



May 4, 2021

Paul Muszynski
Electric Conduit Construction
816 Hicks Drive
Elburn, IL 60119

RE: Thorium Monitoring 120-165 E. South Water St.
CDOT Permit #1404360

Dear Mr. Muszynski:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and installation of a fiber and power conduit installation at 120-165 E. South Water St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on March 1 through March 3, 2021.

This project was not completed due to underground obstructions in the planned route of the conduit installation. This project is being redesigned and will resume at a later date.

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 last calibrated on July 28, 2020. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,592 counts per minute (cpm).

The background count rate for this location was measured as 1,771 cpm (average).

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 and recording the highest count rate for the floor and walls to a maximum excavation depth of 3 feet below ground surface. Soil was loaded directly into a vacuum truck for offsite 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 1,500 cpm to 3,800 cpm. No count rates were found at any time that exceeded the threshold limit of 7,592 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: ECC - MICHIGAN + S. LOWER WATER ST. - FIBER INSTALL - ROW RADIOLOGICAL SOIL SURVEY

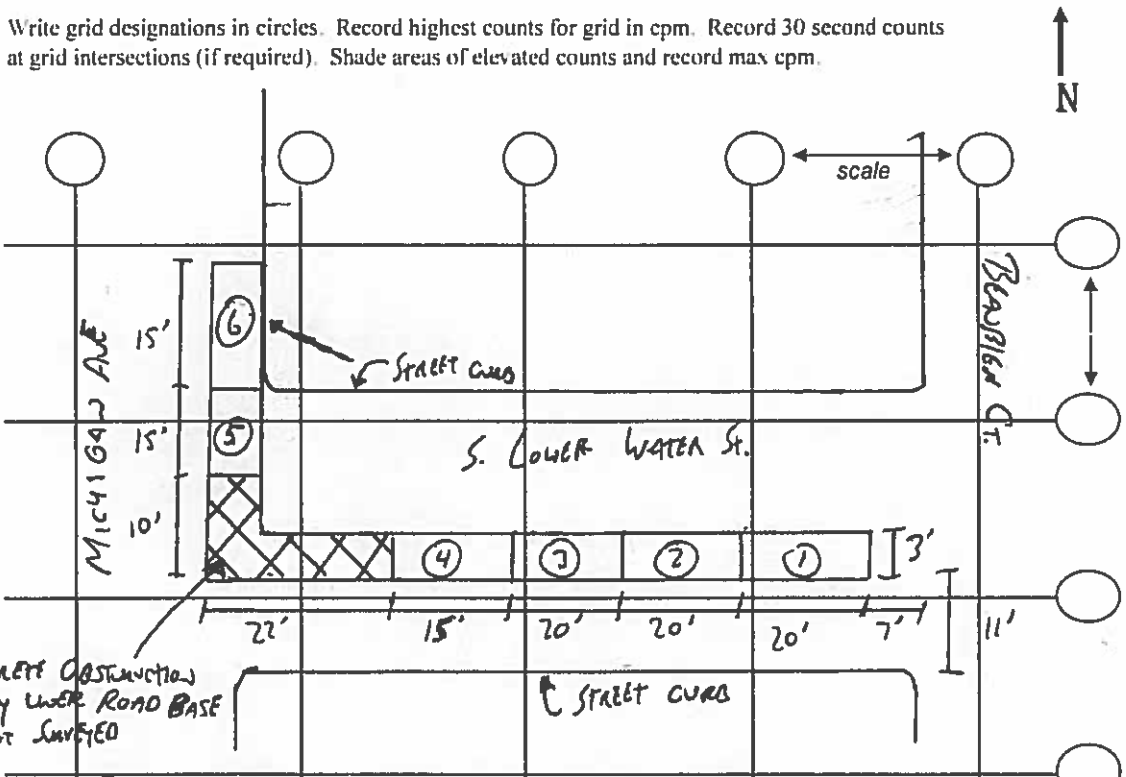
Date: 3/1-3/2011 Technician: BRIAN SCHMIDT

Inst Model: LUDLUM - 2221 Serial No.: 132844

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

Background 1771 cpm Action Level: 7592 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	Excavation ID	DEPTH	CPM
①	0-12"	1600	④	0-12"	1600
	12-30"	2400		12-30"	1900
	30-48"	2100		30-48"	2300
	36-54"	1900		36-54"	2400
②	0-12"	1800	⑤	0-12"	1800
	12-30"	2200		12-30"	2900
	30-48"	2400		30-48"	3800
	36-54"	2600		36-54"	3600
③	0-12"	1500	⑥	0-12"	1500
	12-30"	2100		12-30"	2000
	30-48"	2600		30-48"	2300
	36-54"	2900		36-54"	2700