

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

January 23, 2013

Jay Fishback Western Utility Contractors, Inc. 2565 Palmer Ave. University Park, IL 60466

RE: 212 E. Ohio Street Thorium Monitoring

Dear Mr. Fishback:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during excavation of a utility trench at 212 E. Ohio St. in Chicago, Illinois. The monitoring was performed on January 14, 2013 – January 16, 2013.

Instrumentation

Surface gamma scans were performed by Joel Ahrweiler using a Ludlum Model 2221 Scaler / Ratemeter with attached 2"x2" Nal probe. 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 6,400 cpm and 7,600 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. 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 40 inches. No soil was stockpiled during the project and all excavated soils were loaded directly into the truck after screening.

The maximum gamma count rates for each 1.5 foot lift are detailed on the attached Radiation Survey Forms. The excavation was delineated into 19 survey areas where the count rates ranged from 6,700 cpm to 10,700 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.

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Glenn Huber, CHP President

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Stan A. Huber Counsultants, Inc. Radiatio	n Survey Form
Location/ Project ID: 212 East (Ohro St. Western Utility
Date: Jan 14,15+16, 2013	Technician:
Inst Model:	Serial No. : 126 497
Probe Type: 1"x1" Nal 2"x2" Nal	Lift Elevation: Max depth -40"
Shielded Not Shielded Background <u>6.4</u> — 7. 6 Cpm	Action Level: 17915_cpm
Write grid designations in circles. Record highest con at grid intersections (if required). Shade areas of elev	ants for grid in cpm. Record 30 second counts ated counts and record max cpm.
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	Excavated Area Haches page for survey results

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Stan A. Huber Counsultants, Inc. Radiation	Survey Form
Location/ Project ID: ZIZ East Oh.	o St. Western Utility
Date: Jan 14,15 +16,2013 To	echnician: Joel Ahrweiler
	erial No. : <u>126 497</u>
Probe Type: 1"x1" Nal 2"x2" Nal Li Shielded Not Shielded	ift Elevation: Max depth - 40 "
Background <u>6.4 - 7.6 K</u> cpm A	ction Level:cpm
Write grid designations in circles. Record highest counts at grid intersections (if required). Shade areas of elevated	counts and record max cpm.
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	Buildinding Exterior
ewb	Sidewalk 120'
- E OHI) St P 10
j. DXOXBXDX	
Cwb TTTD - F	xavated Aren
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N. S. Breeder States

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212 E. Ohio St. Western Utility January 14,15 & 16, 2013

T A A BOTH STATE

d'Employee

	Counts per
A	minute (cpm)
surface	6700
-1.5'	7400
- 3'	8700
- 40"	9100

	Counts per
D	minute (cpm)
surface	6700
-1.5'	9500
- 3'	9200
- 40"	8700

·	Counts per
Н	minute (cpm)
surface	6900
-1.5'	9100
- 3'	8700

	Counts per
ĸ	minute (cpm)
surface	7400
-1.5'	8400
- 3'	8700

Counts per
minute (cpm)
7300
7900
6700

	Counts per
Q	minute (cpm)
surface	8000
-1.5'	9400
- 3'	10700

	Counts per
Т	minute (cpm)
surface	8200
-1.5'	8800
- 3'	8700

	Counts per
В	minute (cpm)
surface	7200
-1.5	8100
- 3'	9300
- 40"	8700

110000

	Counts per
E	minute (cpm)
surface	7100
-1.5'	9300
- 3'	8900

	Counts per
1	minute (cpm)
surface	6800
-1.5'	9300
- 3'	9400

L	Counts per minute (cpm)
surface	8100
-1.5'	7700
- 3'	9100

ο	Counts per minute (cpm)
surface	8400
-1.5'	8100
- 3'	8500

	Counts per
R	minute (cpm)
surface	8700
-1.5	8100
- 3'	8400

	Counts per
c	minute (cpm)
surface	6900
-1.5'	8400
- 3'	9700
- 40"	10200

1. A State of Lots

	Counts per
F	minute (cpm)
surface	7400
-1.5'	8900
- 3'	9400

	Counts per
J	minute (cpm)
surface	7700
-1.5'	8400
- 3'	9400

	Counts per
М	minute (cpm)
surface	6900
-1.5'	8500
- 3'	6800

	Counts per
Р	minute (cpm)
surface	8000
-1.5'	9800
- 3'	10100

	Counts per
S	minute (cpm)
surface	7600
-1.5'	9300
- 3'	7900