

# 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

November 18, 2017

Mike Lanenga SET Environmental 450 Sumac Road Wheeling, Illinois 60090

RE: Thorium Monitoring – City of Chicago Department of Transportation

Curb and Sidewalk Replacement

CDOT Permit 847114: 341-592 E. North Water St. CDOT Permit 863244: 319-340 E. Illinois St.

319-340 E. Illinois St. 400-478 N. New St.

325-329 E. North Water St.

440 N. McClurg Ct.

## Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during removal of curbs and sidewalks for City of Chicago Department of Transportation (CDOT) located at the multiple addresses detailed above. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on November 10, 2017 through November 16, 2017. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

#### <u>Instrumentation</u>

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" Nal detector (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 1,876 cpm.

#### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter detailed above. Survey data was collected scanning the surface of the sidewalk and curbs prior to removal and again the concrete was removed and recording the highest observed count rate. All excavated material was loaded directly into a truck for 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 1,600 cpm to 3,500 cpm. No count rates were found at any time that exceeded the threshold limit 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 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.

12/12

Glenn Huber, CHP

President

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		Raulatioi	n Survey i	ruill	0 10
	Location/ Project ID:	COOT - 440 N.	McCure Ct	. CHICAGO, FE- S.DE	WALLY KEMOJAL /REPLACEMENT ROW RAPICEGICAL
	Date: 11/10/17 - 1	1/11/17	Technician:	15RIAD ScynI	ROW RADICESOKAL  SURVEY
	Inst Model: Lyoun	-2221	Serial No.:	126496	
		/ / 2"x2" Nal / Not Shielded	Lift Elevation	: <u>0-6" bgs</u>	
	Background /876	cpm	Action Level:	7366 <sub>cpm</sub>	
	Write grid designations in circle at grid intersections (if required				† N
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Radiatio	on Survey Form	
Location/ Project ID: CDOT-440 N. M	10 CWES GT CYKAGO, IL - SIDEWALL REMOVAL PROBLEMENT - ROW RADIOLEGIC	:4 U
Date: 11/11/17 + 11/14/17	Technician: BLIAN SCYMIOT	
Inst Model: Lugua - 2221	Serial No. : 126496	
Probe Type: 1"x1" Nai / 2"x2" Na) Shielded / Not Shielded	Lift Elevation: 0-6 " lags	
Background /876 cpm	Action Level: 7366 cpm	

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts

at grid i	intersections	(if required	). Shade areas of	elevate	ed counts	and recor	d mas	cpm.				
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Radiation Survey Form

Loca	tion/ Project ID: (	00T-440 N.M.	CLUMB CT - CH	CAGO, IL - SIDEWALL	REMOVAL / REPLACES
Date	: 11/14/17		Technician:	BRIAN SOUM	Juku0
Inst I	Model: /vocum-	2221	Serial No. :	126496	····
Prob	e Type: 1"x1" Nal	/ 2"x2" Nal Not Shielded	Lift Elevation	: <u>0-6" bgs</u>	-
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	(30)	0-6" 6-24"	2300 2900		



Radiation Survey Form

Location/ Project ID: COT-4	140 N. M. CLURG CTCY ICAGO, FL - STREET CURS REMOVAL PROPOSOCIAL
Date: 11/16/17	Technician: BRIAN SCYMIOT ROW RAPIDLOGICAL SURVEY
Inst Model: <u>Lucium - 2721</u>	Serial No.: 126496
Probe Type: 1"x1" Nal / 2"x2" N Shielded / Not Shiel	
Backgroundcpm	Action Level: 7366 cpm
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