

Monthly Progress Report

October 17, 2024

To: Sarah Penfield, Washington State Department of Ecology
From: Rebecca Desrosiers and Nicole Forsberg, Anchor QEA
cc: Kristin Gaines and Cheryl Vezzani, Northwest Alloys, Inc.

Re: Former Reynolds Metals Remediation – Monthly Progress Report, September 2024

Per Section XI of the Consent Decree (CD) issued by the State of Washington Cowlitz County Superior Court on December 14, 2018, Anchor QEA, is providing the following monthly progress report on behalf of Northwest Alloys, Inc. (NWA). This monthly progress report describes the actions taken during the previous month to implement the requirements of the CD. This monthly progress report also summarizes construction progress as outlined in the *Construction Quality Assurance Plan*, Appendix O to the *Final Engineering Design Report, Version 2* (Final EDR; Anchor QEA 2023), approved by the Washington State Department of Ecology (Ecology) on April 14, 2023.

A. List of on-site activities that have taken place during the month

A photograph log of construction activities is included in Attachment A.

- **Installation and maintenance of temporary controls and facilities**
 - Installation and maintenance of temporary erosion and sediment control (TESC) best management practices (BMPs)
 - Envirocon, Inc.,¹ performed site-wide dust suppression control.
 - Observations and monitoring of performance for TESC BMPs
 - Envirocon performed daily stormwater inspections, as documented in their construction stormwater site inspection forms, and maintenance on existing TESCOs.
 - Changes or improvements to temporary access and staging facilities
 - Envirocon received, inspected, and stockpiled import topsoil, drainage layer material, general fill, and 2- to 4-inch crushed rock in the East Staging Area.
 - A total of 105 super sacks of activated alumina were delivered to the East Staging Area.
 - Tsunami Mixing continued mixing and stockpiling reactive backfill in the East Staging Area for use in Site Unit (SU) 3, SU4, and SU5.

¹ Multiple entities were hired by NWA to complete the cleanup. Envirocon is the prime contractor hired by NWA to conduct the remediation work. They have hired several subcontractors who are sometimes mentioned in this report, including Northwest Hydro-Mulchers, Inc.; DeWind One-Pass Trenching; Tsunami Mixing; and Northwest Linings & Geotextile Products, Inc. Anchor QEA is assisting NWA in implementing the *Construction Quality Assurance Plan* (Appendix O to the Final EDR [Anchor QEA 2023]).

- Permeable reactive barrier (PRB) spoils were dried in the West Staging Area and reused for final PRB regrading.
- Temporary facilities
 - No new temporary facilities were installed.
- Compliance with permit requirements for managing remediation water
 - No remediation water was collected or processed during this period.
- Deviations from project design documents
 - There were no deviations from project design documents.
- **Ground improvement**
 - Work was completed in June 2023.
- **Stormwater infrastructure**
 - Envirocon completed asphalt placement over the force main at the Facility 77 connection.
- **Excavation, consolidation, and backfilling**
 - **West Landfill, Site Unit 2, and U-Ditch**
 - Work within the West Landfill and SU2 was completed in September 2023.
 - Final regrading of the U-Ditch was completed in July 2024.
 - Northwest Hydro-Mulchers completed a hydraulic topsoil application over the West Landfill to support better grass growth and reseeding.
 - **Site Unit 8, Site Unit 10, and East Landfill No. 1**
 - Work in SU8 and SU10 was completed in September 2023.
 - A temporary cap of East Landfill No. 1 was completed in September 2023.
 - A final survey of the seven settlement monuments within East Landfill No. 1 was completed by Envirocon in April 2024.
 - Northwest Linings & Geotextile Products completed installation of liner and geotextile components of the East Landfill No. 1 in June 2024.
 - Envirocon completed the East Landfill No. 1 perimeter ditch construction.
 - **Site Units 3 through 5 and East Landfill No. 2**
 - Site Units 3 through 5
 - Envirocon continued placement of reactive backfill in SU3, began placement of reactive backfill in SU4, and completed placement of reactive backfill in SU5.
 - Envirocon began efforts to cap culverts between the SU4 ditches.
 - East Landfill No. 2
 - Envirocon completed final grading of the subgrade and continued grading of the landfill perimeter ditches.

- Northwest Linings & Geotextile Products began installation of liner and geotextile components of the low-permeability cap, including the following:
 - Completed deployment of the geosynthetic clay layer (GCL) over subgrade. Seams were sealed with granular bentonite at 9-inch overlaps as per project specifications.
 - Began deployment of the non-woven geotextile over drainage layer material. Seams were sewn with a minimum 3-inch overlap as per project specifications.
 - Envirocon began placement of material components of the low-permeability cap, including the following:
 - 12 inches of drainage layer material over the GCL
 - 6 inches of general fill over the non-woven geotextile
 - 6 inches of topsoil over general fill
- **Site Unit 9, Site Unit 11, and Diesel Aboveground Storage Tank (AST) Area**
 - Work was completed in October 2023.
- **Cap placement**
 - Refer to the previous West Landfill and East Landfill discussions.
- **Permeable reactive barrier**
 - Spoils were dried in the West Staging Area and reused as general fill in PRB final grading efforts.
 - Envirocon completed the cover over the PRB segments, including placement of the non-woven geotextile and general fill.
 - Envirocon began housekeeping and restoration work within the limits of the PRB, including final grading and removal of supplemental TESC.

B. Detailed description of any deviations from required tasks not otherwise documented in project plans and specs or amendment requests

None.

C. Description of all deviations from the Scope of Work and Schedule (Exhibit C) during the current month and any planned deviations in the upcoming month

None.

D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

None.

E. Summary of all environmental data received by Owner during the past month

None.

F. (At Ecology's request) All raw data including laboratory analyses and an identification of the source of the sample

None.

G. A list of deliverables for the upcoming month if different from the schedule and a list of deliverables submitted during September.

Table 1
Deliverables for Upcoming Month or Currently Pending

Deliverable	Submittal Date
Compliance Monitoring and Contingency Response Plan	Tentative November 1, pending final Ecology comments

Table 2
Deliverables Submitted in September

Deliverable	Submittal Date
None	N/A

H. Reference

Anchor QEA, 2023. *Final Engineering Design Report, Version 2*. Former Reynolds Metals Reduction Plant – Longview. Prepared for Northwest Alloys, Inc. March 2023.

Attachment A

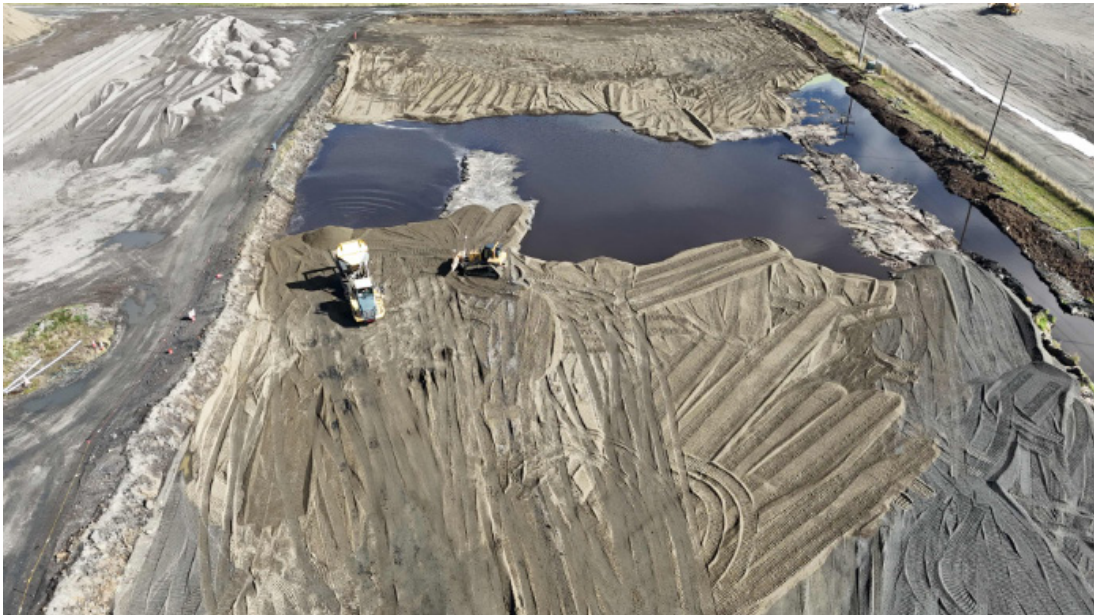
Construction Photographs

Photograph 1
East Staging Area



Mixing reactive backfill

Photograph 2
Site Unit 3



Reactive backfill placement

Photograph 3
Site Unit 4



Reactive backfill placement

Photograph 4
Site Units 4 and 5



Reactive backfill placement

Photograph 5
Facility 77



Asphalt placement over force main alignment

Photograph 6
Permeable Reactive Barrier



Grading and restoration along segment 2 alignment

Photograph 7
East Landfill No. 2



Grading west perimeter ditch

Photograph 8
East Landfill No. 2



GCL deployment along northwestern slope

Photograph 9
East Landfill No. 2



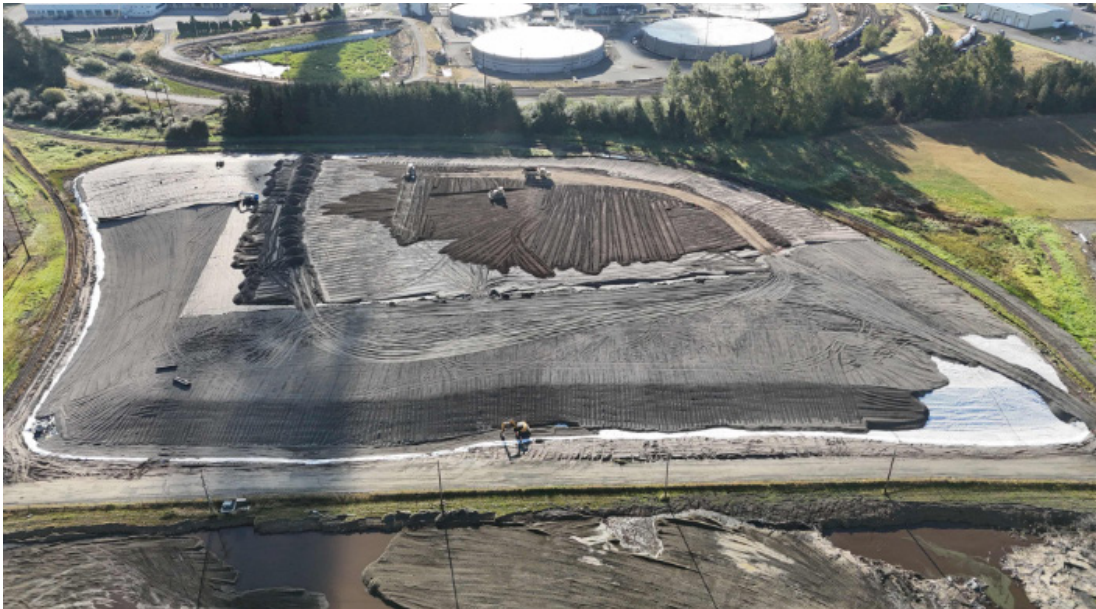
Placement of drainage layer material over GCL

Photograph 10
East Landfill No. 2



Non-woven geotextile deployment and placement of general fill

Photograph 11
East Landfill No. 2



Overall progress of all low-permeability cap components (GCL, drainage layer material, geotextile, general fill, and topsoil)

Photograph 12
East Landfill No. 1



Perimeter ditch expansion

Photograph 13
West Landfill



Hydraulic topsoil application