

# Monthly Progress Report

August 18, 2023

To: Garin Schrieve and Sarah Penfield, Washington State Department of Ecology

From: Nicole Forsberg and Rebecca Desrosiers, Anchor QEA, LLC

cc: Kristin Gaines and Cheryl Vezzani, Northwest Alloys, Inc.

## Re: **Former Reynolds Metals Remediation – Monthly Progress Report, July 2023**

Per Section XI of the Consent Decree (CD) issued by the State of Washington Cowlitz County Superior Court on December 14, 2018, Anchor QEA, LLC, 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.,<sup>1</sup> 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.
  - Changes or improvements to temporary access and staging facilities
    - Select Fill import material was delivered to the East and West Staging Areas where it was inspected and managed by Envirocon.
  - Temporary facilities installed
    - None this period.
  - Installation and maintenance of stormwater control facilities and management of remediation water
    - Remediation water generated during the installation of the East Force Main was collected.

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<sup>1</sup> 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 mentioned in this report, including Keller Management Services, LLC, and Catworks Construction (Catworks). Anchor QEA is assisting NWA in implementing the *Construction Quality Assurance Plan* (Appendix O to the Final EDR [Anchor QEA 2023]).

- Problems encountered while operating temporary water control facilities
  - None.
- Compliance with permit requirements for managing remediation water
  - No problems were encountered.
- Deviations from project design documents
  - There were no deviations from project design documents.
- **Ground improvement**
  - Work was completed in June.
- **Stormwater infrastructure**
  - Catworks Construction (Catworks) continued to fuse 16-inch-diameter high density polyethylene (HDPE) East Force Main piping. Catworks cut asphalt and continued installation of the 20-inch-diameter HDPE East Force Main piping to Facility 77. Installation included gates and tee valves and concrete thrust blocks as per project specifications. Compaction testing of backfill material was performed per specifications and the contractor's quality control plan.
  - Trenching was performed to reroute power along Berth Road, upon which 8-inch-diameter polyvinyl chloride (PVC) conduit was installed underground and then backfilled with Select Fill.
  - Catworks installed a mechanical electrical pump at the East Pump Station.
  - Envirocon constructed mechanical system housing structures for the East Force Main.
  - Envirocon staked out excavation area for wet well installation at the West Pump Station.
  - Envirocon installed a test pit to verify subsurface conditions at the West Pump Station area.
- **Excavation, consolidation, and backfilling**
  - **Site Unit (SU) 10/East Landfill No. 1**
    - Envirocon completed clearing, grubbing, and excavating at SU10 with the material being transported and placed into East Landfill No. 1. SU10 material placed in East Landfill No. 1 was compacted with compaction testing per specifications and the contractor's quality control plan.
    - Select Fill was used as SU10 excavation backfill material and was compacted with compaction testing per specifications and the contractor's quality control plan.
    - Select Fill material was transported from the East Staging Area to East Landfill No. 1 where it was used to construct a berm around the perimeter of the landfill. Berm material was compacted with compaction testing per specifications and the contractor's quality control plan.

- Seven settlement plates were installed at East Landfill No. 1 to monitor potential settlement. Plates were installed above the geotextile fabric and below material transported from SU8 and SU10.
- The former electrical housing structure and concrete slab west of East Landfill No. 1 were demolished.
- **West Landfill**
  - Envirocon received and inspected Select Fill material to be used as backfill in the West Landfill.
  - Activated alumina was mixed with stockpiles of Select Fill material and “rolled” multiple times to ensure adequate mixing. Activated alumina was field-verified to have been evenly incorporated in the mixture.
  - The Select Fill/activated alumina reactive backfill mixture was placed within the SU2 excavation surrounding the West Landfill.
  - Northwest Linings & Geotextile Products, Inc., continued to deploy geotextile clay layer (GCL) membrane above the consolidated waste material in the West Landfill. Granular bentonite was used as a seal along the GCL 9-inch overlap seams as per project specifications.
  - Envirocon placed Drainage Layer Material above the GCL, which was covered by non-woven geotextile fabric.
  - General Fill (sand) was placed above the non-woven geotextile fabric.
- **Cap placement**
  - There were no activities this period.
- **Permeable reactive barrier installation**
  - There were no activities this period.

**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**

During the June 14 site visit attended by Ecology, NWA conveyed that some project elements were lagging due to unforeseen field conditions and that a plan to defer the work at SU3, SU4, SU5, East Landfill No. 2, and the U-Ditch grading until 2024 was in development. All other planned project

work can be completed in 2023. NWA is working with Envirocon to develop a revised construction schedule and will follow up with Ecology in August.

**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**

Future data are anticipated for remediation water sampling and will be included in this section as available.

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

**Table 1**  
**Deliverables for Upcoming Month**

Deliverable	Submittal Date
Compliance Monitoring and Contingency Response Plan	Pending Ecology comments

**Table 2**  
**Deliverables Submitted in July**

Deliverable	Submittal Date
None	N/A

**H. Reference**

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

## Attachment A

### Construction Photographs

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**Photograph 1**  
**Dust Suppression**



Envirocon, Inc., performing dust suppression control along Dike Road (facing southeast).

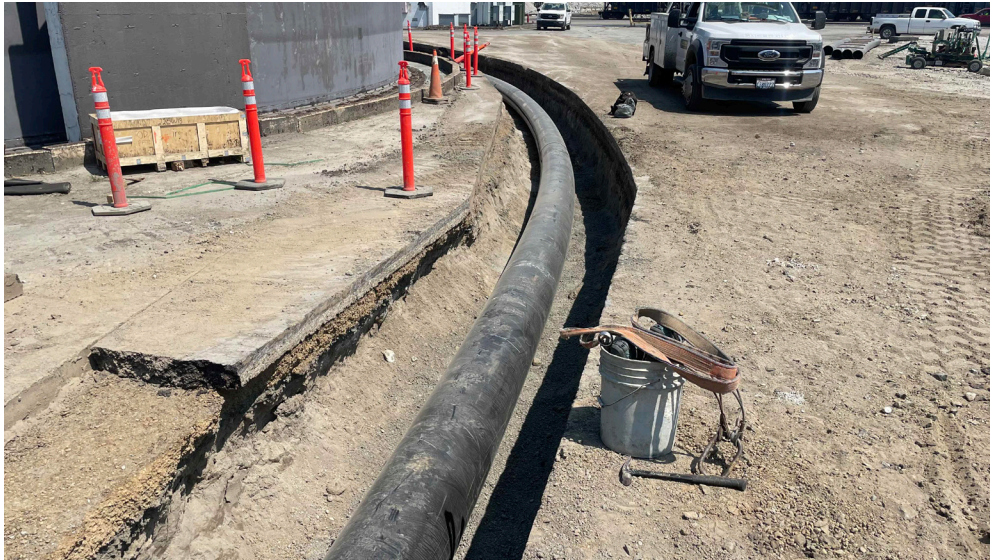
**Photograph 2**  
**Import Material**



Select Fill import material was delivered to the East Staging Area where it was received and managed by Envirocon (facing east).



**Photograph 3**  
**East Force Main Piping**



Envirocon installing East Force Main 16-inch-diameter high-density polyethylene (HDPE) piping near Facility 77.

**Photograph 4**  
**East Force Main Pump**



Catworks Construction installed a mechanical electrical pump at the East Force Main wet well (facing south).



**Photograph 5**  
**SU10 Excavating**



Envirocon excavating material from Site Unit (SU) 10. Generated material was placed in East Landfill No. 1 (facing east).

**Photograph 6**  
**East Landfill No.1**



Envirocon placing material generated from SU10 excavating into East Landfill No. 1 (facing southeast).



**Photograph 7**  
**SU10 Backfilling**



Envirocon backfilling the SU10 excavation with Select Fill (facing southeast).

**Photograph 8**  
**East Landfill No. 1 – Berm Construction**



Envirocon installing Select Fill berm around the perimeter of East Landfill No. 1. Material was placed above geotextile fabric (facing east).

**Photograph 9**  
**East Landfill No. 1 – Berm**



Envirocon installing Select Fill berm around perimeter of East Landfill No. 1. (Facing southwest).

**Photograph 10**  
**East Landfill No. 1 – Berm Compaction Testing**



Professional Service Industries, Inc., performing compaction testing of Select Fill berm material (facing southeast).



**Photograph 11**  
**East Landfill No. 1 – Settlement Plates**



Seven settlement plates were installed in East Landfill No. 1 to monitor for potential settlement (facing east).

**Photograph 12**  
**West Landfill – Reactive Backfill Mixing**



Envirocon mixing the activated alumina and Select Fill materials for use as reactive backfill in West Landfill (facing north).



**Photograph 13**  
**West Landfill – GCL Placement**



Northwest Linings & Geotextile Products, Inc., placing geotextile clay layer (GCL) membrane in West Landfill (facing northeast).

**Photograph 14**  
**West Landfill – GCL Placement**



Granular bentonite used as a seal along the GCL 9-inch overlap seam.



**Photograph 15**  
**SU2 – Select Fill Placement Over Reactive Backfill**



Envirocon placing select fill on top of reactive backfill in SU2 (facing east).