



April 24, 2017

Buddy Hix  
Western Utility Contractors, Inc.  
2565 Palmer Ave.  
University Park, IL 60466

RE: 306-347 North MacChesney Ct. Thorium Monitoring 4/18/17 – 4/20/17  
CDOT Permit # 778815

Dear Mr. Hix:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for a Comcast conduit installation at 306-347 North MacChesney Ct. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on April 18, 2017 through April 20, 2017.

#### Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 126496) with attached 2"x2" NaI probe (w/ 6" collimated lead shield). The instrument was calibrated on October 14, 2016. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,029 counts per minute (cpm).

The average background count rate for this location was determined to be 2,199 cpm.

#### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. The western portion of the excavation was not monitored by SAHCI as we were not onsite prior to April 18, 2017 while excavation took place. Survey data was collected by entering the excavation after each 18-inch lift and recording the highest count rate for the floors and walls to an excavation depth of 3 feet below ground surface. All soil 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 2,100 cpm to 3,800 cpm. No count rates were found at any time that exceeded the threshold limit of 7,029 cpm.

### Additional Monitoring

On April 19, 2017 a gas line was struck during excavation, causing a leak. The Western Utility Contractors crew stopped working for the day, but Brian Schmidt stayed onsite to perform monitoring while People's Gas repaired the leaking gas line. No contamination was identified during this process.

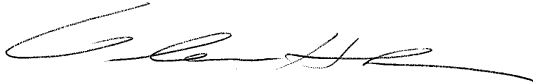
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

### 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.

A handwritten signature in black ink, appearing to read 'G. Huber', with a long horizontal flourish extending to the right.

Glenn Huber, CHP  
President



### Radiation Survey Form

Location/ Project ID: WESTERN UTILITY - 306-347 MACQUESEY COURT - CHICAGO, IL - COMCAST UTILITY INSTALLATION - ROW RADIOLOGICAL SURVEY

Date: 4/18-20/2017 Technician: BRIAN SCHMIDT

Inst Model: WALUM-2221 Serial No.: 126496

Probe Type: 1"x1" NaI / 2"x2" NaI / Shielded / Not Shielded  
Lift Elevation: 0-36"

Background 2199 cpm Action Level: 7029 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.



Grid	DEPTH	CPM
①	0-6"	2800
	6-24"	2400
	24-42"	2600
②	36-54"	2100
	0-6"	3600
	6-24"	3100
	24-42"	2800
③	36-54"	2300
	0-6"	3100
	6-24"	2700
	24-42"	2900
④	36-54"	2300
	0-6"	3700
	6-24"	2600
	24-42"	2400
⑤	36-54"	2900
	0-6"	2900
	6-24"	2500
	24-42"	2600
⑥	36-54"	2800
	0-6"	3300
	6-24"	2900
	24-42"	2700
⑦	36-54"	2800
	0-6"	3800
	6-24"	3400
	24-42"	2600
	36-54"	2500

TRENCH EXCAVATION IS

← scale →