

Marjol Site Remediation Update

View this newsletter and other Marjol documents on the web at www.marjolicleanup.com.

Number 95

November 23, 2009

Ongoing Construction Activities...p. 1

Annual Blood Lead Screening Program...p. 2

Stormwater Management, Air Monitoring, and Off-Site Verification Sampling Information ...p. 2

Stained Soils Investigation...p. 3

Summary of Remaining Construction and Remedial Activities...p. 3

For Questions or Comments, contact:

Lisa Ayers
570.383.9313 office
570.249.0918 cell
570.383.9309 fax
layers@advancedgeoservices.com

Marjol Web Site:
www.marjolicleanup.com

ONGOING CONSTRUCTION ACTIVITIES

Construction of the Final Remedy at the Marjol Battery Site is continuing through the final stages with several notable milestones having recently been reached. Excavation of contaminated fill material has been completed; the contaminated material was placed in the Containment (Cap) Area (CA) and covered with imported, clean (i.e., background levels of lead and other possible contaminants) solidified fill material for protection. With all of the excavated contaminated fill material at the Site having been placed in the CA and the CA having a layer of clean solidified fill material on top of it, this means that none of the surfaces at the site have lead levels above the USEPA/PADEP Final Remedy clean-up standard. Some sediments with lead levels above the clean-up standard remain covered by water in the sedimentation basin. These sediments will be removed when the weather is dry enough. The sediments will be solidified, placed in the Containment Area, and covered with either a clean solidified fill layer or plastic over the winter. In the spring, the sediments will be spread and compacted just before the geosynthetic layers of the cap are installed.

This solidified material forms the bottom layer of the cap (see cap cross section on Page 3) and is about 24 to 27 inches thick. Off-site sources of clean fill were used for solidification of the third lift across the entire CA because there was an insufficient volume of contaminated soil in the last excavation area for the entire thickness of this bottom layer of the cap. Having the top solidified lift created with clean fill also provides greater protection for the contaminated materials over the winter as well as in the extremely unlikely event of erosion of the cover soils and a tear in the geosynthetics in the future.

Backfill of the final excavation area (Area H) is in progress using material from the Throop Borough Borrow Source. Once this activity is complete, most of the northern portion of the site will be at final grade, and permanent stabilization with topsoil, seeding and erosion control measures will occur. The timing of backfill is weather-dependent so all fill operations may not be completed this year.

Temporary stabilization of the CA surface and surrounding areas that are not at final grade will occur to prepare the site for the winter. All exposed, disturbed soils will be protected with either straw, jute matting or temporary erosion control mat depending on the slopes. Seeding of critical areas will also occur. The surface of the CA will be protected with jute matting and/or straw.



View of 4:1 Slope During Solidification Activities—10/19/09

2009 ANNUAL BLOOD LEAD SCREENING PROGRAM

The annual blood lead screening was conducted in three parts. Laboratory Corporation of America (Lab Corp.) from Throop conducted the door-to-door screening and the screening in the Throop Borough Civic Center on July 22, 2009. This year, participants were also able to go directly to Lab Corp. in Throop from July 20th through August 3rd for the blood lead screening.

1) How was participation in the 2009 screening?

Overall, a total of 57 individuals were tested. Of the 57 tested, 16 were children 12 years of age or younger. Both numbers are higher than in previous years, perhaps in response to concern about the remedy implementation. See the table below for a summary of participation over the past few years.

Summary of Participation in Annual Blood Lead Screening Program (2004–2009)

Year	No. of Participants	No. (%) Participants Children 12 yrs. and younger
2004	36	7 (19%)
2005	24	3 (13%)
2006	35	4 (11%)
2007	32	2(6%)
2008	35	1 (3%)
2009	57	16 (28%)

2) What does my blood lead result mean?

The blood lead reports sent by Lab Corp. indicate the following blood lead reference numbers: "In general, for an adult (or older child), a blood lead level under 25 is considered within the reference range. For a child, a blood lead level under 10 is considered within the reference range. For comparison, the OSHA regulatory level for workplace exposure is under 40 µg/dL."

This year, and every year since 1997, there has been no child (aged 12 and under) tested with a result above 5 µg/dL. For the past 8 years, no adult has tested above 10 µg/dL.

3) What was the average blood lead level for those tested this year?

The overall average blood lead level this year was 2 µg/dL. The average blood lead level for the children 12 or younger who were tested was 2 µg/dL. Of the other individuals tested (age 13 and older), none tested above 5 µg/dL.

STORMWATER MANAGEMENT

Stormwater discharge has been occurring in compliance with the NPDES permit following rain events. Pumps that had previously been in the CA to pump water from the CA into Area B have been removed from the CA to allow for placement of the remaining solidified material in the CA. As discussed, the surface of the CA is now covered with imported clean (i.e., background levels of lead) solidified fill and therefore stormwater can flow over the CA, into the swales, and into the sedimentation basin as designed.

AIR MONITORING

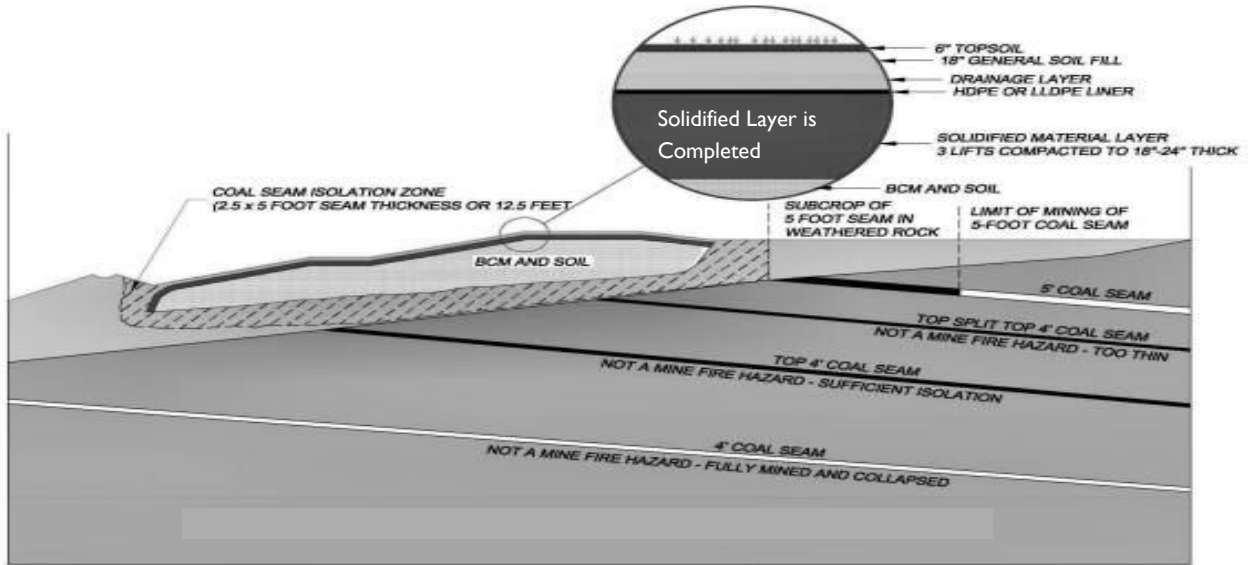
Air monitoring has occurred in accordance with the USEPA/PADEP approved Sampling and Analysis plan with additional analysis of PAM samples (these are dust samples that are collected during working hours or overnight that are sent in for lead analysis) collected at the perimeter of the Site and downwind of activities during screening and solidification activities. All of the PAM sample results have been below the performance standard with most falling below the laboratory detection limit. High volume air sampling (this sampling takes place for 24 hours every six days) has continued to show that the ambient air quality is well below the National Ambient Air Quality Standard. Since all excavation of contaminated fill materials is complete, the real-time dust monitoring has been stopped, but as requested by Throop Borough, PAM samples will continue to be collected during working hours once a week through the end of the current construction season. Additionally, the perimeter high volume air sampling will continue for a period of time. There will also be air monitoring done whenever the sediments are removed from the basin. Even though the air monitoring has changed, the "no visible dust" rule for site activities still applies.

OFF-SITE VERIFICATION SAMPLING

Off-site verification sampling was performed the week of November 16, 2009. This sampling program is designed to confirm that remedial activities did not cause off-site contamination.

Five residential properties in the vicinity of the Marjol Site that had previously been remediated during the residential clean-up were sampled. A total of 20 samples were collected from each property during the pre-construction sampling, and another 20 samples were just collected during post-construction sampling. Typically, half of the pre- and post-construction samples were sent to a lab and analyzed, and the other half were archived for future analysis if required. Analysis results for the post-remediation sampling event have not yet been received from the laboratory. A summary of the pre- and post-construction results will be posted on the website when they are received.

Log onto our web site at www.marjolecleanup.com for the most recent information regarding the Marjol site. *Provide us with your e-mail address and we will notify you whenever the web site is updated.* Construction schedules and a list of completed activities are regularly updated and posted on the Marjol web site. A photo gallery and air monitoring data are also provided on the Marjol web site.



Note: BCM = Battery Casing Material HDPE = high density polyethylene LLDPE= linear low density polyethylene

GENERALIZED CROSS-SECTION WITH CONCEPTUAL REMEDY

STAINED SOILS INVESTIGATION

During excavations in the vicinity of the former office and maintenance building at the site, soils with a strong petroleum odor were encountered. These materials were excavated, sampled and determined to be acceptable to be placed in the CA. On June 26, 2009, a report was submitted to USEPA and PADEP that showed that it was old diesel fuel and presented information on the material that was not able to be removed and remained in the ground. A meeting was held with USEPA, PADEP and Cocciardi & Associates (Throop Borough's Compliance Liaison) to discuss the report on November 3, 2009. Additional information is being provided by Gould to respond to agency comments on the report. Gould expects to receive an additional set of comments from USEPA and PADEP and then the report will be finalized. While the agencies are still reviewing the information, at this time they do not expect to require additional investigation of the stained soils area since the levels remaining in the ground are below the state's cleanup levels.



Solidification using Stehr Machine

Summary of Remaining Construction & Remediation Activities

Activity	Status
Excavation, Confirmatory Sampling, and Backfilling	Completed other than excavation of sediments from the sedimentation basin.
Solidification of the Bottom Layer of the Cap (3 lifts approximately 9-inches each)	Completed
Installation of the Liner and Drainage Layers of the Cap	Not started
Placement of Cap Cover Soil	Not started
Contractor Demobilization	Not started
Maintenance and Monitoring Once Remedy is Completed	Not started

Contacts

Advanced GeoServices (Engineering Consultant for Gould)

Lisa Ayers, Community Relations Representative
Site/Mailing Address: 400 Delaware Street
Office Location: 502 George Street
Throop, PA 18512

<http://www.marjolcleanup.com>

tel 570.383.9313 fax 570.383.9309
cell 570.249.0918
layers@advancedgeoservices.com

United States Environmental Protection Agency (USEPA)

Maureen Essenthier (3WC22)
USEPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

tel 215.814.3416
Essenthier.maureen@epa.gov
<http://www.epa.gov>

Pennsylvania Department of Environmental Protection (PADEP)

Len Zelinka
PADEP
2 Public Square
Wilkes-Barre, PA 18711-0770

tel 570.826.2511
lzelinka@state.pa.us
<http://www.dep.state.pa.us>

Repository Location

Marjol Battery Site Repository

The repository is located at the Throop Borough Municipal Building, 436 Sanderson Street, Throop, PA and is open Monday through Friday 9 am to 4 pm.

Do you want to be added to our lists?

If you would like to be added to the Marjol Battery site newsletter mailing list or the website changes list, please contact Lisa Ayers via e-mail, telephone, or fax or you can submit your address information on our web site at <http://www.marjolcleanup.com>.

Lisa M. Ayers
Marjol Battery Site
400 Delaware Street
Throop, PA 18512