

March 27, 2025

Revised 4/5/25 GAH

705363

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Water Management
CDOT Permit: 2055737 100 E. Grand Ave. (Emergency Dig)

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for an emergency repair of a Chicago Department of Water Management catch basin at 100 E. Grand Ave. in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physicist, on March 20, 2025. 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 7, 2024. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,669 counts per minute (cpm).

The average background count rate for this location was 1,765 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 and walls of the excavation to a depth of 66 inches below ground surface. Excavated material was 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 ranged from 1,400 cpm to 2,600 cpm. No count rates were found at any time that exceeded the threshold limit of 6,669 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: 100 E Grand Ave. Catch Basin Repair - DWM

Date: 3/20/2025

Technician: Mark Dewald

Inst Model: Ludlum 2221

Serial No. : 126497

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

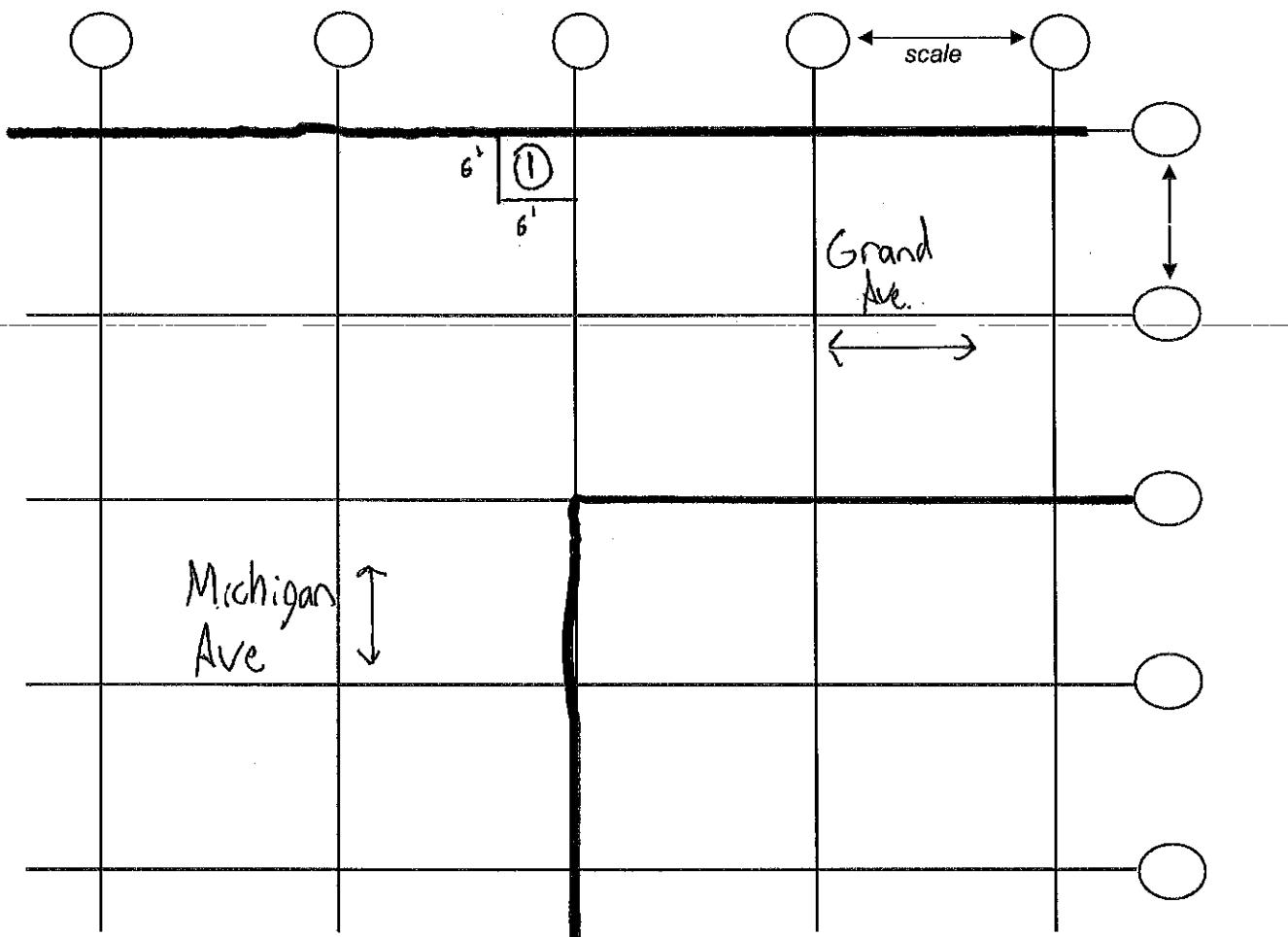
Lift Elevation: Surface to -66" BGS

Background 1,765 cpm

Action Level: 6,669 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.

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	0-12"	12-30"	30-48"	48-66"	60-78"
Area 1	1400	1500	1800	2100	2600