

## 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

June 30, 2016

Mike Lanenga SET Environmental 450 Sumac Road Wheeling, Illinois 60090

RE: 320 and 360 East Ohio St. Thorium Monitoring – City of Chicago Department of

Water Management

Dear Mr. Lanenga:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and repair of catch basins at both 320 E. Ohio Street and 360 E. Ohio Street in Chicago, Illinois. The monitoring was performed on June 23, 2016. 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 Scaled / Ratemeter (serial no. 126496) with attached 2"x2" Nal probe (6" lead shielded). The instrument was calibrated on October 15, 2015. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,054 counts per minute (cpm).

The average background count rate for this location was found to average 2,028 cpm.

## Soil Gamma Scans

Surface gamma scans were performed by Brian Schmidt, SAHCI Health Physics Technician, using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by monitoring the soil in each 18 inch lift as it was removed from the excavation and recording the highest count rate to a maximum excavation depth of 2 feet.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,900 cpm to 3,400 cpm. No count rates were found at any time that exceeded the threshold limit of 7,054 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.

You will need to forward a copy of this report to the City of Chicago Department of Public Health (Attn: Rahmatunsia Begum) with the CDOT Permit Number in the subject line. I will be providing a copy of this report to 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.

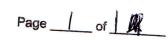
Sincerely,

Stan A. Huber Consultants, Inc.

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Glenn Huber, CHP

President





Radiation Survey Form

i di	Location/ Project ID: 320 + 360 E. OHIO STREET - CHICAGO, IL - DWM/	MANGALE
ž.	Date: 6/23/16 Technician:	REPLACEMENT
	Inst Model: Luptum - 2221 Serial No.: 126496	
ja	Probe Type: 1"x1" Nal / 2"x2" Nal  Lift Elevation: 0-24" bgs	
	Background 2776 cpm Action Level: 7054 cpm	
W at	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	
	97'  0410 ST  14'  1 N  3 GARRET CUND 360 E. ON 10 ST.  B-1= BACKGROWNO (ININ COUNT) = 2270  12-30" - 2200 24-42" - 2900  74'	o cfm
	04 10 ST 24-42" - 2900 74"  STREET 320 E. DANG ST 8"	
	12-30"-1900	
	24-42"- 3400	