

Completed Remediation Activities

Last Updated: August 27, 2010

<u>Reporting Period:</u>	<u>Completed Activities</u>
August 1, 2010 to August 27, 2010	<ul style="list-style-type: none"> • Completed stabilization and erosion control activities necessary for substantial completion of project. • Completed punch list items from Pre-Final Inspection. • Completed repair of gabion baskets. • Completed placement and anchoring of erosion control material on the Containment (cap) Area (CA).
July 1, 2010 to July 31, 2010	<ul style="list-style-type: none"> • Completed construction of the access road around the CA. • Completed construction of surface drainage features (cap bench outfalls) on the CA. • Completed placement of topsoil on the CA. • Completed construction of the Franko Street extension for Throop Borough. • Completed installation of lateral outfall drains to the anchor trench around the CA.
June 1, 2010 to June 30, 2010	<ul style="list-style-type: none"> • Completed placement of structural fill material on the CA. • Completed placement of cap cover soil on the CA. • Completed placing drainage pipe and backfilling the anchor trench around the CA. • Repaired Check Dam #15. • Stone placed on Franko Street Extension roadway.
May 1, 2010 to May 31, 2010	<ul style="list-style-type: none"> • Removed temporary fencing and barrier at the top of Franko Street. • All three (3) layers of geosynthetics installed over the CA. • Completed excavation of the anchor trench.
April 1, 2010 to April 30, 2010	<ul style="list-style-type: none"> • Removed contaminated sediment from the sediment basin and placed it in the CA; all lead-contaminated soils are now in the CA. • Remove sediment build up from the south swale and temporarily stabilize with jute mat. • Re-establishment of the lower bench on the CA. • Removal of jute mat and pins from CA surface (except

	<p>for the 4:1 slopes) to prepare CA surface for liner installation.</p> <ul style="list-style-type: none"> • Topsoil, seed and place erosion control material (ECM) in the discharge channel. • Install silt fence around topsoil stockpile on-site. • Removed silt fence from outside perimeter fence. • Completed placement of temporary erosion control material in the CA. • Repaired sediment basin outlet structure. • Placed silt fence around structural fill soil stockpile on-site.
March 15, 2010 to March 31, 2010	<ul style="list-style-type: none"> • Repairs to sediment basin outlet structure. • Repairs to perimeter fence. • Removal of silt from basin discharge channel and placement of jute mat in the channel.
January 1, 2010 to March 15, 2010	No construction activities took place at the site during this period.
December 1, 2009 to December 30, 2009	<ul style="list-style-type: none"> • Cell construction to create an area for mixing sediments from the sediment basin with material that is blended with lime kiln dust. • Relocation/Installation of a gate at the Delaware Street entrance. • Layout, clearing, and grubbing of the Franko Street Extension roadway for Throop Borough. • Construction of sump in the sediment basin in order to dewater the basin for sediment removal. • Perimeter fence repairs in preparation for winter shut-down. • Installation of keys and mechanical flanges on gas vents in the Containment Area. • Seeding and stabilization of the north ravine area.
November 1, 2009 to November 30, 2009	<ul style="list-style-type: none"> • Backfill and final grading of Area H and the north ravine area. • Solidification of the 3rd (final) lift in the final section of the Containment Area (the Containment Area was divided into three sections for solidification) was completed. • Installation of additional lighting in the support area parking lot. • Stabilization, including topsoil placement, seeding, and placement of jute mat on Areas A and B. • Decontamination and demolition of the decontamination trailer. • Excavation and backfill of the dewatering area between Areas A and B. • Dewatering and excavation of contaminated sediments from Area B and placement of contaminated sediments in the Containment Area.

	<ul style="list-style-type: none"> • Installation of a silt curtain in the sedimentation basin. • Solidification was completed (all 3 lifts) in the second section of the Containment Area (the Containment Area was divided into three sections for solidification). • Installation of the three gas vents in the Containment Area.
October 1, 2009 to October 31, 2009	<ul style="list-style-type: none"> • Excavation of Area H. • Solidification was completed (all 3 lifts) in the first area of the Containment Area (the Containment Area was divided into three sections for solidification). • Construction of access road around the Containment Area to Area B. • Cleaning of concrete found in excavation Area H, placement of cleaned concrete back in Area H, and removal of rebar from cleaned concrete.
September 1, 2009 to September 30, 2009	<ul style="list-style-type: none"> • Topsoil placement in the Delaware and Grove Street excavation areas. • Placement of silt fence around the western end (bottom toward Lackawanna River) of the Containment Area.
August 1, 2009 to August 31, 2009	<ul style="list-style-type: none"> • Final grading for solidification in the first area of the Containment Area. • Backfill of Grove and Delaware Street excavation areas.
July 1, 2009 to July 31, 2009	<ul style="list-style-type: none"> • Construction of the check dams in the south swale. • Construction of the Containment Area berm to sub-grade. • Excavation of additional areas along Grove Street (including the necessary removal of several evergreen trees) and Delaware Street. • Re-establishment of the perimeter fence along Grove and Delaware Streets.
June 1, 2009 to June 30, 2009	<ul style="list-style-type: none"> • Excavation of Areas B, C, D, V, and the western portion of Area E. • Topsoil removal from Area H. • Construction of an infiltration area in the Containment Area for (rain) water management. • Excavation and backfill of Delaware Street (inside the perimeter fence). • Reconstruction of the rock construction entrance on Delaware Street. • Filled in abandoned man-hole on-site.
May 1, 2009 to May 31, 2009	<ul style="list-style-type: none"> • Survey and backfilling of Area O stained soils area. • Construction and stabilization of the berm around excavation Area H (Diversion Berm #14). • Excavation of Areas A, N, P, Q and R.

	<ul style="list-style-type: none"> • Temporary stabilization of the North Woods area inside the Site. • Stabilization of Areas T and U including topsoil placement, seeding, and erosion control material placement. • Handwork around saved trees in the North Woods. • Relocation of the decontamination trailer. • Excavation of Area O (except for stained soils area). • Stabilization of temporary channel (TC-1) at the Throop Borough borrow source.
April 1, 2009 to April 30, 2009	<ul style="list-style-type: none"> • Construction of haul road to Throop Borough borrow source property. • Backfilling of the Alternate Support Zone. • Relocation of the Support Zone trailers to the Alternate Support Zone and construction of the Alternate Support Zone parking area. • Excavation and confirmatory testing of Areas I, J, K, L, M and the North Woods Facility. • Removal of road plates and stakes from Delaware Street and filling of holes with tar. • Installation of erosion and sedimentation control measures on the haul road to the Throop Borough borrow source property and on the borrow source property itself including installation of a rock construction entrance and installation of silt fence. • Seeding and stabilization of the lower portion of the south swale. • Temporary stabilization of Areas F and G.
March 17, 2009 to March 31, 2009	<ul style="list-style-type: none"> • Installation of water line to new decontamination pad area. • Installation of the road plates on Delaware Street.
January 1, 2009 to March 16, 2009	No construction activities took place at the site during this period.
December 1, 2008 to December 31, 2008	<ul style="list-style-type: none"> • Complete construction of the permanent diversion berm that begins in NW-11 and runs down the perimeter fence into the front parking lot area – NW-21. • Construction of a temporary diversion berm from Area M to Area O in preparation for excavation of Area M. • Excavation and backfill of the eastern portion of Area U and Area T.
November 1, 2008 to November 30, 2008	<ul style="list-style-type: none"> • Removed road plates from Delaware Street. • Backfilling of areas F and G. • Preparation for excavation of the sloped area to the right of the Delaware Street gate (Areas U and T) including berm construction (from the area of the guard trailer to the Containment Area Berm), tree removal,

	<p>and fence removal/temporary fence placement.</p> <ul style="list-style-type: none"> • Importing of temporary cover soil to place over the cap area; the cap area has been covered except for the area where contaminated soils from current excavations will be placed. • Grouting and backfilling of the main mine fissure north of the facility perimeter fence. • Stabilization (seeding and straw placement) of North Woods areas NW-1, NW-2, NW-3, NW-5, NW-6, NW-7, NW-24, W-8, W-12, and M-1. • Placement of erosion control material on the 3:1 slope on the southern (Sulphur Creek) side of the Site. • Installation of chain link fencing around the basin in the North Woods. • Excavation and confirmatory testing of Areas F and G. • Excavation and confirmatory testing of Areas north of the facility perimeter fence line (NW-1, NW-2, NW-3, R-4, NW-5, NW-6, NW-7, NW-8, M-1, NW-9, NW-10, NW-11, NW-12, NW-13, NW-14, NW-24, W-1, NW-15, NW-16, NW-17, NW-20, NW-21, NW-18, NW-19, W-2, W-3, W-4, W-6, W-8, W-9, W-12) in the North Woods. • Construction, final grading, seeding, and placement of erosion control material on the 2:1 and 3:1 slopes on the southern side (Sulphur Creek side) of the Site.
<p>October 1, 2008 to October 31, 2008</p>	<ul style="list-style-type: none"> • Fill in surface cracks that were encountered in the North Woods (Area NW-7A). • Winterized and upgraded primary decontamination pad. • Installation of super silt fence in the North Woods. • Removal of high visibility fencing in the North Woods in areas where temporary permanent fence was installed. • Construction of a retention basin in the North Woods including seeding and placement of erosion control material. • Completed construction of the new sedimentation basin including seeding and placement of erosion control material. • Completed seeding and erosion control material placement in the channels of the North Swale. • Installation of temporary fencing around the M-1 excavation Area in the North Woods. • Excavation of on-site areas F and G pending confirmatory testing. • Stabilization of Area G below the 5' coal seam and the area of the former low hazard soil stockpile with temporary seed. • Excavation and backfill (using material from the low hazard soil stockpile) of Area G in the area below the 5' coal seam. (Note: The purpose of excavating this part

	<p>of Area G was to remove battery casings from the area of the 5' coal seam on-site. This section of Area G will be in the Containment (cap) Area.)</p>
<p>September 1, 2008 to September 30, 2008</p>	<ul style="list-style-type: none"> • Complete construction of diversion berm (F) to prevent stormwater runoff from entering the excavation area (Areas G and F). • Stabilization of slopes in area of new basin. • Construction of haul road to mine fissure area. • Construction of new basin spillway. • Construction of new (clean) haul road for import of clean material (within the Site boundaries but near the Woodlawn Street area of the Site). • Waterline improvement and extension of line to the center of the Site for filling water trucks. • Construction of (3E) diversion berm to the containment (cap) area to keep contaminated stormwater runoff on-site.
<p>August 1, 2008 to August 31, 2008</p>	<ul style="list-style-type: none"> • Relocation of the high hazard soil stockpile into the containment (cap) area. • Dewatering of the old sedimentation basin. • Construction of new sedimentation basin with installation of baffle, placement of topsoil, erosion control matting, and permanent seed. • Segregation of material that was in old storage sheds on-site. • Installation of a speed bump and speed bump signs on Delaware Street. • Excavation of the first contaminated area (Area S) on-site, placement of the contaminated material into the cap area, and backfilling of the excavation area. • Installation of diversion berms to direct water into the new basin and eliminate cross contamination. • Screening of on-site borrow fill material. • Installation/repair of silt soxx (type of erosion control – similar to a net sock filled with mulch) throughout the Site and in the North Woods • Expansion of the track pad area (stone area) at the Delaware Street gate entrance.
<p>July 1, 2008 to July 31, 2008</p>	<ul style="list-style-type: none"> • Installation of high-visibility fencing in the area of Martarano Drive and in the North Woods to secure the work area. • Installation of skimmer in new sedimentation basin. • Clearing of trees in the North Woods area including behind the homes on Martarano Drive (except for a

	<ul style="list-style-type: none"> • small area where the trees will be cleared by hand) • Installation of jersey barriers across the top of Franko Street • Tree removal in the support zone on-site • Construction of diversion berm at the rear of the new basin to direct water from non-contaminated areas into the new basin • Decommissioning of the existing (old) basin • Installation of the outlet structure in the new sedimentation basin • Construction of a secondary decontamination pad area west of the primary decontamination pad area • Removal of manhole and capping of sewer lines on-site • Placement of temporary chain link fencing and orange high visibility fencing at the top of Franko Street and at a second location across the main paths in the North Woods area to secure the construction area and to deter trespassing/dumping • Placement of orange high visibility fencing across the trail head on the Lackawanna River side of the Site to deter trespassing especially during construction activities; signs and caution tape have also been posted in the north woods area for this same purpose • Mine subsidence boring abandonment • Placement of temporary seed on the topsoil soil stockpile • Flagging of trees that will not be cut down in the North Woods area • Construction of screening area for screening of on-site borrow fill material • Lysimeter abandonment • Grubbing of on-site fill borrow area • Hydrant removal and taking down of abandoned electrical poles
<p>June 1, 2008 to June 30, 2008</p>	<ul style="list-style-type: none"> • Clearing of trees on-site • Clearing, grubbing, and removal of topsoil in the area being prepared for the south (Sulphur Creek side of the Site) containment (cap) berm • Installation of temporary chain link security fence along the Lackawanna River side of Site • Installation of jersey (concrete) barriers around permanent wells for protection • Hook up of electricity to Throop Borough's on-site trailer • Well abandonment of wells that will no longer be used • Clearing of on-site fill borrow area • Installation of temporary chain link security fence along Sulphur Creek side of Site

	<ul style="list-style-type: none"> • Installation of extensions onto the existing wells so they will be higher than what the final cap elevation will be at the end of construction • A concrete pad was installed around the newly installed monitoring well (MSB-8R) • The toe of the slope for the containment (cap) area berm was staked out. • Construction of the trench that will anchor the berm of the new sedimentation basin to the existing soil was completed • Completed additional sampling in the Catherino Street right of way to determine final limits of contamination in that area. • Groundwater monitoring was conducted on June 16, 17, and 18, 2008. • Clean out and demolition of on-site drum storage area • Removal of topsoil from new sedimentation basin area • Construction of temporary decontamination pad at bottom of basin haul road to decon vehicles before they enter the new basin and on-site borrow source areas • Construction of a diversion berm at the bottom of the basin haul road to keep stormwater runoff from the contaminated area out of the clean areas • Loading and hauling of tree stumps to a central location for grinding • Relocation of one air monitor to a location inside the fence line on Delaware Street • Clearing and grubbing of trees in new sedimentation basin area • Installation of new monitoring well
<p>Start of construction (May 12, 2008) to May 31, 2008</p>	<ul style="list-style-type: none"> • Work trailers brought in • Hook up utilities and phone lines for new trailers • Camera sanitary/sewer lines on Delaware Street • Camera Site itself before actual construction activities begin. • Upgrading of existing Vehicle Decontamination Pad • Installation of Track Pad (stone area) at Delaware Street entranceway. • Placement of steel plates over the sewer line on Delaware Street
<p>May 5 to May 9, 2008</p>	<p>Off-Site Verification Sampling (Pre-Construction)</p>

