

# Stan A. Huber Consultants, Inc.

Health Physics and Radiation Safety Services

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September 4, 2018

Mike Lanenga SET Environmental 450 Sumac Road Wheeling, Illinois 60090

RE: 600 N. Streeter Dr. Thorium Monitoring 8/30/18

CDOT Permit #981924

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during removal and replacement of sidewalk at 600 N. Streeter Dr. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on August 30, 2018. 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. 126496) with attached Ludlum Model 44-10 2"x2" Nal probe (w/ 6" collimated lead shield). The instrument was calibrated on October 11, 2017. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,366 counts per minute (cpm).

The average background count rate for this location was determined to be 2,205 cpm.

#### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Surface gamma scans were on the surface of the sidewalk and again after removal to a maximum depth of 6 inches below ground surface.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 1,600 cpm to 2,400 cpm. No count rates were found at any time that exceeded the instrument specific threshold limits of 7,366 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.

## Regulatory Notification of Survey Completion

I will be providing a copy of this report to both the City of Chicago Department of Public Health and USEPA, 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.

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Glenn Huber, CHP

President

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Radiation Survey Form

Location/ Pro	oject ID: 600 N. STNE 130/7018	Technician: BRIAJ SCUMIET	O SUP
Inst Model:	Luonn-2221	Serial No. :	
Probe Type:	1"x1" Nal / 2"x2" Nal Shielded / Not Shielded	Lift Elevation: O-6"	
Background	2205 cpm	Action Level: 7366 cpm	
Write grid design at grid intersection	ations in circles. Record highest ns (if required). Shade areas of	st counts for grid in cpm. Record 30 second counts  f elevated counts and record max cpm.	
$\bigcirc$	$\bigcirc$	scale	
1	nouty Ring	44'	
WALY	0 0		
	<b>3 0</b>	× × × × × × × × × × × × × × × × × × ×	
510	ELLY LIA	45. L.	
	STREETER DR	- <del>  3</del>	
FXCA	PATION TO DEPTH C	CPM	
	0-6"	1800	
	7 0-6" /	1600	
	6-24" 2	200	