



July 26, 2019

949206

Mike Lanenga
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: 201-298 E. Erie St. Thorium Monitoring – City of Chicago Department of
Transportation
CDOT Permit: 1129077

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for repair of 4 manholes at 201-298 E. Erie Street in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on July 25, 2019. 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. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on August 6, 2018. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,391 counts per minute (cpm).

The average background count rate for this location was measured as 1,701 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation surrounding the existing manholes and recording the highest count rate for the floor and walls to an excavation depth of 1 foot below ground surface. All asphalt, concrete, and soil were 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 in the excavation ranged from 1,200 cpm to 2,200 cpm. No count rates were found at any time that exceeded the threshold limit of 7,391 cpm.

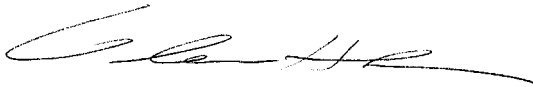
Additional Monitoring

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 'G. Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: CDOT 201-298 E. Erie St. CDOT Permit #1129077

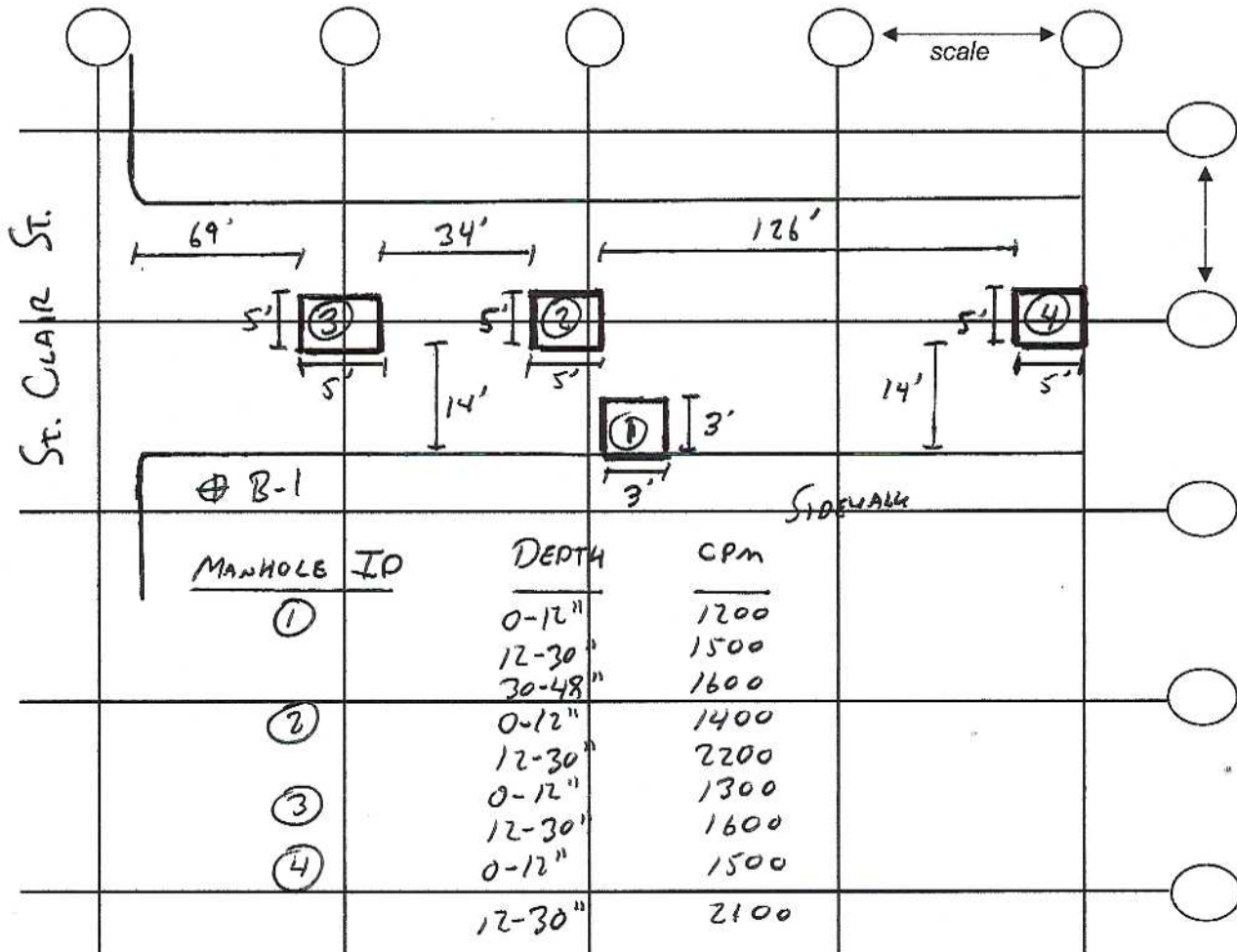
Date: 7/25/19 **Technician:** Brian Schmidt

Inst Model: Ludlum 2221 **Serial No. :** 132844

Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded **Lift Elevation:** surface -> 1' bgs

Background 1701 cpm **Action Level:** 7,391 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.



B-1 = 1701 cpm = BACKGROUND (1 MIN COUNT)

● Location of structure to be adjusted

▭ Limits of grinding and paving

