

Stan A. Huber Consultants, Inc.

Health Physics and Radiation Safety Services

200 North Cedar Road - New Lenox, Illinois 60451-1751 - (800) 383-0468 or (815) 485-6161 - FAX (815) 485-4433 - Email sahci@sahci.com - Home Page www.sahci.com

March 8, 2021

Steven Griffin
Electric Conduit Construction
816 Hicks Drive
Elburn, IL 60119

RE: Thorium Monitoring 350-360 E. Ohio St.

CDOT Permit #1406873

Dear Mr. Griffin:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and installation of a utility pole foundation at 350-360 E. Ohio Street in Chicago, Illinois. The monitoring was performed by Mark Dewald, SAHCI Health Physics Technician, on March 3, 2021.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 134542) with attached Ludlum Model 44-10 2"x2" Nal 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 7,228 counts per minute (cpm).

The background count rate for this location was measured as 1,584 cpm (average).

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by lowering the detector into the excavation and recording the highest count rate for the floor and walls to a maximum excavation depth of 9 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 3,200 cpm. No count rates were found at any time that exceeded the threshold limit of 7,228 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



84-102"

102-120" 2400 108-126" 2100

3200

Radiation Survey Form

Location/ Project ID: 256-360 E. Ohio St. ECC

Date: 03/03/21 Technician: Mark Dewald

Inst Model: Ludlum 2221 Serial No.: 134542

Probe Type: 1"x1" Nal / 2"x2" Na) Lift Elevation: Surface to -9' BGS

Shielded / Not Shielded

Background 1,584 cpm Action Level: 7,228 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.

						N
				scale		
					(
			3 ft Diameter			
				121' to McClurg	Court	
		Ohio Street				
	Area 1					
0-12"	1700					
12-30"	1500					
30-48"	1600					
48-66"	2400			_		
66-84"	2500		U	= Excavated area		