START V TECHNICAL DIRECTION FORM

ACTIVITY:	Removal Assessment - Analytical
START DATE/COMPLETION DATE:	01/22/2020 / 06/30/2020
TD #:	68HE0219F0032/0069-002
TASK MONITOR:	Daniel Gaughan
SITE CODE:	A23P
CERCLIS CODE:	NYD987001468
EPA SITE / PROJECT NAME:	CANADIAN RADIUM & URANIUM CORP / Canadian Radium Assessment Analytical
ADDRESS:	MT. KISCO AVENUE
COUNTY / CITY / STATE:	Westchester / MT. KISCO / NY
PRIORITY:	High
SOURCE OF FUNDS:	CERCLA - Removal
TRAVEL Required:	N
OVERTIME:	N

GENERAL SITE DESCRIPTION:

The site consists of a small area of radionuclide contamination. The area of observed contamination based on gamma screening is approximately 2,260.445 square feet. Based on previous investigations and soil sampling at the site, the residual contamination from former operations of the Canadian Radium and Uranium (CRU) facility is believed to be located throughout the 105 Kisco Avenue property. The site is bordered to the north by commercial properties; to the west by Kisco Avenue; to the south by Rail Road Avenue; and to the east by railroad tracks. The historic property is 2.72 acres and is currently occupied by a landscaping business (103 Kisco Ave.) and a stone, masonry, and landscaping business (105 Kisco Ave.). From 1943 until approximately 1966, the CRU facility operations included the recovery of uranium and other radioactive elements from uranium-bearing sludge, old instrumentation, and watch dials. This work began as part of the federal governments Manhattan Engineering District (Manhattan Project). From 1943 to the 1950s, the primary product was uranium; subsequently, radium became the principal product until the facility's closure.

In November and December 1966, the facility buildings were decontaminated and demolished. Removal of radioactive dirt to a depth of 12 inches was required on the premises and after demolition and decontamination, a post-operation survey was conducted. Between 1964 (predemolition/decontamination) and 1971 (post-demolition/ decontamination), the building layout of the site completely changed, and it is believed that none of the original facility buildings remained after the year 1971.

On April 20, 1979, a survey was performed by the Westchester County Department of Health that reported high readings from an area covering approximately one square yard of the property in an area not used by the public. The report indicated that the dose rates found did not pose a public health hazard to the public. In 1994, EPA conducted an on-site inspection to measure radon levels, collect air and soil samples, and measure exposure rates. Elevated exposure rate measurements were observed on both the northern and southern portions of the site property, but radon measurements were below EPA's guideline and air samples collected at the site did not detect any suspension of radioactive contamination. EPA concluded that the site was not a potential candidate for inclusion in the National Priorities List and, therefore, was not eligible for long-term remediation. In July 1998, a complete radiological survey of the site was conducted by the NYSDEC. The property at 103 Kisco Avenue was found to have contamination over one large unpaved area and a few smaller areas and at the property

at 105 Kisco Ave., indicated that radioactive materials were present under the parking lot. The report suggested that significant radium contamination was present on both the 103 and 105 Kisco Ave. properties, but they did not consider the site to be fully characterized at the completion of the survey.

Current site conditions are the site is semi-paved and completely fenced with an access gate. Many areas were unable to be screened due to obstructions and there were no elevated screening readings on the 103 Kisco Avenue property. Weston Solutions performed a complete gamma screening of the site on November 20-22, 2013 and significant readings were used to establish an area of observed contamination and soil samples were collected as part of the Site Reassessment sampling event for the site. Analytical results indicate concentrations of radionuclides found in the soil to be significantly higher than at background conditions. Air measurements were collected on November 25, 2013 and results indicated no elevated concentrations above background conditions. Sediment samples were collected on May 15, 2014 along the surface water pathway. Analytical data suggests that there is a release of site-attributable hazardous substances from the site.

DESCRIPTION OF WORK:

In accordance with the Statement of Work, Weston Solutions shall provide analytical support and perform the following activities:
1. Perform data validation of the radiological parameters for the samples that were collected from the Canadian Radium &Uranium Corp. Site, located in Mount Kisco, Westchester County, New York and analyzed through the EPA NAREL laboratory.
2. Data validation services will be for a total of 19 soil samples, including one field duplicate, and two rinsate blanks for isotopic thorium (Th-227, Th-228, Th-230, Th-232) and isotopic uranium (U-234, U-235,

U-238) via alpha spectroscopy, other gamma emitting isotopes (Bi-207, Bi-212, Bi-214, Cs-137, Eu-155, K-40, Pb-210, Pb-212, Pb-214, Ra-226, Ra-228, Th-234, Tl-208, U-235) via gamma spectroscopy, and Ra-226 and Ra-228 via 21-day ingrowth Method.

This request is replacing the ID/IQ TD (68HE0219F0013-0001) that was issued for a Weston CHP to complete the data validation.

In accordance with B-9 Local Clause EPA-B-32-103, Contractor will notify the Contracting Officer, in writing, at least 5 days prior to the date when, in the Contractor's best judgment, the work will reach the point at which the total amount payable by the Government, including any cost for termination for convenience, will approximate 85% of the total amount currently allotted to the Task Order for performance of the applicable items.

I certify that this technical direction document does not request services that are inherently governmental functions and that it does not alter the contract or task order (1) statement of work, (2) level of effort, (3) cost of performing the authorized work, (4) number of deliverables, or (5) the due dates of deliverables.

HOPE FREEMAN Digitally signed by HOPE FREEMAN
Date: 2020.01.22 08:51:49 -05'00'

Hope Freeman
Contracting Officer

Date