



September 29, 2020

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

RE: Thorium Monitoring 60-105 E. Grand Ave. (E. Grand Ave. and N. Rush St.)  
CDOT Permit #1288161

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 optic and power conduit at 60-105 E. Grand Ave. in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physicist, on September 22, 2020.

#### 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 last calibrated on October 18, 2019. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,179 counts per minute (cpm).

The background count rate for this location was measured at 1,420 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 trench 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 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 1,400 cpm to 2,800 cpm. No count rates were found at any time that exceeded the threshold limit of 6,179 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: Grand & Rush - ECC

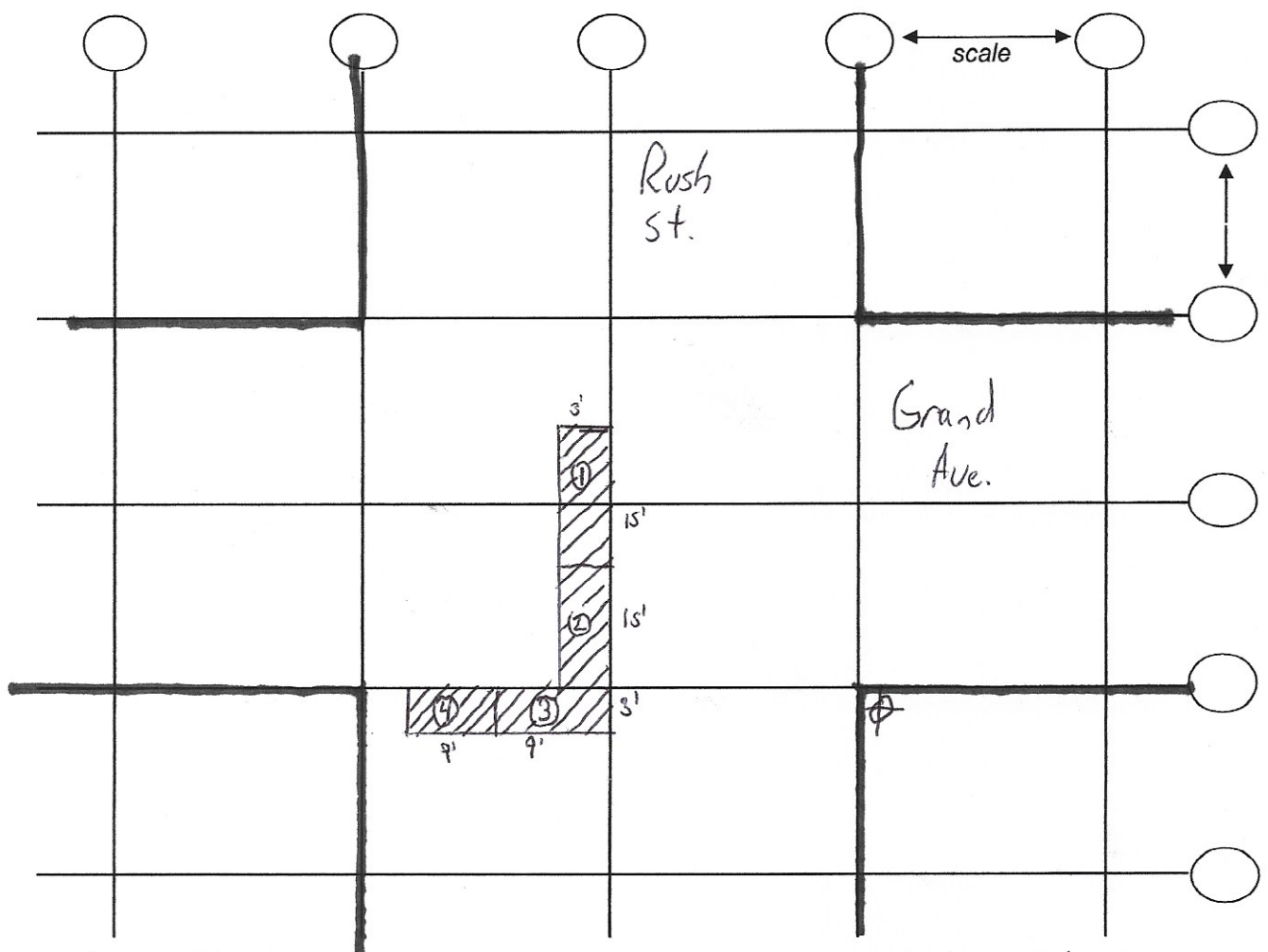
Date: 9/22/2020 Technician: Mark Devald

Inst Model: ludlum 2221 Serial No.: 126497

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

Background 1420 cpm Action Level: 6179 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.



Area	0-18"	18-36"	36-54"
1	1600	1800	2200
2	1500	2000	2800
3	1600	1800	1900
4	1400	1400	1900

⊕ → back ground location

▨ → excavated area