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

August 14, 2012

Larry Creadon
IHC Construction Companies, LLC.
1500 Executive Drive
Elgin, IL 60123

RE: 500 N. St. Clair St. Thorium Monitoring August 2012

Dear Mr. Creadon:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide thorium monitoring during excavation of a utility trench in the alley located at 500 N. St. Clair St. in Chicago, Illinois. The monitoring was performed on August 7, 2012 – August 10, 2012.

Instrumentation

Surface gamma scans were performed by Glenn Huber using a Ludlum Model 2221 Scaler / Ratemeter with attached 2"x2" NaI detector. The instrument was calibrated on November 8, 2011. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 19,110 counts per minute (cpm) (unshielded). A 6-inch collimated lead shield was used for all surveys with an action level of 6,591 cpm (shielded).

The average background count rate for this location was found to be between 6,000 cpm and 8,000 cpm over the pavement near the entrance to the alley. The average background count rate with the 6-inch collimated lead shield was between 1,600 cpm and 2,200 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. A 6-inch collimated shield was utilized for all trench surveys because the count rate at the surface of the brick building on the north side of the alley was found to be 13,100 cpm – 16,300 cpm (unshielded). Data was collected by entering the excavation after each 18 inch lift and recording the highest count rate for the floors and walls to a maximum excavation depth of 4.5 feet. The excavated area was 2 feet wide x 126 feet long.

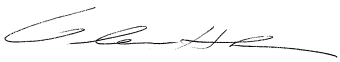
The maximum gamma count rate for each 1.5 foot lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,500 cpm to 4,100 cpm (shielded). No count rates were found at any time that exceeded the threshold limit of 6,591 cpm.

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.

Thank you for your assistance with this project. If you have any questions or need additional information please call me at (815) 485-6161. This report should be forwarded to the Chicago Department of Environment (CDOE) as detailed on your permit.

Sincerely,
Stan A. Huber Consultants, Inc.



Glenn Huber, CHP
President

sahci
Stan A. Huber Counsultants, Inc.

Radiation Survey Form

Location/ Project ID:

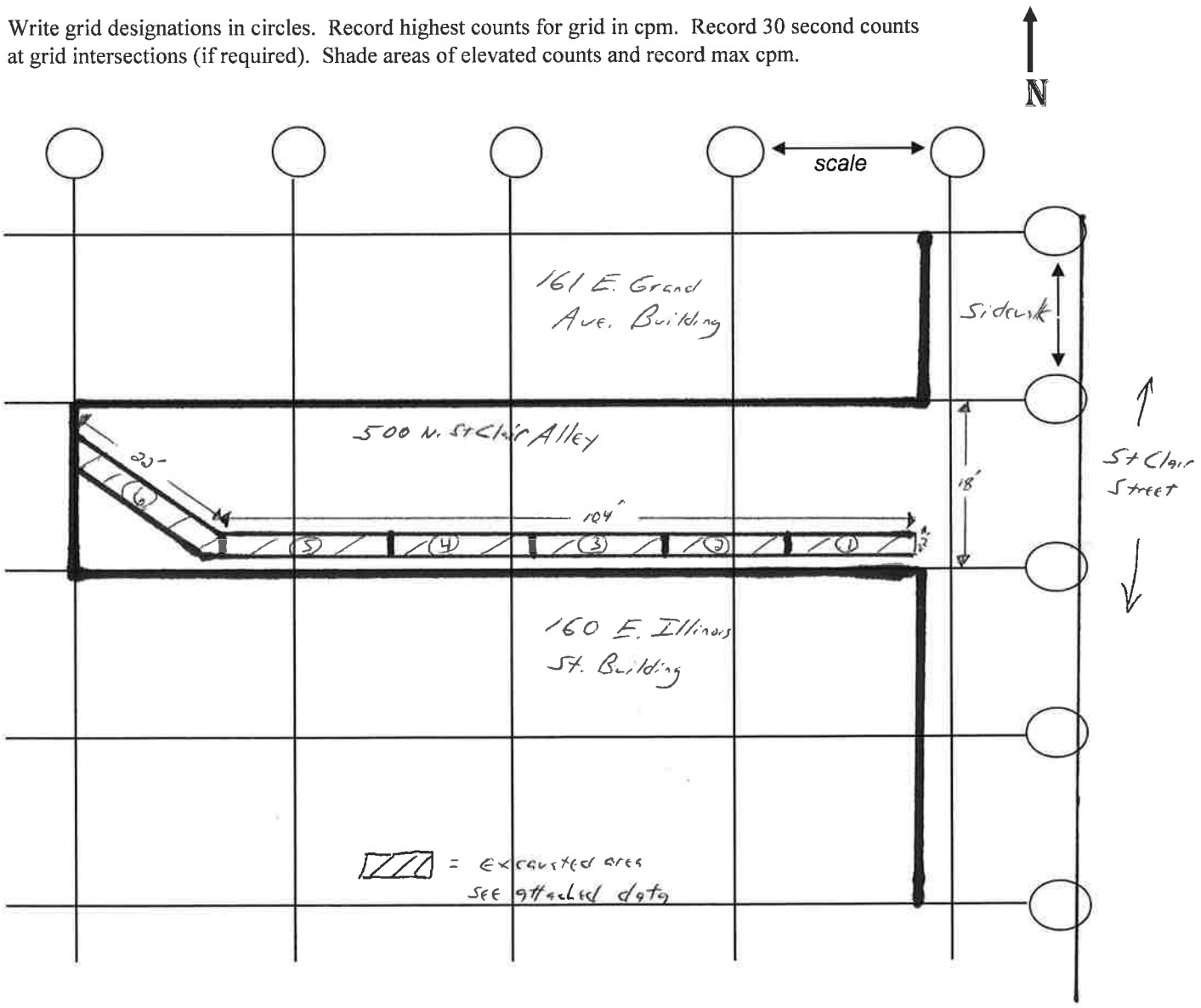
Date: 8/7/12 - 8/10/12 **Technician:** Glenn Huber

Inst Model: Ludlum 2221 **Serial No. :** 134542

Probe Type: 1"x1" NaI ~~2"x2" NaI~~ **Lift Elevation:** surface → -4.5 feet
Shielded / Not Shielded

Background 1.6 - 2.2 k **cpm** **Action Level:** 6,591 **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.



500 N. St. Clair S.t - IHC Construction

8/7/12 - 8/10/12

Area 1	Counts per minute (CPM)
surface	1800
-1.5'	1500
-3.0'	2800
-4.5'	2700

Area 2	Counts per minute (CPM)
surface	2300
-1.5'	2400
-3.0'	3100

Area 3	Counts per minute (CPM)
surface	2500
-1.5'	3300
-3.0'	2800

Area 4	Counts per minute (CPM)
surface	2800
-1.5'	3100
-3.0'	3200

Area 5	Counts per minute (CPM)
surface	2700
-1.5'	3000
-3.0'	3200

Area 6	Counts per minute (CPM)
surface	3000
-1.5'	3800
-3.0'	4100

Note: All surveys performed with 6" collimated lead shield