



November 22, 2021

Paul Muszynski
Electric Conduit Construction
3333 S. Iron St.
Chicago, IL 60608

RE: Thorium Monitoring at 194-238 E. North Water St.
CDOT Permit # 1612933

Dear Mr. Muszynski:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for installation of a utility conduit at 194-238 E. North Water St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on November 17, 2021.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 134542) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was last calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,396 counts per minute (cpm).

The background count rate for this location was measured at 1,776 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation and recording the highest count rate for the floor and walls to a maximum excavation depth of 4 feet below ground surface. Soil, concrete, and asphalt were loaded directly into a truck for offsite disposal.

The maximum gamma count rate for each 18-inch lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,800 cpm to 2,500 cpm. No count rates were found at any time that exceeded the threshold limit of 7,396 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.

I will be providing a copy of this report to both the City of Chicago Department of Public Health (CDPH) 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.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: EGG - FIBER SERVICE INSTALL - S. WATER ST. - ROW RADIOLOGICAL SOIL SURVEY

Date: 11/17/2021 Technician: BRIAN SCHMIDT

Inst Model: WALUM-2221 Serial No.: 134542

Probe Type: 1"x1" NaI / ~~2"x2" NaI~~ Lift Elevation: 0-48"
Shielded / Not Shielded 7,396

Background 1776 cpm Action Level: 6758 GAH 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.

