

February 1, 2023

979668

Angel Camacho
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: Thorium Monitoring: City of Chicago Department of Assets, Information, and Services (AIS)
CDOT Permit: 1766055: 45 - 95 E. Riverwalk South

Dear Mr. Camacho:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during landscape remodeling at 45 – 95 E. South Riverwalk. The monitoring was performed by Mark Dewald and Jeremy Kieser, SAHCI Health Physicists, on January 24 to 26, 2023. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using the following instruments:

- Ludlum Model 2221 Survey Meter (serial no. 99147) 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 instrument 99147 is 6,936 counts per minute (cpm).
- Ludlum Model 2221 Survey Meter (serial no. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 3, 2022. The USEPA action level of 7.1 pCi/g total thorium for instrument 132844 is 8,083 cpm.

The background count rate for this location ranged from 1,623 cpm to 2,058 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeters described above. Survey data was collected by entering the excavation and recording the highest count rate for the floor and walls to a depth of 42 inches below ground surface.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 2,300 cpm to 3,100 cpm. No count rates were found at any time that exceeded the threshold limits of 6,936 cpm and 8,083 cpm, respectively.

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: 95 E. Riverwalk - CSI

Date: 1/24-26/23

Technician: Mark Dewald; Jeremy Kieser

Inst Model: Ludlum 2221

Serial No. : 99147; 132844

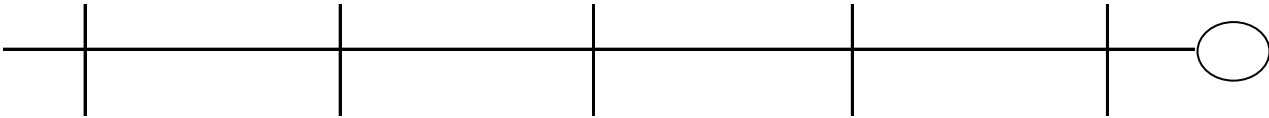
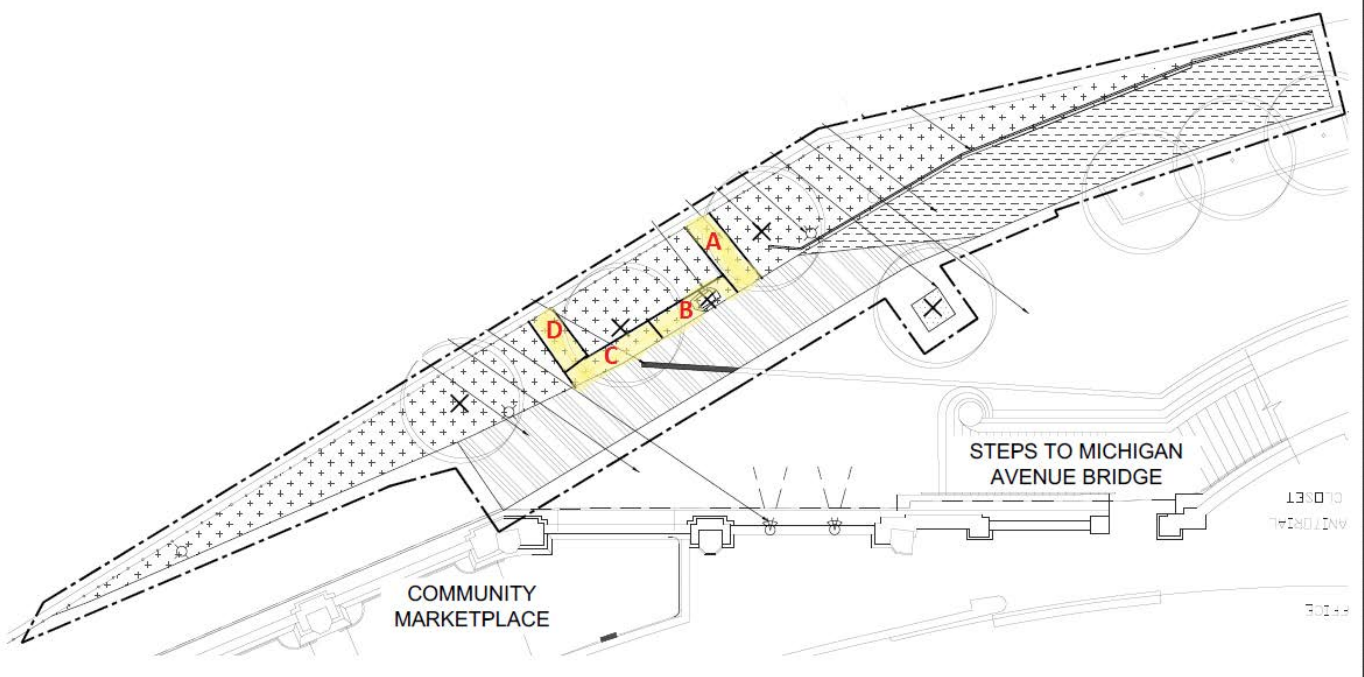
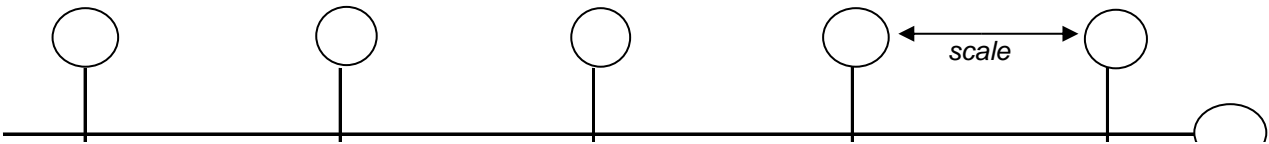
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface to -42" BGS

Background 1,623; 2,058 cpm

Action Level: 6,936; 8,083 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.



| | A | B | C | D |
|--------|------|------|------|------|
| 0-18" | 3000 | 3000 | 2700 | 2600 |
| 18-36" | 3100 | 2800 | 2400 | 2500 |
| 36-54" | 2600 | 2600 | 2300 | 2300 |
| 42-60" | 2600 | 2500 | 2600 | 2300 |

*Area A/B to 36" surveyed with SN 132844, all others with 99147