

May 5, 2018

Paul Duncan  
Western Utility Contractors, Inc.  
2565 Palmer Ave.  
University Park, IL 60466

RE: 1-99 W. Hubbard St Thorium Monitoring 4/19/18 – 4/23/18  
CDOT Permit # 935170

Dear Mr. Duncan:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation of two utility conduit trenches in the alley south of 1 - 99 W. Hubbard St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt and Glenn Huber, SAHCI Health Physics Technicians, on April 19, 2018 – April 23, 2018.

#### Instrumentation

Surface gamma scans were performed using Ludlum Model 2221 Scaler / Ratemeters (serial no. 134542 and 126496) with attached Ludlum Model 44-10 2"x2" NaI detectors (w/ 6" collimated lead shields).

Serial number 134542 was calibrated on August 9, 2017. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,415 counts per minute (cpm).

Serial number 126496 was calibrated on October 11, 2017. The USEPA action level of 7.1 pCi/g total thorium for this instrument is 7,366 cpm

The average background count rate for this location was determined to range from 1,901 to 1,984 cpm.

#### Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeters described above. 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 4 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 Forms. The count rates in the excavation ranged from 2,100 cpm to 4,200 cpm. No count rates were found at any time that exceeded the instrument specific threshold limits of 7,366 and 6,415 cpm.

#### Additional Monitoring

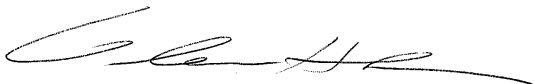
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

#### 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.

A handwritten signature in black ink, appearing to read 'G. Huber', written in a cursive style.

Glenn Huber, CHP  
President

## Radiation Survey Form

Location/ Project ID: 22 West Hubbard St. Western Utility Contractors

Date: 4/19/18

Technician: Glenn Huber

Inst Model: Ludlow 2221

Serial No. : 134542

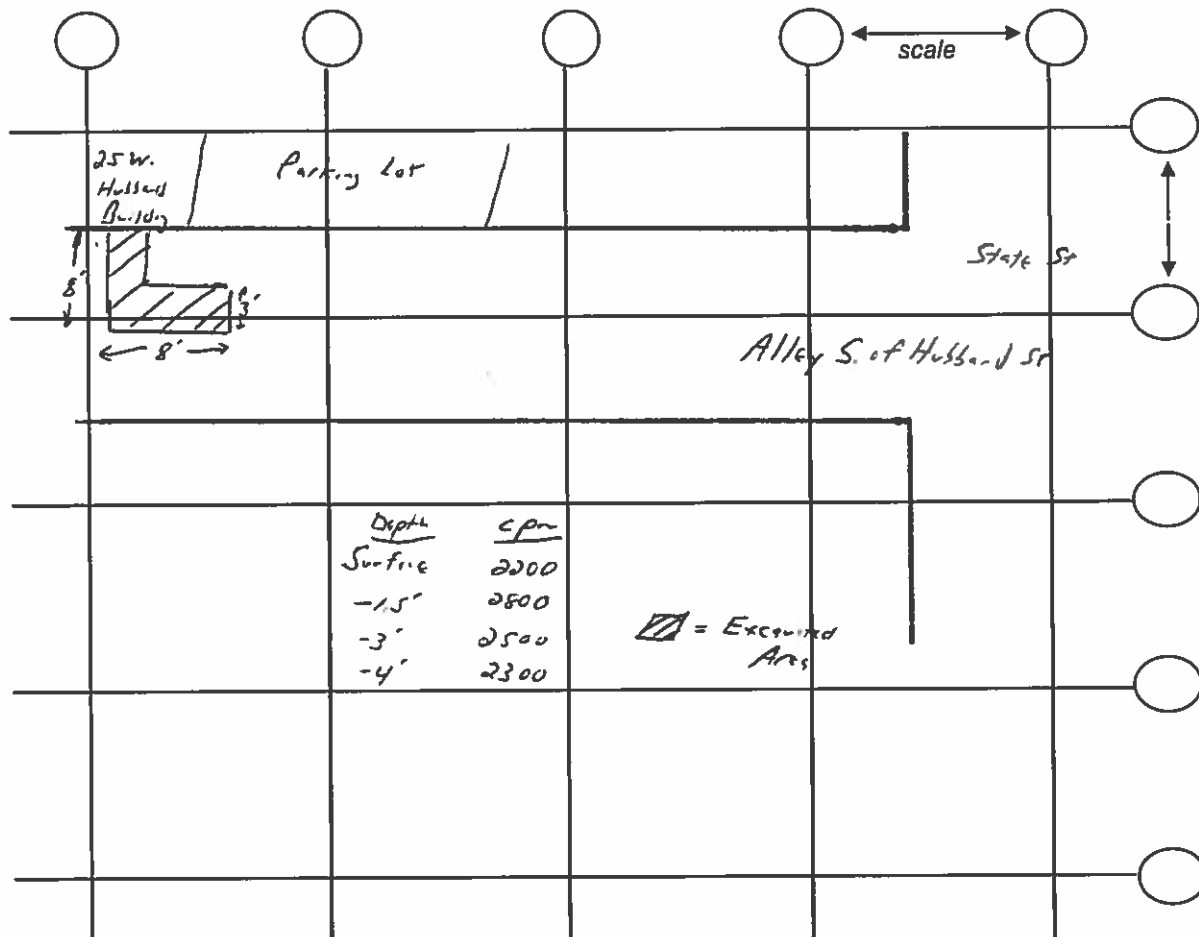
Probe Type: 1"x1" NaI / 2"x2" NaI  
Shielded / Not Shielded

Lift Elevation: surface → -4'

Background 1984 cpm

Action Level: 6415 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.



### Radiation Survey Form

Location/ Project ID: WESTERN UTILITY - 22 W. HOBARD ST - CHICAGO, IL - COMMUNICATION UTILITY INSTALLATION

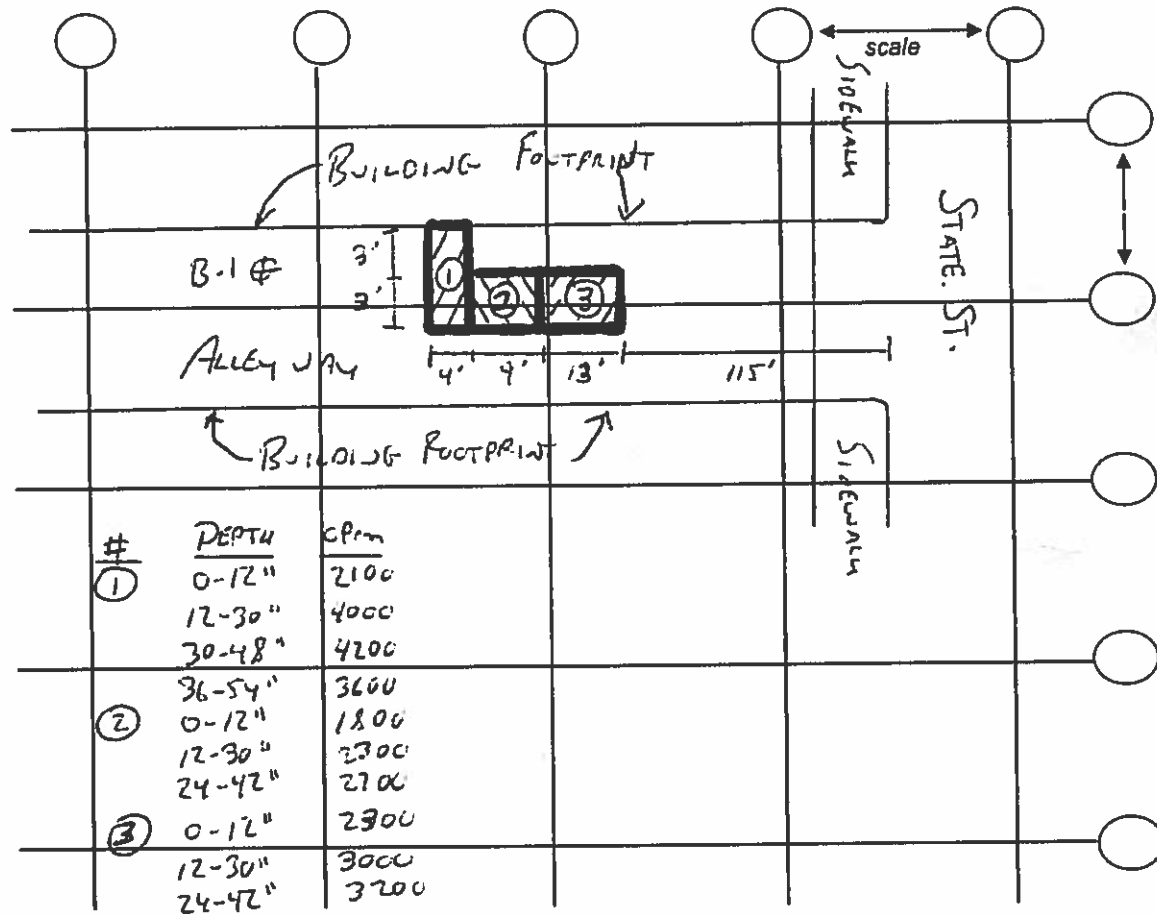
Date: 4/20 + 23/2018 Technician: BRIAN SCHMIDT ROW RADIOLOGICAL SOIL SURVEY

Inst Model: WDLVN - 2221 Serial No.: 126496

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

Background 1901 cpm Action Level: 7366 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.



B-1 = 1901 (BACKGROUND 1 MIN COUNT)