



November 2, 2016

Nate Bartley
SET Environmental
450 Sumac Road
Wheeling, Illinois 60090

RE: 113-121 E. Erie St. Thorium Monitoring – Meade Electric Test Excavations performed on 10/29/16-10/30/16. CDOT Permit # 719000

Dear Mr. Bartley:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation of utility test trenches for future conduit installation at 113-121 E. Erie Street in Chicago, Illinois. The monitoring was performed By Glenn Huber on October 29, 2016 – October 30, 2016. All activities were conducted under the guidance of document *SET General Procedure for Thorium Monitoring*.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaled / Ratemeter (serial no. 134542) with attached 2"x2" NaI probe (6" lead shielded). The instrument 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).

The average background count rate for this location was determined to be 1,422 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 after each 18-inch lift and recording the highest count rate for the floors and walls to an excavation depth of 3 feet. 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 Form. The count rates in the excavation ranged from 1,400 cpm to 3,900 cpm. No count rates were found at any time that exceeded the threshold limit of 6,338 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 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: 113-121 E. Erie St. SET Environmental (Meade)

Date: 10/29/16 - 10/30/16

Technician: Glenn Huber

Inst Model: Ludlum 2221

Serial No.: 134542

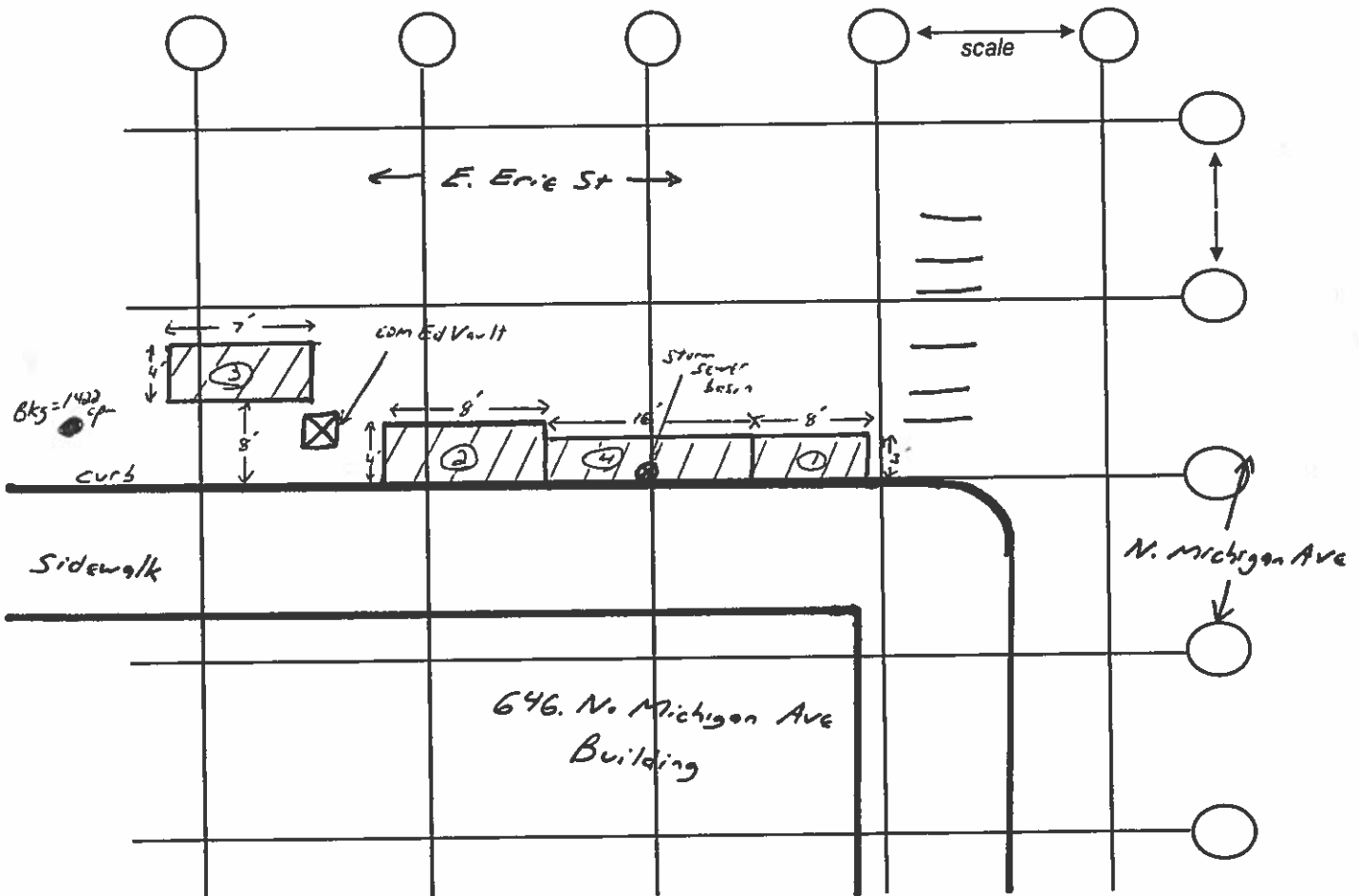
Probe Type: 1"x1" NaI 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: surface → -39"

Background 1422 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.



10/29/16
① Surf = 1.5k
-1.5' = 2.8k
-3' = 2.4k

10/29/16
② Surf = 1.6k
-1.5' = 1.8k
-3' = 1.7k

10/29/16
③ Surf = 2.2k
-1.5' = 2.8k
-3' = 3.9k

10/30/16
④ Surf = 1.4k
-1.5' = 2.2k
-3' = 2.1k

=
Excavated
area
39" deep max.