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March 25, 2021

Devon Pavlek EBI Consulting 21 B Street Burlington, MA 01803

RE: Thorium Monitoring for Meade Electric / Verizon Wireless 345-410 E. Grand Ave. CDOT Permit #1408629

Dear Ms. Pavlek:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for a conduit installation at 345-410 E. Grand Avenue in Chicago, Illinois. The monitoring was performed by Aaron Morris, RSSI Health Physicist, on March 15, 2021.

This location had been previously excavated on July 30, 2020. Thorium contamination was identified in the vicinity, but none was required to be excavated due to it being location in the sidewall. See report dated August 4, 2020. The area being re-excavated had been backfilled with clean stone, so no new soil was removed or handled during this work.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 99147) 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 6,959 counts per minute (cpm).

The background count rate for this location was measured as 1,611 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 depth of 2 feet below ground surface.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,671 cpm to 2,193 cpm. No count rates were found at any time that exceeded the threshold limit of 6,959 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

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Radiation Survey Form

Location/ Project ID: EBI/Meade Electric: 345-410 E. Grand Ave.

Date: <u>3/15/21</u>		Technician:	Aaron Morris
Inst Model: Lud	lum 2221	Serial No. :	99147
Probe Type: 1"x1" Nal / 2"x2" Nal Lift I Shielded / Not Shielded		Lift Elevation: _	Surface to -2.0' BGS
Background <u>1,611</u> cpm Action Level: <u>6,959</u> 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.			
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← E. Grand Ave. →			
Tree	Box Initial Slab Removed	Excavated Area Second S Removed	
73" 73"			
Location ID		Gross CP	M
Sub-slab initial 18" down			1800
Spoils from undercutting		3	<u>1671</u> 2021
18" down extension		-	2193
Remaing sub-slab			1717
Final pipe level (~2')			1929

Note: Survey Form completed by Glenn Huber on 3/25/21 based on field notes provided by Aaron Morris, RSSI.