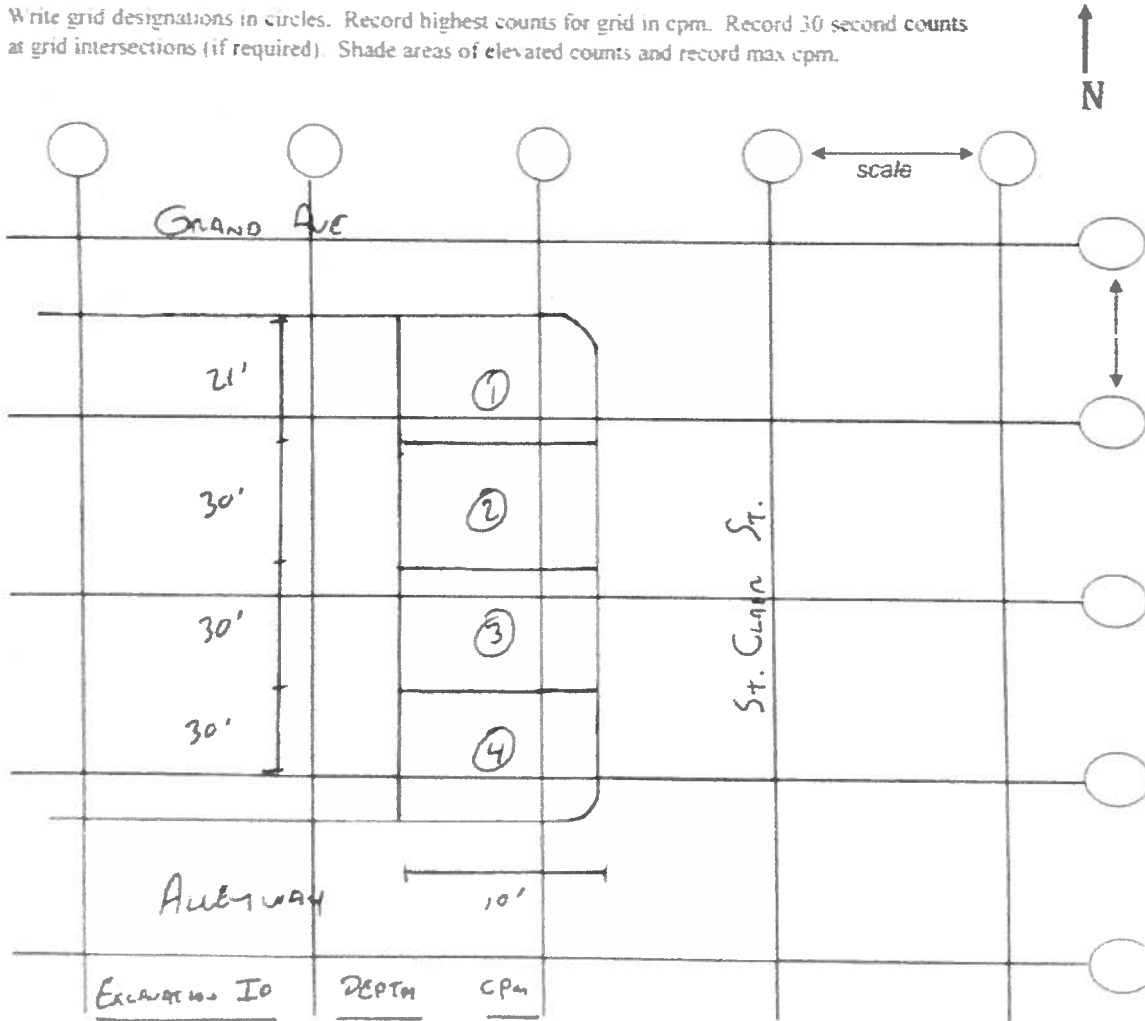
Date: 6/15-16/2023 Technician: Brian Schmidt

Inst Model: Lowm-2221 Serial No.: 126496

Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded Lift Elevation: 0-6"

Background 1880 cpm Action Level: 5986 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.



Excavation ID	DEPTH	CPM
①	0-6"	1700
	6-24"	2100
②	0-6"	2100
	6-24"	3300
③	0-6"	2200
	6-24"	3500
④	0-6"	1900
	6-24"	3900