



October 7, 2016 (REVISED 10/21/16 GAH)

Jennifer Rogulich
Western Utility Contractors, Inc.
2565 Palmer Ave.
University Park, IL 60466

RE: Grand Avenue and Lower Lake Shore Drive Thorium Monitoring

Dear Ms. Rogulich:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and replacement of two utility vaults located at Grand Avenue and Lower Lake Shore Drive in Chicago, Illinois. The monitoring was performed by Glenn Huber and Steven Kowalczyk on September 19, 20, and 30, 2016.

Instrumentation

Surface gamma scans were performed using the following Ludlum Model 2221 Scaler / Ratemeters (serial nos. 126497 and 134542) with attached 2"x2" NaI probes (6" lead shielded):

Ludlum 2221 (serial number 126497) was calibrated on October 15, 2015. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,018 counts per minute (cpm) and the average background count rate was found to be 2,500 cpm.

Ludlum 2221 (serial number 134542) was calibrated on August 8, 2016. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 6,338 counts per minute (cpm) and the average background count rate was found to be 1,476 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 excavations after each 18 inch lift and recording the highest count rate for the floors and walls to an excavation depth of 4.5 feet. Soil removed from the excavations from a depth of 4.5 feet to 6.0 feet were surveyed in the bucket of the excavator as it was removed. 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 1,700 cpm to 4,100 cpm. No count rates were found at any time that exceeded the threshold limits of 6,018 cpm and 6,338 cpm, respectively.

Additional Monitoring

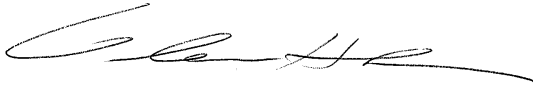
Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

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.

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 Contractors : 530 N. Lake Shore Drive

Date: 9/19/16

Technician: Glenn Huber

Inst Model: Ludlum 2201

Serial No. : 134542

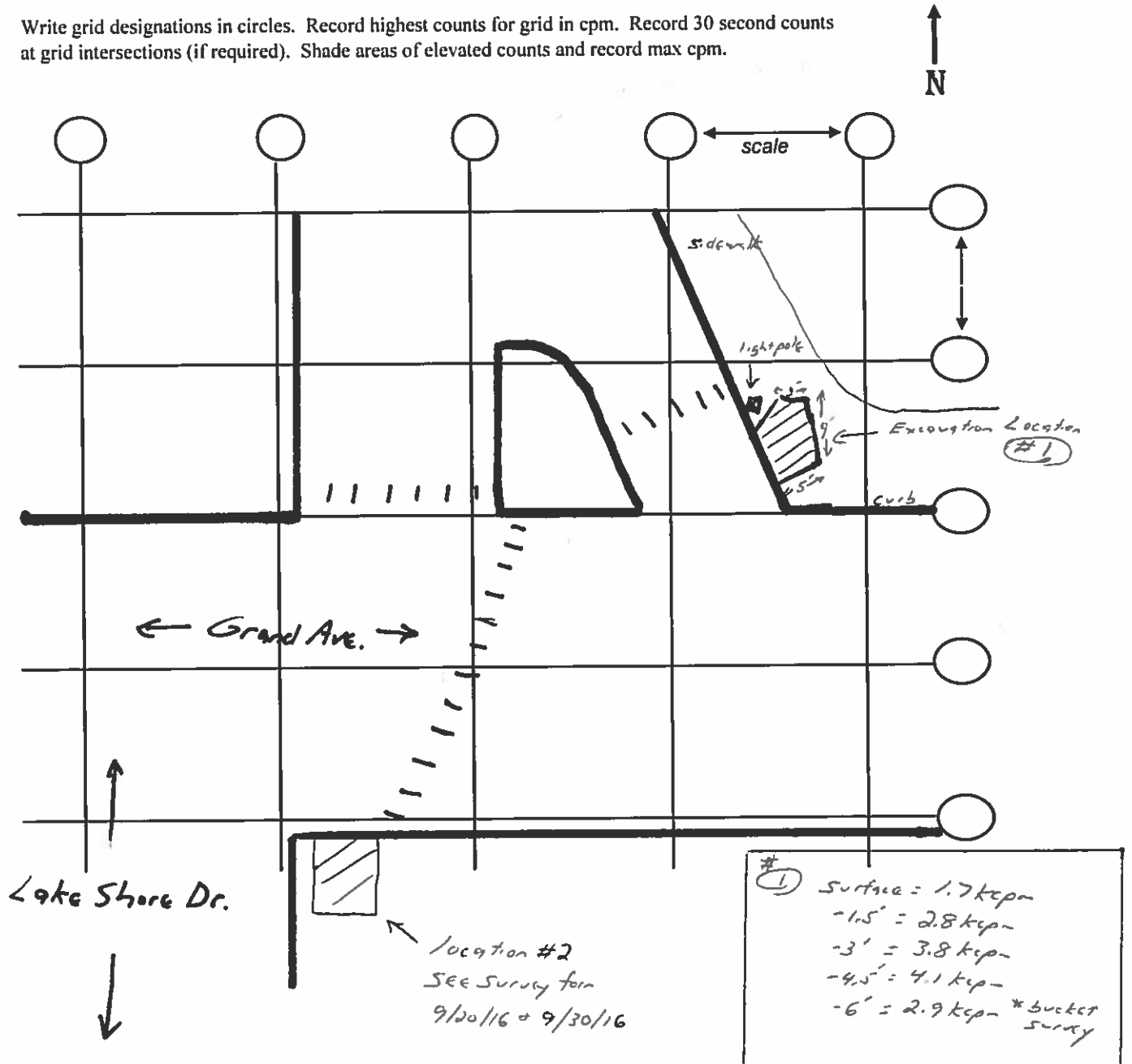
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: Surface → -6'

Background 1476 cpm

Action Level: 6338 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 Contractors : 530 N. Lake Shore Drive

Date: 9/20/16 + 9/30/16 Technician: Steven Kowalczuk

Inst Model: Ludlum 2221 Serial No. : 126497 Probe SN: 171991

Probe Type: 1"x1" NaI / 2"x2" NaI Lift Elevation: surface → -6'
 Shielded / Not Shielded

Background 2500 cpm Action Level: 6,018 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.

