



WESTON SOLUTIONS, INC.
205 CAMPUS DRIVE
EDISON, NEW JERSEY 08837
732-417-5800 • FAX: 732-417-5801

The Trusted Integrator for Sustainable Solutions

December 13, 2016

Mr. Andrew Fessler, Work Assignment Manager
U.S. Environmental Protection Agency
290 Broadway - 18th Floor
New York, NY 10007-1866

Document Control No.: W0428.1A.01189

Subject: Sampling Trip Report
TDD No.: 0004/1611-05, Canadian Radium & Uranium Corp.
Contract No.: EP-S8-13-01 (Region 8 START IV)

Dear Mr. Fessler:

Weston Solutions, Inc. (WESTON®) is pleased to submit the Sampling Trip Report for aqueous samples associated with the Canadian Radium & Uranium Corp. Site Reassessment in Mount Kisco, New York. The Region 2 Site Assessment Team collected water supply well samples from wells located within or just beyond an approximate 1-mile radius of the site on December 6, 2016. If you have any questions, please contact me at (732) 417-5814.

Very truly yours,
WESTON SOLUTIONS, INC.

A handwritten signature in black ink that reads "Denise Breen". The signature is written in a cursive, flowing style.

Denise Breen
Associate Project Scientist

enclosure

cc: C. Romano, EPA (w/o enclosure)
 G. Gilliland, WESTON
 Site file

SAMPLING TRIP REPORT

SITE NAME: Canadian Radium & Uranium Corp.
 DCN: W0428.1A.01189
 W.O.: 20408.012.004.0428.00

EPA ID NO.: NYD987001468

SAMPLING DATE: December 6, 2016

1. Site Location: Refer to Figure 1
2. Sample Locations: Refer to Figures 2A, 2B, and 2C
3. Sample Descriptions: Refer to Table 1
4. Laboratory Receiving Samples:

<u>Analyses</u>	<u>Name and Address of Laboratory</u>
Gamma-Emitting Radioisotopes, Gross Alpha and Beta, Radium-226, Isotopic Uranium, and Isotopic Thorium	National Analytical Radiation Environmental Laboratory (NAREL) 540 South Morris Avenue Montgomery, AL 36115

5. Sample Dispatch Data:

- Seven aqueous samples for low concentration Gamma-Emitting Radioisotopes, Gross Alpha and Beta, Radium-226, Isotopic Uranium, and Isotopic Thorium analyses were shipped to the NAREL laboratory on 12/6/16 at 17:00 hours via Federal Express (FedEx) Air Waybill No. 8106-1596-1443.

6. On-Site Personnel:

<u>Name</u>	<u>Company</u>	<u>Duties on Site</u>
Denise Breen	Weston Solutions, Inc. (WESTON®)	Field Lead, Site Health and Safety Coordinator, Sample Management Officer
Caroline Tuero	WESTON	Sampler, GPS Data Collector, Sample Management Officer
Andrew Fessler	U.S. Environmental Protection Agency (EPA)	EPA Oversight


7. Additional Comments:

On December 6, 2016, WESTON personnel collected aqueous samples from water supply wells located within or just beyond an approximate 1-mile radius of the Canadian Radium & Uranium Corp. site. WESTON collected a total of seven water supply well samples (including one environmental field duplicate) in support of the Canadian Radium & Uranium Corp. site reassessment, assigned under EPA Contract EP-S8-13-01 [Region 8 Superfund Technical Assessment and Response Team IV (START IV)].


The wells were purged for at least 15 minutes before sampling. Two wells that had water holding tanks associated with the wells (i.e., sample locations 0428-WSW05 and 0428-WSW07) were purged for at least 30 minutes before sampling. Additionally, water quality readings were monitored using a YSI 650 MDS water quality meter to confirm stabilized well conditions. At each water supply well, WESTON collected raw groundwater samples (i.e., prior to water treatment) from sampling spigots as close as possible to the wellhead. WESTON collected samples directly into the sample containers. Due to the limited access of the sampling spigot at sample location 0428-WSW05, Mr. Rich Kane, the environmental consultant for the well operations at the location, assisted WESTON in collecting the sample. One sample was collected with additional volume for laboratory Quality Assurance/Quality Control (QA/QC) purposes.

WESTON logged sample locations electronically using GPS equipment and performed post-processing differential correction of the GPS data in accordance with EPA Region 2 GPS standard operating procedures (SOPs). The processed GPS data for all samples have been transferred to the Sample Location Map (Figure 2) using a Geographic Information System.

All samples were collected from locations associated with the Canadian Radium & Uranium Corp. site (Task 0428) under the Region 8 START IV contract. All samples were submitted to the NAREL laboratory for analyses of Gamma-Emitting Radioisotopes, Gross Alpha and Beta, Radium-226, Isotopic Uranium, and Isotopic Thorium. The samples were shipped to the lab via FedEx. The Chain of Custody Record and associated Air Waybill are presented in Attachment 1. The field logbook notes, water quality logs, and photograph log are presented in Attachments 2, 3, and 4, respectively.

8. Report Prepared by: 
Denise Breen

Date: 12/13/2016

9. Report Approved by: 
Gerald V. Gilliland, P.G.

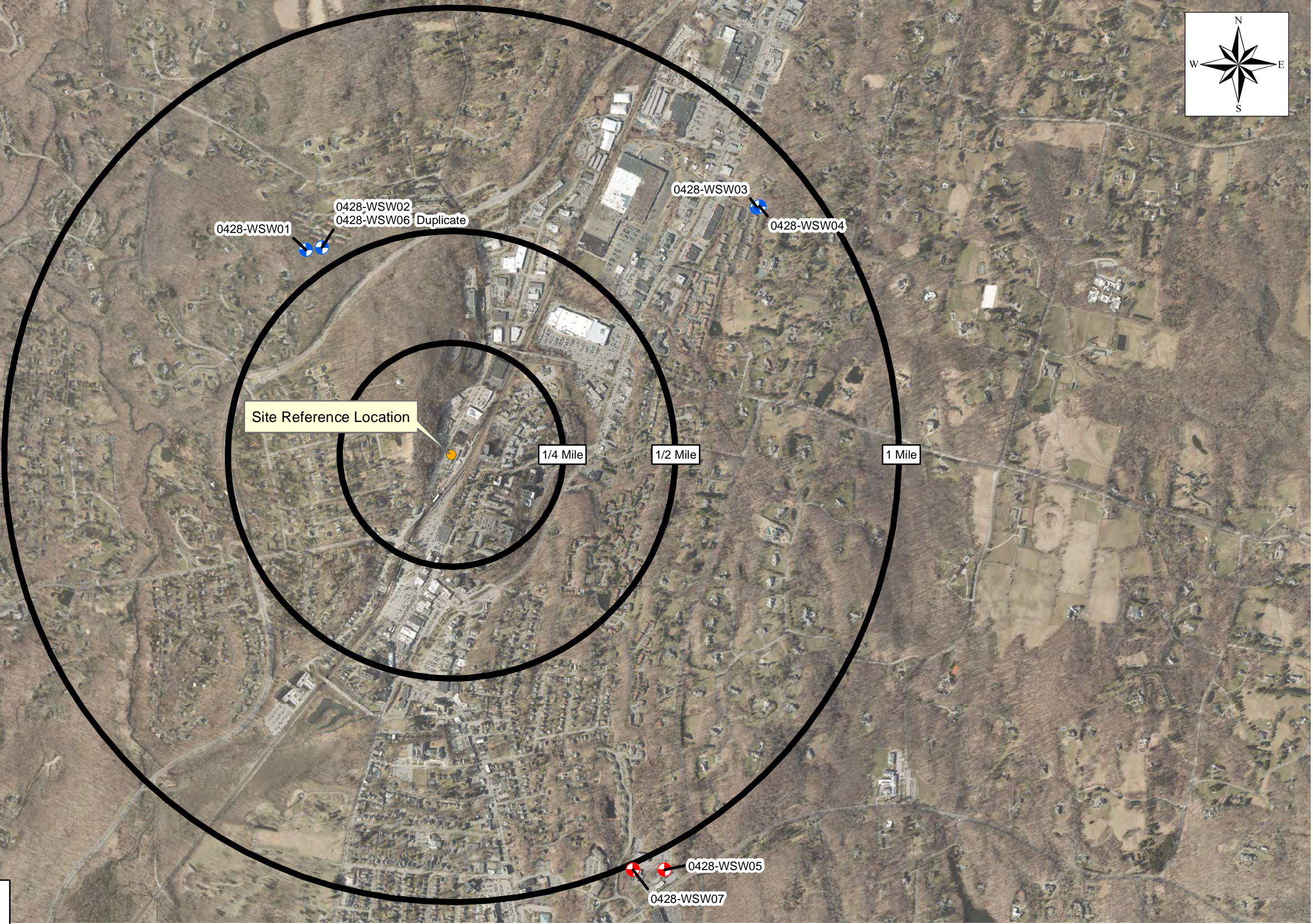
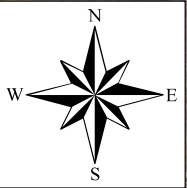
Date: 12/13/2016

Table 1
Sample Descriptions
Canadian Radium & Uranium Corp.
Mount Kisco, New York

SAMPLE NUMBER	DATE	TIME	COMMENTS
0428-WSW01	12/6/16	09:35	Aqueous sample collected from the Ramleh Water Works Corp. Inc. public water supply system (PWSID NY5922912) Well 1, one of two active water supply wells that serve the Deer Ridge residential community at this location.
0428-WSW02	12/6/16	10:00	Aqueous sample collected from the Ramleh Water Works Corp. Inc. public water supply system (PWSID NY5922912) Well 2, one of two active water supply wells that serve the Deer Ridge residential community at this location.
0428-WSW03	12/6/16	08:45	Aqueous sample collected from the 796 Bedford Road Apartments public water supply system (PWSID NY5930069) Well 1, one of two active water supply wells that serve the residential community at this location.
0428-WSW04	12/6/16	08:15	Aqueous sample collected from the 796 Bedford Road Apartments public water supply system (PWSID NY5930069) Well 2, one of two active water supply wells that serve the residential community at this location.
0428-WSW05	12/6/16	11:11	Aqueous sample collected from the Northern Westch Prof. Pk.101 public water supply system (PWSID NY5922308) well, an active water supply well that serves the professional building at 101 South Bedford Road.
0428-WSW06	12/6/16	10:02	Duplicate of 0428-WSW02 for QA/QC purposes.
0428-WSW07 (Lab QC)	12/6/16	13:18	Aqueous sample collected from the Northern Westchester 103-105 public water supply system (PWSID NY5930006) well, an active water supply well that serves the professional buildings at 103 and 105 South Bedford Road. Double volume for laboratory quality control (QC) purposes.

FIGURE 1
SAMPLE LOCATION MAP

Document Path: P:\SAT\2016 NY RAD Sites\Canadian_Radium_Uranium\MXD\19090_CRU_Sample_Loc.mxd

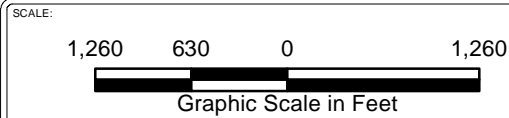


Legend

- Site Reference Point
- Active Community Well Sample Location⁽²⁾
- Active Non-Transient Non-Community Well Sample Location⁽²⁾

SOURCES:

1. Westchester County High Resolution Orthoimage 2013, Sai Pinnepalli, IIC Technologies, Inc. Manager, GIS Services, April 2013.
2. Well information provided by the USEPA on June 10th, 2013.
3. U.S Department of the Interior, Fish and Wildlife Service, St. Petersburg, FL. National Wetlands Inventory. <http://www.nwi.fws.gov>. Date January 1st, 2013.



PROJECT: Canadian Radium & Uranium Corp.
TDD No. 0004/1611-05

CLIENT NAME: EPA

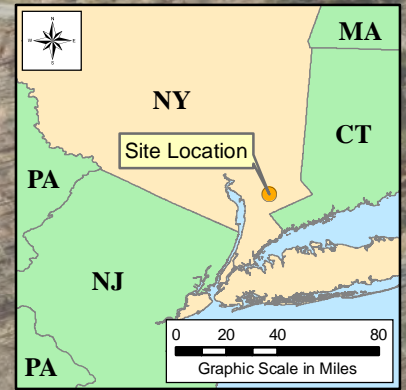
TITLE: Sample Location Map - December 6, 2016
Water Supply Well Sampling
Site Reassessment
Canadian Radium & Uranium Corp.



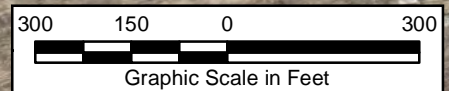
DATE: December 2016

FIGURE #: 1



FIGURE 2A
SAMPLE LOCATION MAP



Source:
 1. High Resolution Orthoimagery. United States Geological Survey (USGS).
 Acquisition Date: April 2013. https://lta.cr.usgs.gov/high_res_ortho.
 2. Well information provided by the USEPA on June 10th, 2013.



LEGEND:

-  Wellhouse Location
-  Active Community Well Sample Location⁽²⁾

PROJECT:

Canadian Radium & Uranium Corp.
 TDD No. 0004/1611-05

CLIENT NAME:

EPA

TITLE:

Sample Location Map
 Ramleh Water Works Corp. Inc.
 Site Reassessment
 Canadian Radium & Uranium Corp.



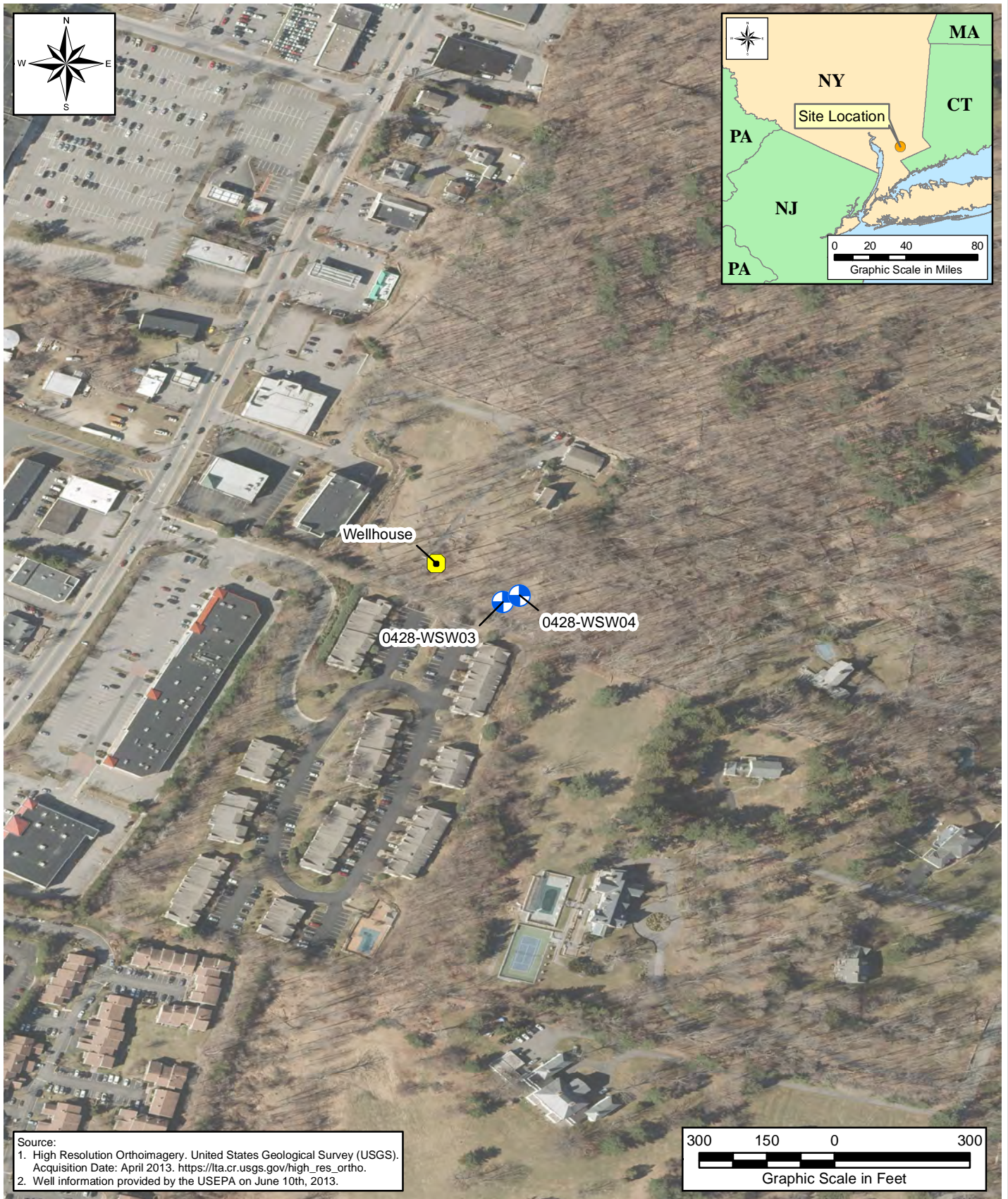
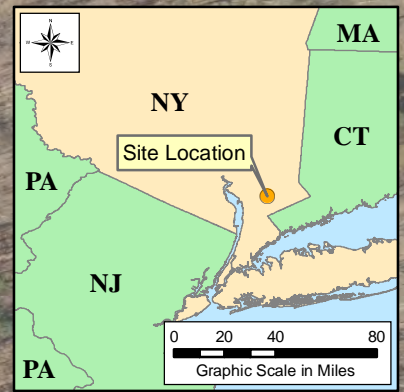
DATE:

December 2016

FIGURE #:



2A

FIGURE 2B
SAMPLE LOCATION MAP



Source:
1. High Resolution Orthomagery. United States Geological Survey (USGS).
Acquisition Date: April 2013. https://ita.cr.usgs.gov/high_res_ortho.
2. Well information provided by the USEPA on June 10th, 2013.

LEGEND:

-  Wellhouse Location
-  Active Community Well Sample Location⁽²⁾

PROJECT:

Canadian Radium & Uranium Corp.
TDD No. 0004/1611-05

CLIENT NAME:

EPA

TITLE:

Sample Location Map
796 Bedford Road Apartments
Site Reassessment
Canadian Radium & Uranium Corp.



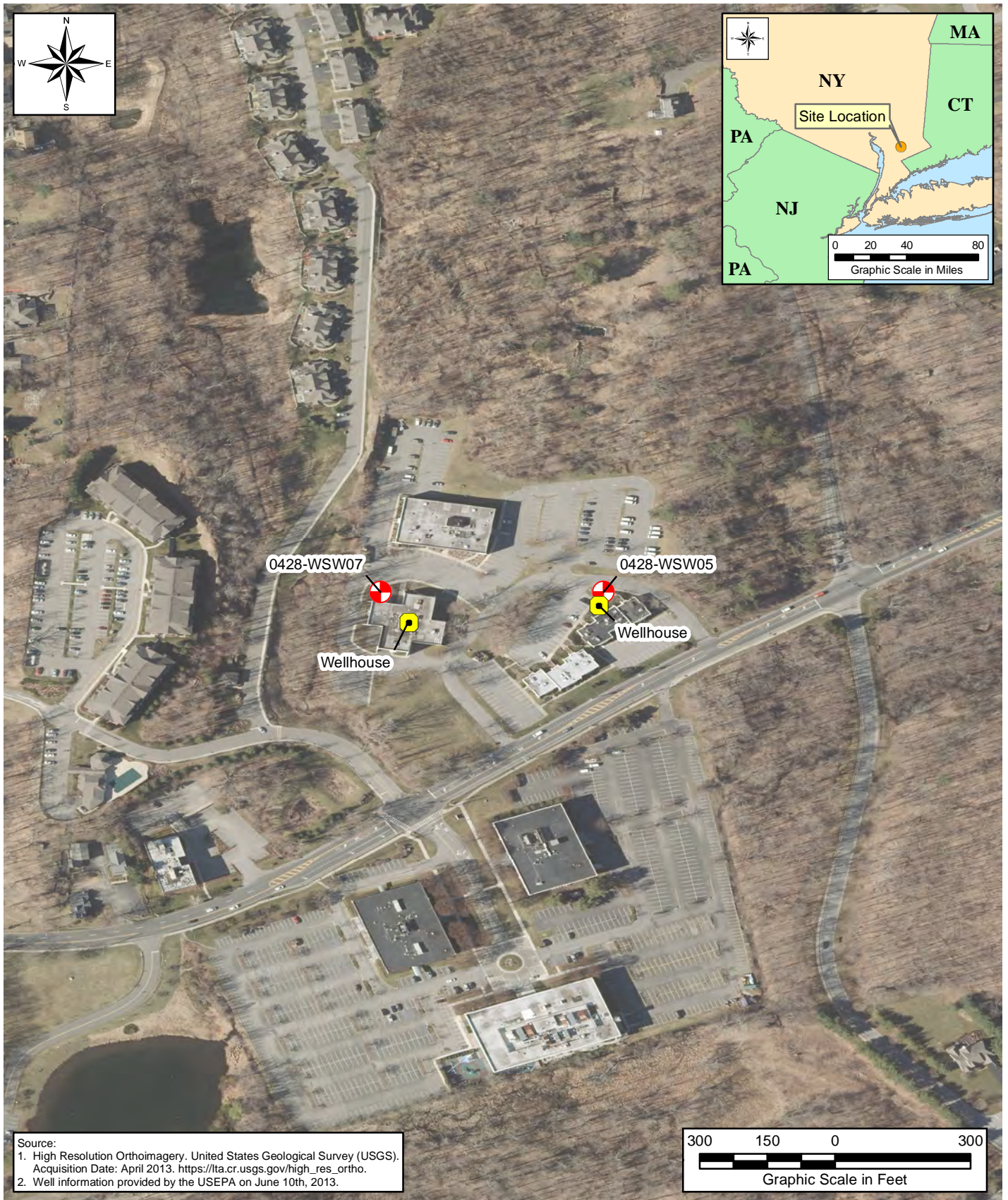
DATE:

December 2016

FIGURE #:

2B

FIGURE 2C
SAMPLE LOCATION MAP



Source:
1. High Resolution Orthoimagery. United States Geological Survey (USGS).
Acquisition Date: April 2013. https://lta.cr.usgs.gov/high_res_ortho.
2. Well information provided by the USEPA on June 10th, 2013.

LEGEND:



Wellhouse Location



Active Non-Transient Non-Community
Well Sample Location⁽²⁾

PROJECT:

Canadian Radium & Uranium Corp.
TDD No. 0004/1611-05

CLIENT NAME:

EPA

TITLE:

Sample Location Map
Northern Westch Professional Park
Site Reassessment
Canadian Radium & Uranium Corp.



DATE:

December 2016

FIGURE #:

2C

ATTACHMENT 1
CHAIN OF CUSTODY RECORD
AND AIR WAYBILL

Airbill No: 8106 1596 1443

CHAIN OF CUSTODY RECORD

Site #: 0428

Contact Name: Caroline Tuero

Contact Phone: (732) 417-5869

No: 2-120616-155527-0001

Cooler #: 1 of 1

Lab NAREL

Lab Phone: (334) 270-3433

[illegible]

Special Instructions: 0428-WSW07 is designated for lab QC

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Sampling	Denise Green FOR CAROLINE TVERD (WESTON) Region 2	17:00/ 12/6/16	FEDEX	17:00/ 12/6/16	



Package
US Airbill

FedEx Tracking Number 8106 1596 1443

1 From Please print and press hard.

Date 12/6/16 Sender's FedEx Account Number 3 6 7 2 - 5 8 8 3 - 7

Sender's Name Caroline Turo Phone (732) 417 5869

Company WESTON SOLUTIONS, INC

Address 205 CAMPUS DR.

City EDISON State NJ ZIP 08837

2 Your Internal Billing Reference

3 To Recipient's Name Tonya Hudson Phone 334 270-3433

Company National Analytical Radiation Environmental Laboratory (NAREL)

Address We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Floor

Address 540 South Morris Ave

City Montgomery State AL ZIP 36115



Ship it. Track it. Pay for it. All online.
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Form ID No. 0200 Sender's Copy

4 Express Package Service

* To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the
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Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Priority Overnight
Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☒ FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M.
Second business morning. Saturday Delivery NOT available.
- ☐ FedEx 2Day
Second business afternoon. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Express Saver
Third business day. Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.

- ☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

- ☐ Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
- ☒ No Signature Required
Package may be left without obtaining a signature for delivery.
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Someone at recipient's address may sign for delivery.
- ☐ Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

- ☒ No ☐ Yes
As per attached Shipper's Declaration. ☐ Yes
Shipper's Declaration not required. ☐ Dry Ice
Dry Ice, 8, UN 1845 x kg
- Restrictions apply for dangerous goods — see the current FedEx Service Guide. ☐ Cargo Aircraft Only

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- ☒ Sender Acct. No. in Section I will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
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ATTACHMENT 2
FIELD LOGBOOK NOTES

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A patented, environmentally
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notes survive the rigors of the field,
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Canadian Radium &
Uranium Corp.



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ALL-WEATHER

FIELD

Nº 351FX

WO#: 20408.012.004.0428.00

DCN: W0428.3B.01182



Name Canadian Radium &
Uranium corp.
 Address 205 campus Dr.
Edison NJ 08837
 Phone 732-417-5800

Project _____



RiteintheRain.com

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PAGE	REFERENCE	DATE
2-9	December Water Supply Well Sampling Event	12/6/16
10	LATE NOTE Well info	12/8/16

Canadian Radium & Uranium 12/6/16

Personnel: Denise Breen (DB) WESTON
Caroline Tvero (CT) WESTON — (DB)

Weather: Partly cloudy - cold - temps
from 25°F - 40°F — (DB)

Scope of Work: Collect ground water
samples from active water supply
wells for analysis by NAREL lab
for the following analysis: Gamma
Spectrometry Am/50P-3, Rev 6,
Gross Alpha and Beta Am/50P-4
Rev 6, Radium-226 Am/50P-14
Rev 2, Isotopic Uranium Am/50P-1
Rev 8, and Isotopic Thorium Am/50P-1
Rev 8. Each sample will be
collected directly into the sample
container from the spigot after
ample purge and water quality
monitoring. Samples will be
preserved in the field with HNO_3
to $\text{pH} < 2$. One environmental
field duplicate will be collected.
One extra volume of a sample
will be collected and submitted to
the lab as a lab QC sample.

Denise Breen 12/6/16

Canadian Radium & Uranium 12/6/16

A total of six samples will be
collected from five active wells.

0730 Arrive at Bedford Rd. Apartments
Meet with Dale Post in parking
lot. He will bring us to both
well locations. — (DB)

0740 Start purge on well #2. Photo #1
of well house at end of private
road for Bedford Apartments.
Photo #2 of both wells located
in well house for Bedford
Apartments. — (DB)

0745 DB confirms with Dale that
both sampling spigots are
raw water from well. CT
starts up pre-calibrated
YSI 650 MDX serial # 0692302F
with YSI probe model # 600XL 13M
SN: 0110629. — (DB)

0750 DB take photo of well 1 (WSW03)
and well 2 (WSW04) locations
CT collects GPS point of 1) well
house 2) well 1 (WSW03) and
3) well 2 (WSW04). — (DB)

Denise Breen 12/6/16

12/6/16

- 0755 CT start water quality readings on water from well 2 (WSW04). Photo of CT collecting water quality readings. (DB)
- 0810 Water quality readings continue.
- 0815 CT collects 0428-WSW04 from NY5930069 - Bedford Rd. Apartments well #2. Photo of CT collecting WSW04; photo of both well spigots. ~~purging well 1~~
- 0818 Start purging Bedford Apartments well 1 (WSW03). (DB)
- 0832 Purge complete. Start water quality readings on WSW03.
- 0845 CT collects 0428-WSW03 from Bedford Rd. Apartments well 1.
- 0850 Weston done - leave for Ramleh Water Works / Deer Ridge. wells
- 0900 Arrive at Ramleh Water Works / Deer Ridge Apartments. Meet w/ Brian VanDerhoff at wells. CT collects GPS points at well house. (DB)
- 0908 Start purge at well 1. at Ramleh.

Denise Breen 12/6/16

12/6/16

5

- DB take photos of the wells.
- 0925 CT starts water quality monitoring. (DB)
- 0935 CT collects 0428-WSW01 (Ramleh Water Works / Deer Ridge Rd) well #1. Purge begins at 0935 for well #2. DB takes photos of 1) both well spigots and 2) well house. (DB)
- 0950 CT starts water quality monitoring.
- 1000 CT collects 0428-WSW02 from ~~1000~~ well #2 at Ramleh Water Works / Deer Ridge Rd. well.)
- 1002 CT collects field duplicate 0428-WSW06 from well #2.
- 1005 Done at Ramleh - move to ~~North West~~ Northern Westchester Professional Park.
- 1015 Arrive at Professional Park and meet with Rich Kane.
- 1030 Start purge for 30 minutes. Rich Kane will assist with sample collection due to sampling spigot being located under

Denise Breen 12/6/16

SAMPLE COLLECTION

SAMPLE ID	TIME	NOTE
WSW04	08:15	Bedford Well 2
WSW03	08:45	Bedford Well 1
WSW01	09:35	Ramleh Well 1
WSW02	10:00	Ramleh Well 2
WSW06	10:02	Dup of WSW02
WSW05	11:11	Prof. Park 101
WSW07	13:18	Prof. Park 103 * lab QC *

12/6/16

walk way bridge. It collects GPS point of well location and the pump location (sampling spigot). Holding tank is likely 500 gallons. (20)

1100 CT starts water quality readings. DB calls Allied Pollution Control to attempt to collect sample from other well at Northern Westchester Professional Park. Photo of the water quality monitoring and of well location.

1111 Rich Korte assists with sample collection for 0428-WSW05 from well spigot at Professional Park Building 101. (20)

1115 John Muro from Allied calls back and states that we can collect sample from other well in the professional park (Building 103) which service buildings 103 and 105. He will be Allied representative will be at location at 1230. (20)

DB
Dense Breen 12/6/16

Dense Breen 12/6/16

8 Canadian Radium & Uranium 12/6/16

- 1120 WESTON leaves site for lunch.
LATE NOTE: Andrew Fessler, EPA is on-site at 0930. He will be with us while we sample today.
- 1230 DB, CT and Andrew Fessler back from lunch - waiting at 103 South Bedford Rd. Professional Park for Allied Representative.
- 1235 Ron Gariolo from Allied meet with team to show well house. Start purge. Will purge for 30 minutes. There ~~is~~ are three 119 gallon pressure tanks / holding tanks, UV and filtration - will sample raw water. CT collects GRS point - since it is under the building - CT collect GRS point outside of building. Injection of 'CARVUS'™ 4500 after raw water spigot. DB
- 1245 Still purging. DB take photo of well and purge spigot. and raw water tap ~~spigot~~ spigot. DB

Danise Breen 12/6/16

9 Canadian Radium & Uranium 12/6/16

- 1305 CT starts water quality readings at WSW07. This will be a lab QC. Ron shows DB the well location. Photo of well location.
- 1318 CT collects 0428-WSW07 * QC for lab volume collected. Photo of sample collection.
- 1325 Collect GRS point at well location.
- 1345 WESTON and EPA off site. Mobilize back to office to conduct sample management.
- ~~500~~ One cooler under airbill #
1700 8106 1596 1443 with the
COC# 2-120616-155527-00001



Danise Breen 12/6/16

Canadian Radium Uranium 12/6/16

LATE NOTE Rich Kane, ~~from~~ ^{DB}
 environmental consultant for
 101 South Bedford Rd, Professional
 Park was on phone with
 unknown person obtaining well
 info. DB

Well 101 - 180 feet, 25 gal/min.
 with 3 HP - 2005 sleeve installed
 in well. DB

Well 103 - 185 ft., 25 gal/min
 with 3 HP pump. DB

Information was obtained from
 Rich Kane on 12/6/2016 during
 purge of 0428-WSW05. DB

Dan Green 12/6/16

ATTACHMENT 3
WATER QUALITY LOGS

GROUNDWATER SAMPLING LOG (Low-Flow)

Client: US EPA
 Site Location: MOUNT KISCO, NY
 Field Team Leader: Denise Breen

Weston Project: Canadian Radium and Uranium Corp
 Weston's Project No.: 20408.012.004.0428.00
 Project Manager: Gerald Gilliland

Page 1 of 1

Monitoring Well: 0428-WSW04
 Supply Well: NA

(1) Depth to Water (feet): NA
 (2) Depth to Product (feet): NA
 (3) Total Well Depth (feet): NA
 (4) Casing Diameter (inches): NA
 (5) Water Column Volume (gallons): NA

Date: 12/6/16
 Samplers: Caroline Tvers

Weather Conditions: cold, cloudy, no wind

(5) = [(3) - (1)] * C (values of C: 0.16 gal/ft for 2" well and 0.66 gal/ft for 4" well)

Purging Information

Start Time: 0740
 End Time: 0801
 Purge Rate (gpm / lpm): NA
 Total Volume Removed (gallons): NA

Purge Method

(circle method)
Centrifugal pump
 Submersible Pump
 Bailer

Other: _____

Misc. Info:

Pump Intake (ft bgs): unknown
 Screened Interval (ft): NA
 Well Permit ID: NA
 Stick-up/Flushmount: NA

Time	0802	0805	0808	0811					
Volume (gallons/liters)									
Depth to Water (DTW)									
Rate									
pH	6.67	6.71	6.72	6.70					
Temperature (deg. C)	11.90	11.73	11.82	11.68					
Conductivity (mS/cm)	0.396	0.388	0.387	0.383					
DO (mg/L)	2.29	2.88	2.19	2.91					
Turbidity (NTU)									
ORP									
Odor/Film									
Other:									

If Low Flow Sampling - Volume of Flow Thru Cell X

Sampling Information

Sample ID: WSW04 0428-WSW04
 Sample Time: 0815 Sampling Method/Equipment: 4L container

Analyte Group	Bottle Type	Number	Preservation	Method #
VOGs <u>13</u>				

Stabilization Order/Range

Three successive readings within:
 (Readings taken every 5 minutes)
 DTW = < 0.3 feet
 Rate = < 500 ml/min
 pH = +/- 0.1
 Temp. = +/- 3%
 SC = +/- 3%
 DO = +/- 10%
 Turb = +/- 10%, for values > 1 NTU
 ORP/Eh = +/- 10 mV

Metals Filtered? Y N N/A QA/QC Samples? Y N If yes, Type: _____
 Sample Rate (ml/minute): _____ Sample ID: _____ Sample Time: _____

Comments/Observations:

Signatures:

Field Team Leader: Denise Breen
 Reviewer: _____
 Reviewer Title: _____

Date: 12/6/16
 Date: _____
 Date: _____



Weston Solutions
 205 Campus Drive
 Edison, NJ 08837

GROUNDWATER SAMPLING LOG (Low-Flow)

Client: US EPA
 Site Location: Mount Kisco, NY
 Field Team Leader: Denise Breen

Weston Project: Canadian Radium and Uranium Corp.
 Weston's Project No.: 20408.012.004.0428.00
 Project Manager: Gerald Gilliland

Page 1 of 1

Monitoring Well: 0428-WSW03

Supply

(1) Depth to Water (feet): NA
 (2) Depth to Product (feet): NA
 (3) Total Well Depth (feet): NA
 (4) Casing Diameter (inches): NA
 (5) Water Column Volume (gallons): NA

(5) = [(3) - (1)] * C (values of C: 0.16 gal/ft for 2" well and 0.66 gal/ft for 4" well)

Date: 12/6/16
 Samplers: Caroline Ivers

Weather Conditions: cold, cloudy, no wind

Purging Information

Purge Method

(circle method)

Centrifugal pump

Submersible Pump

Bailer

Other: _____

Misc. Info:

Pump Intake (ft bgs): unknown

Screened Interval (ft): NA

Well Permit ID: NA

Stick-up/Flushmount: NA

Start Time: 0818
 End Time: 0832
 Purge Rate (gpm / lpm): NA
 Total Volume Removed (gallons): NA

Time	0833	0836	0839	0842					
Volume (gallons/liters)									
Depth to Water (DTW)									
Rate									
pH	7.02	7.11	7.17	7.20					
Temperature (deg. C)	0.374	11.25	11.55	11.51					
Conductivity (mS/cm)	10.86	0.378	0.378	0.380					
DO (mg/L)	3.59	3.00	3.34	3.11					
Turbidity (NTU)									
ORP									
Odor/Film									
Other:									

If Low Flow Sampling - Volume of Flow Thru Cell X

Sampling Information

Sample ID: 0428-WSW03

Sample Time: 0845 Sampling Method/Equipment: 4L Container

Analyte Group	Bottle Type	Number	Preservation	Method #
VOCs				(C)

Stabilization Order/Range

Three successive readings within:

(Readings taken every 5 minutes)

DTW = < 0.3 feet

Rate = < 500 ml/min

pH = +/- 0.1

Temp. = +/- 3%

SC = +/- 3%

DO = +/- 10%

Turb = +/- 10%, for values > 1 NTU

ORP/Eh = +/- 10 mV

Metals Filtered? Y N

Sample Rate (ml/minute): _____

QA/QC Samples? Y N

Sample ID: _____ Sample Time: _____

If yes, Type: _____

Comments/Observations:

Signatures:

Field Team Leader: Denise Breen
 Reviewer: _____
 Reviewer Title: _____

Date: 12/6/16
 Date: _____
 Date: _____



Weston Solutions
 205 Campus Drive
 Edison, NJ 08837

GROUNDWATER SAMPLING LOG (Low-Flow)

Client: US EPA
 Site Location: Mount Kisco, NY
 Field Team Leader: Denise Breen

Weston Project: Canadian Radium and Uranium Corp.
 Weston's Project No.: 20408.012.004.0428.00
 Project Manager: Gerald Gilliland

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Monitoring Well: 0428-WSW01
Supply

(1) Depth to Water (feet): NA
 (2) Depth to Product (feet):
 (3) Total Well Depth (feet):
 (4) Casing Diameter (inches):
 (5) Water Column Volume (gallons):

Date: 12/6/6
 Samplers: Caroline Tvera

Weather Conditions: cold, cloudy, no wind

(5) = [(3) - (1)] * C (values of C: 0.16 gal/ft for 2" well and 0.66 gal/ft for 4" well)

Purging Information

Purge Method

Misc. Info:

Start Time: 0908
 End Time: 0924
 Purge Rate (gpm / lpm):
 Total Volume Removed (gallons):

(circle method) ~
Centrifugal pump
 Submersible Pump
 Bailor

Pump Intake (ft bgs): unknown
 Screened Interval (ft):
 Well Permit ID:
 Stick-up/Flushmount:

Time	0925	0928	0931	0934					
Volume (gallons/liters)									
Depth to Water (DTW)									
Rate									
pH	7.28	7.27	7.16	7.08					
Temperature (deg. C)	9.60	10.46	10.70	10.84					
Conductivity (mS/cm)	0.451	0.544	0.542	0.613					
DO (mg/L)	8.16	6.84	5.65	6.02	5.81				
Turbidity (NTU)									
ORP	147.5	121.8	110.5	97.4					
Odor/Film									
Other:									

If Low Flow Sampling - Volume of Flow Thru Cell X

Sampling Information

Sample ID: 0428-WSW01
 Sample Time: 0935 Sampling Method/Equipment: 4L Container

Analyte Group	Bottle Type	Number	Preservation	Method #
VEGs				

Stabilization Order/Range

Three successive readings within:

(Readings taken every 5 minutes)

DTW = < 0.3 feet

Rate = < 500 ml/min

pH = +/- 0.1

Temp. = +/- 3%

SC = +/- 3%

DO = +/- 10%

Turb = +/- 10%, for values > 1 NTU

ORP/Eh = +/- 10 mV

Metals Filtered? Y N

QA/QC Samples? Y N

If yes, Type:

Sample Rate (ml/minute):

Sample ID:

Sample Time:

Comments/Observations:

Signatures:

Field Team Leader: Denise Breen
 Reviewer:
 Reviewer Title:

Date: 12/6/16
 Date:
 Date:



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 205 Campus Drive
 Edison, NJ 08837

GROUNDWATER SAMPLING LOG (Low-Flow)

Client: US EPA
 Site Location: Mount Kisco, NY
 Field Team Leader: Denise Breen

Weston Project: Canadian Radium and Uranium Corp.
 Weston's Project No.: 20408.012.004.0428.00
 Project Manager: Gerald Gilliland

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Monitoring Well: 0428-WSW02 / WSW06 (DUP)

Supply
 (1) Depth to Water (feet): NA
 (2) Depth to Product (feet):
 (3) Total Well Depth (feet):
 (4) Casing Diameter (inches):
 (5) Water Column Volume (gallons):

Date: 12/6/16
 Samplers: Caroline Tivero

Weather Conditions: cold, cloudy, no wind

(5) = [(3) - (1)] * C (values of C: 0.16 gal/ft for 2" well and 0.66 gal/ft for 4" well)

Purging Information

Purge Method

Misc. Info:

Start Time: 0935
 End Time: 0949
 Purge Rate (gpm / lpm): NA
 Total Volume Removed (gallons): NA

(circle method)
Centrifugal pump
 Submersible Pump
 Bailor

Pump Intake (ft bgs): unknown
 Screened Interval (ft):
 Well Permit ID:
 Stick-up/Flushmount:

Time	0950	0953	0956	1000					
Volume (gallons/liters)									
Depth to Water (DTW)									
Rate									
pH	6.86	6.97	6.96	6.95					
Temperature (deg. C)	10.27	10.31	10.34	10.33					
Conductivity (mS/cm)	0.686	0.679	0.674	0.631					
DO (mg/L)	4.82	4.76	4.95	5.33					
Turbidity (NTU)									
ORP	85.0	95.1	103.3	114.4					
Odor/Film									
Other:									

If Low Flow Sampling - Volume of Flow Thru Cell X

Sampling Information

Sample ID: 0428-WSW02 / 0428-WSW06 (Duplicate)
 Sample Time: 1000 Sampling Method/Equipment: 4L cubitator

Analyte Group	Bottle Type	Number	Preservation	Method #
VOEs				

Stabilization Order/Range

Three successive readings within:
 (Readings taken every 5 minutes)
 DTW = < 0.3 feet
 Rate = < 500 ml/min
 pH = +/- 0.1
 Temp. = +/- 3%
 SC = +/- 3%
 DO = +/- 10%
 Turb = +/- 10%, for values >1 NTU
 ORP/Eh = +/- 10 mV

Metals Filtered? Y N QA/QC Samples? Y N If yes, Type:
 Sample Rate (ml/minute): Sample ID: Sample Time:

Comments/Observations:

Collected duplicate sample 0428-WSW06 at this location at 10:02

Signatures:

Field Team Leader: Denise Breen
 Reviewer:
 Reviewer Title:

Date: 12/6/16
 Date:
 Date:



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GROUNDWATER SAMPLING LOG (Low-Flow)

Client: US EPA
 Site Location: Mount Kisco, NY
 Field Team Leader: Denise Breen

Weston Project: Canadian Radium and Uranium Corp
 Weston's Project No.: 20406.012.004.0428.00
 Project Manager: Gerald Gilliland

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Monitoring Well:

Supply
 (1) Depth to Water (feet): NA
 (2) Depth to Product (feet):
 (3) Total Well Depth (feet):
 (4) Casing Diameter (inches):
 (5) Water Column Volume (gallons):

Date: 12/6/16
 Samplers: Caroline Tivero

Weather Conditions: cold, cloudy, no wind

(5) = [(3) - (1)] * C (values of C: 0.16 gal/ft for 2" well and 0.66 gal/ft for 4" well)

Purging Information

Start Time: 1030
 End Time: 1059
 Purge Rate (gpm / lpm): NA
 Total Volume Removed (gallons): NA

Purge Method

(circle method)

Centrifugal pump

Submersible Pump

Bailer

Other:

Misc. Info:

Pump Intake (ft bgs): unknown
 Screened Interval (ft):
 Well Permit ID:
 Stick-up/Flushmount:

Time	1100	1103	1106	1109					
Volume (gallons/liters)									
Depth to Water (DTW)									
Rate									
pH	6.67	6.75	6.78	6.79					
Temperature (deg. C)	12.05	12.27	12.42	12.34					
Conductivity (mS/cm)	2.227	2.263	2.264	2.270					
DO (mg/L)	4.24	5.22	5.40	4.04					
Turbidity (NTU)									
ORP	171.3	171.5	172.4	172.2					
Odor/Film									
Other:									

If Low Flow Sampling - Volume of Flow Thru Cell X

Sampling Information

Sample ID: 0428-WSW05
 Sample Time: 1111

Sampling Method/Equipment: 4L Container

Analyte Group	Bottle Type	Number	Preservation	Method #
<u>VOCs</u>				

Stabilization Order/Range

Three successive readings within:
 (Readings taken every 5 minutes)
 DTW = < 0.3 feet
 Rate = < 500 ml/min
 pH = +/- 0.1
 Temp. = +/- 3%
 SC = +/- 3%
 DO = +/- 10%
 Turb = +/- 10%, for values > 1 NTU
 ORP/Eh = +/- 10 mV

Metals Filtered? Y N QA/QC Samples? Y N If yes, Type:
 Sample Rate (ml/minute): Sample ID: Sample Time:

Comments/Observations:

Signatures:

Field Team Leader: Denise Breen
 Reviewer:
 Reviewer Title:

Date: 12/6/16
 Date:
 Date:



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GROUNDWATER SAMPLING LOG (Low-Flow)

Client: US EPA
 Site Location: Mount Kisco, NY
 Field Team Leader: Denise Breen

Weston Project: Canadian Radium and Uranium Corp.
 Weston's Project No.: 20408.012.004.0428.00
 Project Manager: Gerald Gilliland

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Monitoring Well: 0428-WSW07 (double volume)

Supply

(1) Depth to Water (feet): NA
 (2) Depth to Product (feet): 1
 (3) Total Well Depth (feet): 1
 (4) Casing Diameter (inches): 1
 (5) Water Column Volume (gallons): NA

Date: 12/6/16

Samplers: Caroline Tvers

Weather Conditions: cold, cloudy, no wind

(5) = [(3) - (1)] * C (values of C: 0.16 gal/ft for 2" well and 0.66 gal/ft for 4" well)

Purging Information

Purge Method

(circle method)

Centrifugal pump

Submersible Pump

Bailer

Other: _____

Misc. Info:

Pump Intake (ft bgs): UNKNOWN

Screened Interval (ft): 1

Well Permit ID: 1

Stick-up/Flushmount: 1

Start Time: 1235
 End Time: 1304
 Purge Rate (gpm / lpm): NA
 Total Volume Removed (gallons): NA

Time	1305	1306	1311	1314	1317				
Volume (gallons/liters)									
Depth to Water (DTW)									
Rate									
pH	7.20	6.85	6.77	6.70	6.66				
Temperature (deg. C)	13.95	14.10	14.11	14.21	14.12				
Conductivity (mS/cm)	0.813	0.791	0.795	0.791	0.790				
DO (mg/L)	7.22	6.19	6.23	5.56	6.01				
Turbidity (NTU)	-	-	-	-	-				
ORP	219.7	225.3	228.3	231.3	234.5				
Odor/Film									
Other:									

If Low Flow Sampling - Volume of Flow Thru Cell X

Sampling Information

Sample ID: 0428-WSW07

Sample Time: 1318

Sampling Method/Equipment: 4L Container

Analyte Group	Bottle Type	Number	Preservation	Method #
VOCs <u>(CT)</u>				<u>(CT)</u>

Stabilization Order/Range

Three successive readings within:

(Readings taken every 5 minutes)

DTW = < 0.3 feet

Rate = < 500 ml/min

pH = +/- 0.1

Temp. = +/- 3%

SC = +/- 3%

DO = +/- 10%

Turb = +/- 10%, for values > 1 NTU

ORP/Eh = +/- 10 mV

Metals Filtered? Y N

Sample Rate (ml/minute): _____

QA/QC Samples? Y N

Sample ID: _____

If yes, Type: _____

Sample Time: _____

Comments/Observations:

Collected double volume, designated for lab QC

Signatures:

Field Team Leader: Denise Breen

Reviewer: _____

Reviewer Title: _____

Date: 12/6/16

Date: _____

Date: _____



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ATTACHMENT 4

PHOTOLOG

Photographs

Contract No./WO Number	Site Name/Location	Date	Page
EP-S8-13-01	Canadian Radium & Uranium Corp.	12/6/2016	Page 1 of 5
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Photograph 1 –
View inside of
the 796 Bedford
Road
Apartments well
house were
0428-WSW03
and 0428-
WSW04 were
collected.



Photograph 2 – Samples were collected directly into the pre-preserved (HNO_3 to pH <2) 4-liter plastic container.

Photographs

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Photograph 3 – View of 796 Bedford Road Apartments well house.



Photograph 4 – View of Well #1 at 796 Bedford Road Apartments.

Photographs

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Photograph 5 – View inside Ramleh Water Works Corp. Inc. well house were 0428-WSW01, 0428-WSW02/ field duplicate 0428-WSW06 were collected.



Photograph 6 – View of Ramleh Water Works Corp. Inc. well house.

Photographs

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Photograph 7 – View of well at Building 101 Northern Westch Professional Park (0428-WSW05).



Photograph 8 – View of Building 101 Westch Professional Park well house.

Photographs

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Photograph 9 – View of sample collection at Building 103 Westch Professional Park (0428-WSW07).