

# 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

March 26, 2018

Steven Griffin Electric Conduit Construction 816 Hicks Drive Elburn, IL 60119

RE: 616 N. Rush St. Thorium Monitoring 3/20/18 - 3/23/18

CDOT Permit #874872

Dear Mr. Griffin:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation for a fiber optic utility installation at 616 N. Rush St. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on March 20 – March 23, 2018.

#### Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" Nal detector (w/ 6" collimated lead shield). The instrument was calibrated on October 11, 2017. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,366 counts per minute (cpm).

The background count rate for this location was found to average 1,811 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 a maximum excavation depth of 53 inches below ground surface. No soil was stockpiled onsite.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 1,200 cpm to 3,400 cpm. No count rates were found at any time that exceeded the threshold limit of 7,366 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.

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Glenn Huber, CHP

President

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Radiation Survey Form Location/ Project ID: ELECTRIC CONDUIT - ONTALIO ST + RUTY ST. - FIRST OPTIC INSTALL ATION - ROW

RADIOLOGICAL SLAVEY

Date: 3/20-23/2018 Technician: BRIAN SCYNINT Serial No.: \_\_126496 Inst Model: Lupiun - 2771 Lift Elevation: 0-53''Probe Type: 1"x1" Nal / 2"x2" Nal Shielded / Not Shielded Action Level: \_7366 Background 1811 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. scale SIDE WALL ONTARIO St. 11/3 12 (2) SIDEWALL



Radiation Survey Form Location/ Project ID: ELECTRIC CONDUIT - ONTARIOST. TRUSH ST. - PIBER OPTIC PROTALLATION—
ROW RAGIOLOGICAL

Date: 3/20-23/2018

Technician: BRIAN Schmidt Sill SURVEY Inst Model: Luown - 2221 Serial No.: 126496 Lift Elevation: 0-5311 Probe Type: 1"x1" Nal / 2"x2" Nal Shielded / Not Shielded Action Level: 7366 811 Background 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. N scale DEPTI cpm CPM DEPTY DEPTY CPM ID ID 0-12" 1400 1700 0-12" 1700 0-120 12-30" 2200 2000 12-30:1 12-30" 1900 2500 30-48 2200 30-18" 30-48" 2800 2700 48-66 3200 36-5Y" 3200 1600 0-12" 1600 0-12" 2200 2700 12-90" 0-12" 1600 12-30" 12-30" 1800 30-4811 **TY00** 30-48" 3100 2600 30-48" 36-5417 3200 36-54" 2600 2300 0-12" 36-54" 0-12" 1800 1400 1700 1900 12-30" 0-12" 2400 12-30" (15) 2600 30-48" 2400 30-48" 12-30" 2800 2800 36-54" 3200 30-48" 36-54" 3200 1700 0-12" 1600 9-12-3000 36.54" 1900 12-30" 12-30" 1900 30-48" 2400 30-484 2900 2600 36-54" 36-5Y" 2700 0-12" 1300 (3) 1500 0-12" 12-301 2300 12-30" 2100 2500 30-48 2900 30-48" 48-66" 2700 2300 36-54" 1200 3400 0-12" 1500 0-12" 1400 12-30" 1800 12-30" 30-48" 2700 30-48" 2300 76-14" 2900 2800 36-541