

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Materials of Management, Bureau of Hazardous Waste and
Radiation Management, Radioactive Materials Management Section
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Radioactive Materials Management Section

Trip Report

Site Name: Steelfields Area IV (C915204).

Date of Visit: 4/29/2025

Participants:

Derick Dietrich – NYSDEC – Environmental Radiation Specialist 1
Megan Kuczka – NYSDEC – Environmental Program Specialist 2
Jim Hul – BE3 – Technician
Kim Bartlett – Hailey and Aldrich
Rita Mager – G+W Roadmaster
Jordan Oliver – G+W Roadmaster

Reporting ERS: Derick Dietrich

Date: 5/12/2025

Purpose of Visit:

ERS visited this site to observe a gamma walkover survey conducted by BE3 personnel and to obtain confirmatory readings.

Instrumentation:

Region 9 #1 Ludlum Model 2241-2 w/44-10 NaI Probe

Region 9 #1 Ludlum Model 2241-2 w/44-09 probe (used for personnel frisking after site visit)

Region 9 Ludlum Model 19 Micro R Meter

Meter Background and Source Checks:

Pre-Survey Check (700 Delaware Ave, Buffalo NY)

2241-2 w/44-09 probe:

- *Background: 32 cpm*
- *Office* Cs-137 Source: 4,064 cpm*

2241-2 w/44-10 NaI probe:



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- *Background: 6,032 cpm*
- *Office* Cs-137 Source: 256,507 cpm*

Model 19:

- *Background: 3 μ R/hr*
- *Office* Cs-137 Source: 140 μ R/hr*

Pre-Survey Check (Near Tift Street and Rittling Blvd, Buffalo NY)

2241-2 w/44-09 probe:

- *Background: 54 cpm*
- *Field* Cs-137 Source: 2,005 cpm*

2241-2 w/44-10 NaI probe:

- *Background: 8,072 cpm*
- *Field* Cs-137 Source: 123,209 cpm*

Model 19:

- *Background: 3.5 μ R/hr*
- *Field* Cs-137 Source: 60 μ R/hr*

Post Survey Checks (100 Rittling Blvd, Buffalo NY)

2241-2 w/44-09 probe:

- *Background: 59 cpm*
- *Field* Cs-137 Source: 2,091 cpm*

2241-2 w/44-10 NaI probe:

- *Background: 7,002 cpm*
- *Field* Cs-137 Source: 117,062 cpm*

Model 19:

- *Background: 4 μ R/hr*
- *Field* Cs-137 Source: 65 μ R/hr*

*NOTE: Two Cs-137 sources were utilized for both pre- and post-survey checks. "Office Cs-137 source" has a higher reading and is only used for in office checks. "Field Cs-137 source" is only used in the field and gives off a much lower reading than the "office Cs-137 source"

Observations:

Background Location:

The ERS arrived at the site's parking lot (100 Rittling Blvd.) at the conclusion of the pre-survey meeting. The participants moved down the road to the railroad tracks to access the back of the site's property where the windrow of material was located at. The ERS discussed the details of the pre-survey meeting with the other participants including the BE3 technician, who would conduct the gamma walkover survey. The ERS inquired about the details of the survey including the background readings collected adjacent to the sites parking lot. The technician from BE3 recorded 5 background measurements

that ranged from approximately 9,200 to 9,600 counts per minute (CPM). The ERS then conducted the pre-survey check with both the Ludlum Model 19 and the Ludlum 2241 ratemeter paired with the 44-09 and 44-10 probes respectively. The background recorded with the 44-10 probe was approximately 8,072 cpm. Following the pre-survey check, both the BE3 technician and the ERS conducted the gamma walkover survey.

Gamma Walkover Survey:

The windrow of material was located adjacent to the railroad and separated by a small ditch filled with water. The BE3 technician and the ERS both jumped the small ditch to access the windrow and begin the gamma walkover survey. The length of the windrow was approximately 500 feet long and only certain areas were accessible due to the property's fence and vegetation.

The surveyors worked their way along the length of the windrow moving towards the northwest while using the 44-10 probe to measure the activity of the material. The windrow was made up of several different types of fill material which included slag, yellow brick, gravel, soil, and more. The range of count rates encountered by the ERS during the entire walkover ranged from 6 kcpm to 9 kcpm, with a few local exceedances between 10 kcpm and 11 kcpm. Some of these local exceedances were along the survey tract and characterized by exposed piles of fill, which included the slag and yellow brick. The count rate of the yellow brick material was approximately 10 kcpm, even when not surrounded by slag. The ERS collected additional readings at one of these slag piles that contained yellow brick fragments. The count rates observed at one of the slag piles ranged from 7.5 kcpm to 8.5 kcpm with a max count rate of 9.5 kcpm over some yellow brick fragments. The ERS collected a 1-minute static count at this slag pile which was 9,303 cpm. The BE3 surveyor and the ERS continued along the windrow until the edge of the property was reached. The BE3 technician surveyed the railroad side of the ditch while the ERS traversed back to the starting point. The BE3 technician informed the ERS that the count rates of the railroad side of the surveyed area was like the readings encountered along the windrow.

Once the survey was completed the participants discussed the results from the walkover and what the next steps would be for the site. Once the post-survey talks were completed, the DEC project manager showed the ERS where the BE3 surveyor collected the background measurements. Since the ERS was not present at the time the background was measured, they measured the background readings to verify BE3's background measurements. The 1-minute static count rate for this background area was 8,655 cpm, similar to BE3's background range of 9.2 kcpm to 9.6 kcpm. Following this background check the ERS conducted the post survey checks and concluded the site visit.

Surveys Performed:

The ERS utilized the Ludlum 2241 ratemeter paired with the 44-10 NaI Probe to survey a windrow of material along the rail line that contained slag and other fill material. Due to the overgrown vegetation the ERS was only able to survey certain sections along the entire windrow.

At the conclusion of the investigation, the 2241 with the 44-09 probe was used to frisk shoes to ensure that there was no contamination brought back from the surveyed area. No evidence of contamination was observed on footwear.

Attachments:

- 1. Overgrown vegetation along the survey area**
- 2. Example of exposed fill material encountered along windrow**
- 3. Close up photo of slag-like material encountered during the survey**
- 4. Close up photo of the “yellow brick” found sporadically along the windrow**
- 5. Close up photo of a local exceedance above 10 kcpm**
- 6. Photo of the ratemeter while surveying the local exceedance mentioned above**

1. Overgrown vegetation along the survey area



2. Example of exposed fill material encountered along windrow



3. Close up photo of slag-like material encountered during the survey



4. Close up photo of the “yellow brick” found sporadically along the windrow



5. Close up photo of a local exceedance above 10 kcpm



6. Photo of the ratemeter while surveying the local exceedance mentioned above

