

## 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

February 8, 2013

Greg Preisch Hydro-Exc. Inc. 8248 Wright St. Merrillville, IN 46410

RE: 225 N. Wabash Ave., Chicago, IL. Thorium Monitoring February 2013

Dear Mr. Preisch:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation/repair of a utility trench at 225 N. Wabash Ave. in Chicago, Illinois. The actual excavation took place on Lower East South Water Street, just west of Michigan Ave. The monitoring was performed on February 6, 2013.

## <u>Instrumentation</u>

Surface gamma scans were performed by Joel Ahrweiler, SAHCI HP Technician, using a Ludlum Model 2221 Scaler / Ratemeter with attached 2"x2" Nal probe (unshielded). The instrument was calibrated on November 9, 2012. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 17,915 counts per minute (cpm).

The average background count rate for this location was found to be between 4,700 cpm and 5,800 cpm over the concrete sidewalk.

## Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Data was collected by lowering the detector into the trench after each 18 inch lift and recording the highest count rate for the floors and walls to a maximum excavation depth of 18 inches. The excavated trench was 13.5 feet wide x 20 feet long.

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 5,800 cpm to 6,800 cpm. No count rates were found at any time that exceeded the threshold limit of 17,915 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.

Glenn Huber, CHP

President

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Stan A. Huber Counsultants, Inc. Radiation Survey Form for, 225 N Wabash Ave + Sanchuz Construction Services Location/ Project ID: 6/2013 Technician: Joel Ahrweiler Date: Inst Model: 2221 Serial No.: Lift Elevation: MAX Depth -1.5 Probe Type: 1"x1" Nal / 2"x2" Nal Shielded \ Not Shielded Action Level: 17,915 cpm Background 4.7 - 5.8 Kcpm 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. 10 scale Lower Water St.

Survey Reading S=5.8 kepm S=5.9 kepm
-1.5'=6.8 1 -1.5'=6.7 1 13.5 Curb Zo (m) = Manhole = Excavated Aren