

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

September 22, 2015

Luke Wells Western Utility Contractors, Inc. 2565 Palmer Ave. University Park, IL 60466

RE: 225 N. Columbus Drive Thorium Monitoring

Dear Mr. Wells:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and installation of a utility duct at 225 N. Columbus Dr. in Chicago, Illinois. The monitoring was performed on September 21, 2015.

<u>Instrumentation</u>

Surface gamma scans were performed by Brian Schmidt 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 17, 2014. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,037 counts per minute (cpm).

The average background count rate for this location was found to be 1,448 cpm.

Soil Gamma Scans

Gamma surface scans were performed 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 for the floor and walls to an excavation depth of 5 feet. No soil was stockpiled during the project and all excavated materials were loaded directly into the truck after screening.

The maximum gamma count rates for each 18 inch lift are detailed on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,100 cpm to 2,500 cpm. No count rates were found at any time that exceeded the threshold limit of 7,037 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.

124

Glenn Huber, CHP

President

	:		1
Page	1 0	of	1

Dr.



Radiation Survey Form				
Location/ Project ID: WESTERN UTI LITY - ELECTRICAL SCAVICE INSTAUL S. WATER St. + COMMIGNS				
Date: 9/2/17	Technician: Bull Schwitt			
nst Model: LUBLUM - 2221	Serial No. : 126 496			
Probe Type: 1"x1" Nal / 2"x2" Nal Shielded / Not Shielded	Lift Elevation: 0-42°			
Background <u>/448</u> cpm	Action Level: 7037 cpm			
Write grid designations in circles. Record highest count grid intersections (if required). Shade areas of elevations				
\bigcirc \bigcirc \bigcirc	scale			
S. WATER ST.				
S. WATER ST.				
B-1	T I			
SURVILLA &	877			
3'4	27'			
3'75'	10//17			
Diagram Com	B S			
D 0-12"(Goss.) 1100				
12-30" 1600				
30-48° 2400 E 42-60° 2500 E	MANHOLES :			
B-1 (BACHGAOVAD) =				
1449 (1. (0.7)				