



**MARJOL BATTERY SITE
QUARTERLY PROGRESS REPORT
NO. 14**



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QUARTERLY PROGRESS REPORT
NO. 14**

Prepared For:

**GOULD ELECTRONICS
Eastlake, Ohio**

Prepared By:

**ADVANCED GEOSERVICES
West Chester, Pennsylvania**

**February 15, 2010
Project No. 92-002-230**

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CERTIFICATION STATEMENT

I certify that the information contained in or accompanying Quarterly Progress Report No. 14 dated February 15, 2010 for the Marjol Battery Site in Throop, Pennsylvania is true, accurate and complete.

As to those portions of Quarterly Progress Report No. 14 for which I cannot personally verify their accuracy, I certify under penalty of law that this and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibilities of fines and imprisonment for knowing violations.

SIGNATURE:

Thomas N. Rich

NAME:

Thomas N. Rich

TITLE:

Chief Administrative Officer

DATE:

February 15, 2010



QUARTERLY PROGRESS REPORT NO. 14 MARJOL BATTERY SITE

DATE: February 15, 2010 92-002-230

REPORTING PERIOD: Fourth Quarter 2009 (October 1 to December 31)

This document was prepared to satisfy quarterly progress reporting requirements in the Final Administrative Order on Consent (AOC) U.S. EPA Docket No. RCRA-03-2006-0041 CA effective July 13, 2006 between the United States Environmental Protection Agency (USEPA), Pennsylvania Department of Environmental Protection (PADEP) and Gould Electronics Inc. (Gould).

ACTIONS DURING FOURTH QUARTER 2009

PERMITTING AND DESIGN

The following activities were accomplished during Fourth Quarter 2009:

- On October 7, 2009, a Request for Determination was submitted by SCE to PADEP for solidification activities at the Church Source. The decision that an air permit was not needed was received from PADEP on October 13, 2009. A copy of the decision is provided on the enclosed CD.
- Geosynthetic warranty, winter storage and cold weather seaming procedures were submitted to EPA and PADEP on November 9, 2009.
- On November 11, 2009, jute mat was approved for use in lieu of temporary or permanent ECM.

Table 1 provides the status of permit applications. Table 2 provides a summary of design addenda and permit modifications.

CORRECTIVE MEASURES CONSTRUCTION

The following activities were accomplished during Fourth Quarter 2009:

- CMX Engineering and Dunda Associates were onsite throughout the Fourth Quarter to continue survey control.
 - CMX surveyed the following:
 - Bottom of excavation grades in excavation areas;
 - Top of unconsolidated waste;
 - Top of consolidated waste; and,



- Final grades in completed portions of the Site.
- Dunda surveyed the following:
 - Perimeter stakes around the CA for solidification area location purposes; and,
 - Franko Street Extension grades.
- Excavation activities within the Facility were continued throughout the quarter.
 - Excavation and screening activities in Area H were continued. The material was sized to 2 inches or less with a screener for use during solidification activities. The screened material was transported to placement areas within the CA via tarped haul trucks. Excavation activities in Area H were completed on October 23, 2009.
 - Removal and placement of the oversized material generated during the screening operation in Area H were conducted during the quarter. The material was placed in the western and southern sections of the CA.
 - The washing and placement of the concrete debris excavated in Area H during the third quarter continued. This material was washed using a water truck to remove contaminated surface soil. The washed material was placed on intact rock within Area H in a predetermined area that received a minimum of three feet of fill material as approved by USEPA and PADEP. The cleaning and placement of the concrete was completed on October 13, 2009. The exposed rebar within the concrete was removed with saws prior to backfill activities which began on November 3, 2009.
 - A small portion of the excavated material from Area H was direct hauled to the CA without undergoing screening or solidification methods. This material was placed under the solidified layer in the western portion of the CA. These activities took place from October 21, 2009 through October 23, 2009.
 - The excavation of the contaminated sediments in the western portion of Area B, deposited during management of CA stormwater, was completed on November 11, 2009.
 - The extended excavation along the western portion of Area C was completed on November 13, 2009. The contaminated material was found during routine XRF screening performed during the removal of the filter bag pad used during the dewatering of Area B to Area A.
 - Excavation of contaminated sediments in the Sediment Basin, deposited during CA overflows, began on December 22, 2009.



- A vacuum truck was utilized to remove contaminated sediments. Removal activities began in the southern section of the basin (proximate to the emergency spillway), adjacent to the baffle, and moved northward. Additional water was introduced into the sediment to create a consistency conducive to being vacuumed into the holding tank of the truck.
 - Once full, the vacuum truck transported the sediments to a mixing cell in the CA where the material was combined with imported screened material preblended with Lime Kiln Dust (LKD) for solidification purposes. The stockpile of sediment remained within the mixing cell and was covered with poly and anchored with sandbags for erosion control.
 - Based on the progress and conditions of the operation, the contractor elected to cease the vacuum truck removal and discuss mechanical removal methods for the remaining sediment in the basin. The excavation of the remaining sediment is tentatively scheduled to take place during the first quarter of 2010.
-
- Grade work was conducted Site wide, including within the CA for solidification purposes, with bulldozers and sheepsfoot and smooth drum rollers throughout the quarter.
 - Construction activities in the North Swale were continued throughout the quarter. The grading and installation of the geotextile and gabion mattresses for CD-1 began December 15, 2009. The associated channel, connecting CD-1 and CD-2 was graded and topsoil was applied on November 30, 2009. The channel was seeded and stabilized with permanent erosion control mat following the thirty foot check slot installation on December 2, 2009. Additional work on the gabion mattresses remains to be completed.
 - Permanent stabilization activities continued throughout the fourth quarter. Newly completed excavation areas were backfilled and restored as much as current construction progress would allow. Punchlists of items that needed to be completed and items that needed to be redressed were generated by AGC. As items were completed, updated lists were generated by AGC as well as SCE.
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- Backfill activities resumed as areas were confirmed to meet the performance standard or if additional work was required. The following areas were completed on the dates indicated:
 - Area B, sediment removal, November 12, 2009
 - Area C, extended excavation area, November 17, 2009
 - Area H, November 25, 2009
 - Amended topsoil and permanent seed mix were applied over backfilled and graded areas. In areas where further stabilization was necessary, jute



mat was applied over the seeded areas as well. The following areas were completed on the dates indicated:

- Grove Street, additional material requested by AGC, October 1, 2009
 - Area B, November 19, 2009
 - Former North Woods Haul Road, December 1, 2009
 - Area H, December 4, 2009
 - North Ravine area, December 4, 2009
- Repairs and amendments were made on an as needed basis throughout the quarter.
- Repairs to the erosion rills on the North Woods front slope continued throughout October.
 - Erosion and rutting repairs were performed in the North Woods and above the Emergency Spillway on October 7 and 8, 2009.
 - Overseeding was conducted site-wide throughout the quarter including at the North Woods basin area, the North Woods Front Slope and permanent diversion berm, and the temporary/permanent diversion berm at the Sediment basin.
 - Fertilizer and lime amendments were applied at the North Woods front slope on October 7, 2009.
- AGC developed a temporary stabilization and winterization plan that the contractor began to implement starting on November 11, 2009. Examples of completed tasks are listed below.
 - Jute mat was installed over steeper slopes in the CA to minimize erosion of solidified material. Installation began on November 11, 2009 and continued throughout the quarter as weather and site conditions allowed.
 - A silt curtain was installed in the northern section of the sediment basin to prevent the migration of contaminated sediment to uncontaminated areas of the basin. The curtain was installed on November 11, 2009.
 - An additional layer of structural fill was placed over the western, southern, and southeastern sections of the CA berm. The structural fill on the southern and southeastern sections was seeded and jute mat was installed to further stabilize those areas. Placement was completed on November 12, 2009.
 - Silt fence was installed at the down slope side of the cap cover stockpile located east of the CA. Installation was completed on November 13, 2009.



- Reinforced silt fence at the down slope sides of the CA was completed and anchor stakes were installed to prevent overturning. Installation was completed on November 19, 2009.
 - Jute mat was installed over the incomplete section of the South Swale to prevent erosion into the completed section of the swale. Installation was completed on December 4, 2009.
 - A permanent, operational gate was installed at the Delaware Street entrance to enable the security guards to secure the site during non-working hours. Installation was completed on December 15, 2009.
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- SCE and Drum continued construction of the permanent access road throughout the quarter beginning on November 25, 2009. The northeast extension of the road was completed. Additional work on the permanent access road remains to be completed at the east and southeast sections.
 - Import of structural fill from the Throop Borough borrow source for use as backfill resumed on November 4, 2009, and continued periodically throughout the quarter. SCE continued sizing the structural fill material at the borrow source as needed. Final closeout activities at the Throop Borough borrow source were completed on December 4, 2009. Remaining fill material needed for construction and stabilization purposes will be imported from other sources (Church).
 - SCE continued stormwater management activities to control the standing water accumulating in the CA until a clean layer of solidified material was complete. When water levels reached a critical point, the excess water was pumped to Area B for additional capacity. On November 13, 2009, all contaminated material within the CA was covered by at least a 9-inch thick layer of solidified clean material, negating the need for management of CA stormwater.
 - The contractor made necessary repairs to erosion and sediment control measures as needed and directed by AGC following storm events. The majority of repairs occurred along the southern and southeastern sections of the CA, including the dogleg. The contractor elected to install additional controls to prevent future damage. The silt fences were reinforced with anchor stakes, several rock check dams were installed, and sediment was removed from the South Swale.
 - Dewatering of the sediment basin through the skimmer and outlet structure continued as needed. Sampling of the discharge per the Sampling and Analysis Plan was conducted.
 - SCE imported cap cover soil from the Church borrow source throughout the end of October and resumed again on December 23, 2009. Material was transported to a stockpile located east of the CA. A secondary stockpile was created in December west of Area H.
 - SCE imported structural fill material from the Church borrow source December 23, 2009 through December 30, 2009. The material was transported to a stockpile located south of the CA adjacent to the dogleg.
 - Solidification activities continued throughout the fourth quarter until the solidified layer was completed on November 23, 2009.



- Prior to the start of solidification activities in each section, the existing elevations and slopes were reviewed by AGC to ensure minimum (3%) and maximum (25%) slopes were met and the subgrade was a minimum of two feet below the final design grades.
- The Stehr machine (a mixing and placement machine) was used to blend LKD with screened contaminated material from Area H. Use of the Stehr continued throughout the fourth quarter.
- Excavation of saturated material and sediment along the southern and western interior CA berm was necessary prior to the start of solidification in these areas. Oversized material generated during the screening operation in Area H was used to fill in the area created by the removal of saturated material.
- Screened, contaminated material from Area H was used for the solidified layer until excavation was completed. When contaminated material and on-site cut material were exhausted, SCE used screened, imported clean material from the Church borrow source to complete the remaining lifts of the solidified layer. The imported material was blended with LKD at the borrow source to generate a mixture containing approximately 20% LKD. Once onsite, the material was tracked into place, wetted with a water truck, and rolled according to specification requirements. The Stehr machine was not used for mixing and placement of Church material. The import of solidified clean material from the Church source began on October 2, 2009 and continued until the completion date on November 23, 2009.
- Due to steepness of grade and operational limitations of the Stehr machine, the following actions were taken:
 - The entire solidified layer, three lifts, on the 4:1 slope in the southern portion of the CA was completed with imported LKD-blended clean material. The solidification activities on the 4:1 slope occurred from October 8, 2009 through October 22, 2009.
 - A small section in the southeast corner of the CA was solidified using mechanical methods. Previously placed screened clean material from on-site cuts was blended with imported LKD-blended material via an excavator, wetted with a water truck, and compacted with sheepsfoot and smooth drum rollers according to specification requirements. This work was conducted on October 20, 2009, under the supervision of AGC and USACE.
- On several occasions throughout the quarter, on-site areas required dewatering in order to facilitate needed work and/or sampling. The dewatered areas are summarized as follows:



– Sediment Basin

- October 13, 2009: Water was pumped from the sediment basin to Area B to allow for sediment sampling within the basin.
- December 14-17, 2009: Water was pumped from the sediment basin to Areas A and B through a filter bag to facilitate removal of contaminated sediment within the basin. The filter bag was located in the western section of Area C along the boundary of Area A. Due to grading, water flowed to both Area A and Area B.

– Area B

- November 9 and 10, 2009: Water was pumped from Area B to Area A through a filter bag to facilitate removal of contaminated sediments. These activities were approved by USEPA and PADEP on October 28, 2009.
 - The filter bag was located in the western section along the boundary of Area A. Upon removal of the pad on November 12, 2009, contamination was identified and subsequently removed as stated previously. The removal area was treated as a separate excavation and confirmatory sampling was conducted (EXCW2).
- The decontamination trailer was decommissioned and demolished on-site on November 17 and 18, 2009. The contents were removed and the trailer was crushed and placed in a roll-off container for off-site disposal. A water truck was present to ensure proper saturation during the demolition activities. Disposable Tyvek suits and booties will be used as personal protective equipment during future work in contaminated areas (i.e., the removal of contaminated sediment from the basin).
 - Installation of gas vents located within the CA was conducted on November 3 and 4, 2009. The locations were excavated, lined with geotextile, and filled with pea gravel to the design depth. The perforated pipe was installed and the remaining excavation was backfilled with cap cover soil. Temporary end caps were then installed over the opening of the pipe to prevent water from entering. The installation of the flanges, T-joint, and placement of the bentonite was completed at GV-1 and GV-2 on December 3, 2009. GV-3 remains to be completed.
 - Construction of the Franko Street extension began during the fourth quarter. Survey and layout of the road and associated water management features was conducted on December 7 and 8, 2009 by Dunda Associates. Clearing of scrub trees and brush was completed on December 10, 2009. Grading and excavation of the swales began on December 14, 2009 and continued throughout the remainder of the quarter as weather and conditions allowed. Additional work remains to be completed.
 - Covering of geosynthetic materials for winter storage was completed on December 11, 2009.



- On November 18 2009, 4.08 tons of municipal waste was transported to Keystone Sanitary Landfill for disposal. The material was non-contaminated construction debris and demolition debris from the decon trailer. On November 19, 2009, 3.69 tons of scrap metal was transported to Fiegleman's Recycling Center for recycling. All material was decontaminated prior to shipment. Weight tickets are provided on the enclosed CD.
- SCE conducted personal air monitoring during the limited activities in lead contaminated areas in October. These samples were archived and were not submitted for lab analysis, as historical lab data for the Site indicates that the work area has been consistently below the OSHA action level (30 ug/m³) and permissible exposure limit (50 ug/m³) for lead, even during worst-case scenario soil remediation activities. No samples were collected in November or December 2009 as activities were not conducted in lead contaminated areas.
- As excavations were complete, radiation monitoring was discontinued on October 29, 2009.
- No decon water sampling was conducted during the quarter as all decon water was stored within the on-site tank.

Items provided on the web portal including construction schedules, daily QC reports, meeting minutes, and approved submittals are provided on the enclosed CD.

QUALITY ASSURANCE

The following activities were accomplished during Fourth Quarter 2009:

- AGC personnel continued to monitor construction activities throughout the quarter. Daily Quality Assurance (QA) reports have been generated and are provided on the enclosed CD.
- Daily erosion and sediment control inspections onsite were continued throughout the quarter. Weekly erosion and sediment control inspections at the Throop Borough borrow source were also continued throughout the quarter.
- The Site operations meetings were continued as needed or when requested throughout the quarter. AGC attended each meeting. An open invitation to regulatory agencies, Cocciardi, and Throop Council members was extended.
- AGC performed XRF screenings to aid in the direction of excavation in Area H as well as extended excavations in Area A, Area C, and the sediment basin. AGC personnel conducted screenings concurrently with excavation activities as requested throughout the quarter.
- AGC performed confirmation sampling for lead in excavation areas. Sampling was conducted in accordance with the Sampling and Analysis Plan (SAP). Excavation areas are summarized in Table 4. The results were submitted to the USEPA for final review and approval. All confirmatory sampling that was submitted during the fourth quarter was approved for backfill by USEPA. Results are provided on the enclosed CD.



- No PCB/PAH confirmation sampling was conducted in excavation areas this quarter.
- XRF screening was conducted in Area B and the basin due to the CA overflows that occurred in the second and third quarters. Area A was also screened following dewatering activities that were conducted from Area B to Area A.
 - The sediments in Area B were screened on October 5, 2009. The sediments in the western portion of Area B immediately surrounding the filter bag exhibited lead concentrations above the Performance Standard of 500 mg/kg. SCE was notified and the area was designated as an excavation area. Confirmatory sampling (EXBW2) by XRF was conducted following excavation and results are provided on the enclosed CD.
 - The sediment in the basin was screened on October 15, 20, and 23, 2008. The basin was broken up into three sections to better define the areas of contamination. Results were submitted to EPA and PADEP on October 22, 2009, and are provided on the enclosed CD. Sediment removal is proposed for the east portion of the basin, as approved by EPA on October 22, 2009.
 - Basin 01 was the southern section in front of the baffle extending from the outlet structure to midway between CD-7 and CD-1. Based on the ten-point composite sample taken, the sediment in this area is contaminated at a concentration above the performance standard.
 - Basin 02 was the northern section in front of the baffle extending from midway between CD-7 and CD-15 to point at which the baffle makes a southwestern turn. Based on the ten-point composite sample taken, the sediment in this area is contaminated at a concentration above the performance standard.
 - Basin 03 was the remaining section of the basin that is located behind (west) the baffle. Based on the ten-point composite sample taken, the sediment in this area is not contaminated at a concentration above the performance standard.
 - Sediment samples were also collected from within the gabion mattresses of CD-7 and CD-15. The sediment collected from CD-15 exhibited lead concentrations above the performance standard and will be included in the sediment removal activities. The sediment collected from CD-7 did not exhibit lead concentrations above the performance standard. XRF results for CD-7 are provided on the enclosed CD.
 - On October 23, 2009, probes were conducted along the contaminated areas of the basin to investigate the depth of material that will need to be removed. Based on the probes, approximately one to two feet of sediment is present over the removal area.



- By the date of this report, AGC had contacted LCCD on January 4, 2010 regarding the plan for sediment removal at the basin. LCCD indicated these activities are not an NPDES concern as the basin is functioning as designed and as part of the normal sediment retention at the Site.

- Area A was screened on November 12, 2009 following the completion of dewatering activities and the sediment removal from Area B. The samples did not exhibit concentrations above the performance standard. Results are provided on the enclosed CD and were provided to ACOE, USEPA and PADEP on November 19, 2009.
- XRF screening was also conducted at Area C following removal of the silt bag. Areas greater than 500 mg/kg total lead were removed. Confirmatory sample results (EX-CW2) are provided on the enclosed CD.

- On October 1, 2009, additional USEPA and PADEP comments on the Revised Stained Soils Investigation Report were received. On November 3, 2009, USEPA, PADEP, AGC, Gannett Fleming and Coccardi met to discuss proposed responses to USEPA and PADEP comments. Supplemental information was provided on November 5 and 16, 2009 and revised text for the report was sent to the agencies on December 11, 2009. Final agency comments were received on December 23, 2009.
- AGC conducted turbidity readings within the sediment basin prior to the start of dewatering the basin on October 26, 2009. All results were below the performance standard of 250 NTUs.
- Dewatering of the basin was initiated by AGC on October 26, 2009 and October 28, 2009. The skimmer was left in the dewatering position for the remainder of the quarter and will remain in the dewatering position for the rest of construction.
- AGC reviewed the existing grades and slopes of the CA for subgrade approval prior to the start of solidification activities on the dates and in the sections of the CA indicated below. Slopes and elevations were checked against the design elevations using AGTEK readings provided by Drum. AGC created sketches illustrating compliance with design requirements, which are provided on the enclosed CD.

- Southern section of the CA along the 4:1 slope was reviewed on October 7, 2009.
 - Portions of the toe of slope required regrading to meet the design requirements.
 - On October 8, 2009, grades were resurveyed with AGTEK equipment after grading activities were completed and was approved as meeting the design requirements.



- Southern section of the CA along the 4:1 slope was reviewed on October 19, 2009. All elevations met the design requirements and verbal approval to proceed with the solidified layer was provided.
- Western section of the CA was reviewed on November 2, 2009.
 - Portions of this section required regrading to meet the design requirements. Areas were also identified that required excavation of saturated material along the interior CA berm.
 - On November 3, 2009, grades were resurveyed with AGTEK equipment after grading and excavation activities were completed. The western section was approved for solidification.
- Northwestern slope of the CA was reviewed on November 13, 2009 to ensure that all contaminated sediments removed from Area B were below the non-contaminated solidified layer. Survey indicated that the additional material did not affect the maximum slope requirements and solidification could proceed.
 - On November 23, 2009, unconfined compressive strength testing was completed at the three lifts of solidified material at the CA. A hand-held penetrometer was used to test the material. A grid system was created that separated the CA into areas of 10,000 square foot sections, each with individual sample identifications. Due to the overall shape of the CA, several areas within the grid exceeded 10,000 square feet. A minimum of four tests and up to six tests were performed in each 10,000 square foot area. All official testing results exceeded the minimum strength requirement of 25 psi and are provided on the enclosed CD.
 - On November 2, 2009, ACOE and PADEP augered through the solidified layer and confirmed the design depth was achieved at that location.
 - AGC responded to questions from USEPA, ACOE, PADEP and Gannett Fleming regarding the installed gas vent locations. On November 19, 2009, ACOE, PADEP and Gannett Fleming approved the installed gas vent locations.
 - On December 30, 2009, AGC began weekly inspections of the geosynthetics stockpiles. Inspection results are provided in the E&S Checklist in the QA reports.

Items provided on the web portal including daily QA reports and photographs are provided on the attached CD.

MONITORING

The following activities were accomplished during Fourth Quarter 2009:

- Weekly air monitoring continued at the Site, and the results show that the ambient air lead levels are well below the National Ambient Air Quality Standard of 0.15 $\mu\text{g}/\text{m}^3$. The Fourth Quarter 2009 Ambient Air Monitoring Report is provided on



the enclosed CD. PADEP continues to periodically split samples with AGC at high volume sampler locations #1 and #4. The results from the August 28, 2009 and October 10, 2009 PADEP air sampling are provided on the enclosed CD.

- On December 22, 2009, AGC relocated HV-4 to Sanderson Street for the winter season out of safety concerns for collection of samples and maintenance of equipment. The collocated PADEP high volume air sampler was relocated to the same location on December 23, 2009.
- The perimeter air monitoring schedule for 2010 was submitted on December 18, 2009.
- Real-time aerosol (dust) monitoring continued during working and non-working hours when contaminated materials were being handled. Real-time air monitoring was conducted at three to six locations per day depending on Site activities. Hourly average readings were collected. As approved by EPA, real-time monitoring at Area H was discontinued on October 29, 2009. On November 13, 2009, real-time air monitoring ceased. Real-time dust monitoring resumed on December 22, 2009 to monitor the removal of contaminated sediments from the basin. Monitoring was again suspended on December 22, 2009, when removal actions were postponed and the contaminated stockpile was covered. A summary of real-time monitoring is provided in Table 5 and on the enclosed CD. The following exceedances occurred during working and non-working hour real-time monitoring:

- October 26, 2009, working hour, AM-5. The collocated personal air monitor (PAM) was submitted to the laboratory for analysis and results were below the detection limit.
- November 6 to 9, 2009, non-working hour, AM-5. The collocated high-volume air monitor sample was submitted to the laboratory for analysis and the result was $0.003 \mu\text{g}/\text{m}^3$.
- November 9, 2009, working hour, AM-5. The collocated PAM was submitted to the laboratory for analysis and results were below the detection limit.
- November 9, 2009, non-working hour, AM-5 and AM-6. Collocated PAMs were submitted to the laboratory for analysis and results were below the detection limit.
- November 10, 2009, working hour, AM-2, AM-5 and AM-6. Collocated PAMs were submitted to the laboratory for analysis and results were below the detection limit.

All collocated PAM results and high-volume perimeter air samples were below $0.15 \mu\text{g}/\text{m}^3$ lead, except as noted below.

- Personal air monitors (PAMs) were collocated with real-time dust monitors or placed on perimeter fence lines on a daily basis downwind of excavation and containment areas, except as noted below. A summary of collocated PAM air monitoring and laboratory data are provided in Table 5 and on the enclosed CD.



All PAMs were less than $0.15 \mu\text{g}/\text{m}^3$, with the exception of 100709-WH-AM3 ($0.193 \mu\text{g}/\text{m}^3$ total lead).

- Samples were submitted to the lab for analysis if a total suspended particulate hourly recording exceeded the Action Level, if a Dust Track Monitor malfunctioned, if excavation activities were conducted in a new location/contaminated material, or if requested by USEPA. Remaining samples were archived with all information necessary to calculate an air lead level if the sample was analyzed.
 - Samples located downwind of Area H excavation and screening, the downwind perimeter, and at the primary Sulphur Creek location were analyzed on a daily basis. If the result from the primary Sulphur Creek location was at or above $0.15 \mu\text{g}/\text{m}^3$, the secondary Sulphur Creek sample was sent to the laboratory for analysis. All other samples were archived.
 - As approved by USEPA, the collocated PAM downwind of Area H was discontinued on October 29, 2009.
 - Daily PAMs were discontinued throughout the Site on November 13, 2009. In response to Cocciardi's request for additional sampling, Gould agreed to conduct weekly PAM sampling at Delaware Street and Sulphur Creek until the end of the 2009 construction season on working days offset from perimeter high-volume air sampling. PAMs were not collected if work did not occur. The weekly PAM sampling was suspended on December 11, 2009 due to the Site being ice and snow covered and until work in contaminated areas resumed.
 - Sampling resumed on December 22, 2009 in order to monitor the removal of contaminated sediments from the basin. Based on no Action Level exceedances recorded by the dust monitors, the samples were archived. Sampling was again suspended when removal actions were postponed and the contaminated sediment stockpile was covered.
- On October 23, 2009, Advanced GeoServices personnel collected Fourth Quarter 2009 sediment samples as part of the Final (100%) Design SAP. The sampling consisted of one composite sample of the original locations 3, 6, 7, and 8. The sample result of 38.8 mg/kg was less than the calculated 95th upper confidence limit of the mean (52 mg/kg) for historic sample results at the mouth of Sulphur Creek. Surface water discharges from the site occurred this quarter as discussed in the Discharge Monitoring Reports. The Fourth Quarter 2009 Sediment Sampling Report is provided on the enclosed CD.
 - Discharge occurred from the Proposed Sediment Basin during Fourth Quarter 2009 as discussed in the Discharge Monitoring Reports (DMR) for October, November and December 2009. Off-site discharges that were compliant with NPDES Permit No. PAI023508001 occurred on October 26 through 30, November 20 and 23 and December 3, 4, 9, 14 and 15, 2009. The DMRs are included in the Fourth Quarter 2009 Sediment Sampling Report.



- On October 14, 2009, USEPA and AGC agreed to conduct the post-excavation Off-Site Verification (OSV) sampling once all waste was covered. Access from the current owner of OSV Location 2 was received on October 12, 2009. Post-excavation OSV sampling was conducted from November 16 through 18, 2009. Results are provided on the enclosed CD. Evaluation of pre-construction versus post-construction data determined that there was not an increase in soil lead of more than 100 mg/kg at a 95% confidence level.
- Precipitation for October, November and December 2009 was 4.27", 1.02", and 2.38" respectively, mostly in the form of rain.
- No 10-year storms (3.68 inches of rainfall within a 24-hour period) occurred during the third quarter.
- Site weather data was placed on the web portal. Battery back-up power for the weather station failed on December 12, 2009, and NRCC weather data was obtained for December 12 to 31, 2009. The battery back-up has since been repaired. Weather data is provided on the enclosed CD.

SITE MAINTENANCE

The following activities were accomplished during Fourth Quarter 2009:

- SCE was off-site during Fourth Quarter 2009 to cut and trim grass at residential areas adjacent to the Site and slope near the main entrance.
- A daily perimeter inspection was conducted by AGC and SCE on days when work activities are conducted.
- From October 1 to 9, 2009, Securitas Security (f/k/a Burns Security) continued to conduct a walking inspection of the Throop Borough borrow area, haul road, and North Woods Monday through Saturday evenings and Sunday mornings and evenings. These inspections were discontinued beginning October 9, 2009 due to hunting season.
- During the weekend of November 14 to 15, 2009, a break-in occurred at the support zone. Items stolen include a laptop, log books, and camera. Locks were changed on November 20, 2009. Lighting was added to utility poles and gaps in perimeter fencing were addressed. Given the reduced activities at the Site, the guard service will be present during daylight hours during construction, and from 6 am to 6 pm during the winter shutdown. USEPA and PADEP approved of these activities.

COMMUNITY RELATIONS

The following activities were accomplished during Fourth Quarter 2009:

1. Throughout the Fourth Quarter 2009, Gould's web site, <http://www.marjolcleanup.com>, for the Marjol Battery Site was updated regularly with air monitoring data, photos, the construction schedule, turbidity data, and other site information. A notification was sent



to those individuals who signed up for web-site update notices each time the web site was updated.

2. Throop Borough, Cocciardi & Associates (Cocciardi), USEPA, and PADEP were kept informed regarding the status of work activities at the Marjol Site throughout the Fourth Quarter 2009. Summaries were e-mailed to Cocciardi, USEPA, and PADEP regarding the real-time air monitoring, PAM sample results, and the schedule for the next day's activities on a daily basis.
3. Throughout the Fourth Quarter 2009, Throop Borough and Cocciardi were notified of action level exceedances on the dust monitors and incidents where the air monitors did not run properly.
4. On October 5, 2009, AGC notified Throop Borough and near-by residents of an increase in truck traffic due to the import of solidification material to the Site.
5. On October 12, 2009, AGC provided Throop Borough Council with a summary of activities at the Site. AGC also attended Throop Borough's Special Monthly Work Session and Council Meeting that evening to provide an update on activities at the Marjol site. (See notes attached.)
6. On October 16, 2009, AGC notified Throop Borough and Cocciardi of the discussion that took place between Gould, AGC, SCE, and Chesapeake regarding the pros and cons of proceeding with geosynthetic installation in 2009.
7. On October 21, 2009, AGC contacted the Throop Borough Streets Commissioner regarding putting salt down on Delaware Street. The Borough Streets Commissioner requested documentation that any salt used on Borough Streets is not contaminated.
8. On Monday, October 26, 2009, AGC notified Throop Borough and Cocciardi of a breach of the interior erosion control measure that occurred on October 25, 2009 following a heavy rain event.
9. On October 26, 2009, AGC provided Throop Borough Council with a summary of activities at the Site for its evening work session and meeting. AGC did not attend the work session/meeting that evening.
10. On October 28, 2009, AGC contacted Throop Borough and Cocciardi to provide an update on stormwater management at the Site following the day's heavy rain event; all structures were functioning as designed.
11. On November 2, 2009, AGC sent flyers to residents living on Martarano Drive and Bush Streets to inform them that the use of fill material from Throop Borough's 48-acre property would be resuming. Notification was also posted on the web site and the Throop Borough Council President was contacted.



12. On November 5, 2009, AGC attended Throop Borough's Special Work Session and Council Meeting with Throop Borough's Engineer regarding Throop Borough's 48-acre property and other Borough construction projects. (See notes attached.)
13. On November 9, 2009, AGC provided Throop Borough Council with a summary of activities at the Site. AGC also attended Throop Borough's Special Monthly Work Session and Council Meeting that evening. (See notes attached.)
14. On November 12, 2009, AGC met with the Throop Borough Council to discuss final elevations at the Throop Borough Borrow Source property.
15. On November 12, 2009, AGC provided Cocciardi with a copy of the stained soils cross section drawing.
16. On November 13, 2009, AGC contacted the owners of the Off-Site Verification (OSV) Sampling properties to notify them that the second phase of the OSV sampling would take place at their properties the week of November 16, 2009.
17. On November 13, 2009, AGC notified Throop Borough and Cocciardi of additional excavation work in the vicinity of the dewatering pad located between excavation Areas A and B.
18. On November 16, 2009, AGC notified Throop Borough that Dust Trak monitoring and daily PAM sampling was discontinued as of the afternoon of Friday, November 13, 2009 and that in response to a request by Cocciardi for continued PAM sampling, Gould agreed to perform PAM sampling once a week through the end of the 2009 construction season.
19. On November 16, 2009, as requested, AGC provided PADOH with a summary of the annual blood screening data from the past five years.
20. On November 16, 2009, AGC notified the Throop Police Department and the Throop Borough Council President of a break-in that occurred over the weekend at the AGC support trailer.
21. On November 17, 2009, in response to the break-in that occurred the weekend of November 14/15, 2009, AGC installed new locks on all perimeter gates. AGC provided keys for the new locks to Throop Borough's police department, fire departments, fire chiefs, emergency management coordinator and chief clerk.
22. On November 17, 2009, as requested, AGC provided Cocciardi with comparison compressive strength data for material solidified with the Stehr machine versus imported solidified material.



23. On November 17, 2009, AGC notified the Throop Borough Council president of Gould's plans to decrease guard service at the Marjol Site to daylight hours.
24. On November 23, 2009, AGC attended Throop Borough's Public Hearing and Special Meeting for the Purpose of Council to Consider Borrowing Funds from the Borough's Sunny Day Fund Account. (See notes attached.)
25. On November 23, 2009, AGC provided Throop Borough Council with a summary of activities at the Site. AGC also attended Throop Borough's Monthly Work Session and Council Meeting that evening. (See notes attached.)
26. Newsletter #95 was mailed out on November 23, 2009. The newsletter included information on ongoing construction activities, the Annual Blood Lead Screening Program, Stormwater Management, Air Monitoring, Off-Site Verification Sampling Information, and a Summary of Remaining Construction and Remedial Activities.
27. On November 25, 2009, Throop Borough removed its trailer from Gould's property at 806 Woodlawn Street.
28. On December 10, 2009, AGC met with representatives from Throop Borough to review the Throop Borough borrow source property and the Franko Street extension.
29. On December 10 and 11, 2009, copies of all Design Addenda and updated design drawings were placed in the Marjol Repository located at the Throop Borough Municipal Building in response to a request from a resident on Dunmore Street to review the information.
30. On December 14, 2009, AGC met with the Throop Borough Council president to discuss access routes to Throop Borough's 48-acre property.
31. On December 14, 2009, AGC provided Throop Borough Council with a summary of activities at the Site. AGC also attended Throop Borough's Special Monthly Work Session and Council Meeting that evening to provide an update on activities at the Marjol site. (See notes attached.)
32. On December 16, 2009, AGC contacted Throop Borough and Cocciardi regarding preliminary data from the second phase of the Off-Site Verification Sampling that was conducted in November 2009.
33. On December 17, 2009, AGC was contacted by Throop Borough about a complaint from one of Throop Borough's residents regarding burning (of wooden pallets) at the Site. AGC contacted SCE and the fire was immediately extinguished.



34. On December 29, 2009, AGC provided Throop Borough Council with a summary of activities at the Site. AGC also attended Throop Borough's Monthly Work Session and Council Meeting that evening. (See notes attached.)

SCHEDULE AND PERCENT COMPLETE

The attached CMI Schedule (Table 3) has been updated with actual dates on which the tasks were accomplished and corresponding revisions to the projected completion dates. Based on the Revised Cost Estimate through December 31, 2009, the CMI is approximately 75% complete.

PROBLEMS ENCOUNTERED

No problems were encountered during Fourth Quarter 2009.

PERSONNEL CHANGES

No personnel changes occurred during Fourth Quarter 2009.

ACTIONS PLANNED FOR FIRST QUARTER 2010

PERMITTING AND DESIGN

The following activities are planned for First Quarter 2010:

- Request renewal of Throop Borough fence, building and trailer permits.

CORRECTIVE MEASURES CONSTRUCTION

The following activities are planned for First Quarter 2010:

- SCE will continue to conduct weekly perimeter inspections throughout the quarter.
- SCE will continue to conduct weekly geosynthetics stockpile inspections.
- SCE will continue Site maintenance including snow removal as needed throughout the quarter.
- SCE will provide guard service during daylight hours during the winter shut down.
- SCE plans to continue importing structural fill and cap cover soil as weather permits throughout the first quarter.
- SCE plans to resume and complete the removal of contaminated sediment from the basin as soon as weather permits. The removed material will be solidified and stockpiled within the CA until the next construction season.
- SCE will re-mobilize to the Site at the end of the first quarter.



- Presently, all other major construction activities are not scheduled to start until the beginning of the second quarter.

Completion of these activities is weather dependent.

QUALITY ASSURANCE

The following activities are planned for First Quarter 2010:

- Submit the Revised Stained Soils Investigation Report.
- Continue observation of construction activities, if any, and photo-documentation.
- Conduct weekly erosion and sediment control inspections at the facility and the Throop Borough borrow facility, in conjunction with SCE inspections.
- Complete confirmatory sampling for lead at the basin, if removal occurs.

MONITORING

The following activities are planned for First Quarter 2010:

- Continue weekly perimeter air monitoring program in accordance with the Sampling and Analysis Plan. Perimeter air lead results will be compared to 0.15 $\mu\text{g}/\text{m}^3$ lead (effective October 2009).
- Perform First Quarter 2010 post-construction river sediment monitoring in accordance with the Sampling and Analysis Plan.
- Perform daily basin discharge monitoring and monthly sampling and lead analysis in accordance with the Sampling and Analysis Plan.
- Submit results for the First Quarter 2010 Ambient Air Monitoring Report.
- Submit results for the First Quarter 2010 river sediment monitoring.

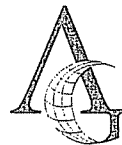
SITE MAINTENANCE

No activities are planned for First Quarter 2010.

COMMUNITY RELATIONS

The following activities are planned for First Quarter 2010:

- **January through March, 2010** - Continue to regularly update the Marjol web site with any air monitoring data, photos, the weekly construction schedules, and other information.
- **January through March, 2010** - Continue to provide summaries to Cocciardi, USEPA, and PADEP regarding the schedule of construction activities.



- **January through March, 2010** - Continue to provide Throop Borough and Cocciardi data for any Personal Air Monitoring (PAM) area lead samples that are collected and high-volume air sampling results.
- **January 5, 2010** - Attend Throop Borough Council's Re-organizational Meeting.
- **January 11, 2010** - Attend Throop Borough Council's Special Monthly Work Session and Meeting.
- **January 25, 2010** - Attend Throop Borough Council's Monthly Monthly Work Session and Meeting.
- **February 8, 2010** - Attend Throop Borough Council's Special Monthly Work Session and Meeting.
- **February 22, 2010** - Attend Throop Borough Council's Monthly Monthly Work Session and Meeting.
- **March 8, 2010** - Attend Throop Borough Council's Special Monthly Work Session and Meeting.
- **March 22, 2010** - Provide a summary of activities at the Site to Throop Borough and attend Throop Borough Council's Monthly Monthly Work Session and Meeting.
- **March 26, 2010** - Send out Marjol Battery Site Newsletter Number 96 providing an update on construction activities.

ANTICIPATED PROBLEMS

No problems are anticipated during First Quarter 2010.

Barbara L. Forslund, P.E.

Advanced GeoServices Project Coordinator

cc:	Lisa Ayers, Advanced GeoServices	Throop Borough Council
	James Cronmiller, Gould	Louis Cimini, Throop Borough Solicitor
	Leonard Zelinka, PADEP	Len Zelinka, PADEP
	Adam Doubleday, Advanced GeoServices	Repository (c/o Lisa Ayers)
	Roger Moose, GF	Rocco DiPietro, Cocciardi

TABLE 1
Marjol Corrective Measures Implementation
Permitting Timeline

Permit Name	Earliest Design Stage When Submitted	Entity Applying for the Permit	Permitting Agency	Time for Processing and Review ¹	Permit Expiration	Pre-Construction Notification	Completion Activities	Date Submitted	Date Approved
Individual NPDES Permit (PAI023508001)	At completion of 90% Design	AGC	LCCD	30 days General; 120 days Individual	5/8/2013; Renewal due 180 days prior to expiration.	30-day public comment period published 3/8/2008. Public hearing held 4/16/2008. LCCD was notified of the pre-construction meeting on 4/18/08.	Submit Notice of Termination within 7 working days after final stabilization is achieved.	12/26/2007 General; 1/31/2008 Individual	2/14/2008 Administratively complete; permit issued 5/9/2008
General NPDES Permit (PAG2-0035-09-005) - Throop Borough Borrow Area	N/A	BCM / AGC	LCCD	30 days	3/20/2014	LCCD notified on 3/25/09	Submit Notice of Termination	2/09, 3/09	3/23/2009
Wetlands Waiver	At completion of 30% Design	AGC	PADEP	130 days	No expiration.	PA Fish & Wildlife notified 4/21/2008	None required.	8/3/2007	9/4/2007
Air Permit Request for Determination - Solidification	At completion of 30% Design	AGC	PADEP	30 days	No expiration.	Notify 2 weeks prior to start of solidification	None required.	8/17/2007, Revision submitted 9/13/2007	10/22/2007
Air Permit Request for Determination - Passive Gas Vent	At completion of 90% Design	AGC	PADEP	30 days	No expiration.	None required.	None required.	11/13/2007; 2/20/2008 revisions; 4/24/2008 electronic submission of 2/20/2008 revision	12/18/2007; revision approved 4/28/2008
Regulated Fill General Permit	After approval of other permits	AGC	PADEP	Approx. 60 days	12/24/2013	None required.	Submit proof of recorded deed notice to PADEP.	11/7/2008	11/24/2008 Administratively complete; permit issued 2/25/09
Fence Permit (08-1001)	At completion of 90% Design	AGC	Throop Borough	Approx. 60 days	1 year from issue unless work has begun. Work must be complete in 2 years from issue. Renewal due 60 days prior to expiration.	Zoning Officer notified 4/21/2008.	Zoning Officer inspection.	12/14/2007; amended 5/21/2008; amended 8/6/2008	1/24/2008; 5/27/2008; 8/14/2008
Preliminary Land Development Plan	At completion of 90% Design	AGC	Throop Borough	Approx. 100 days	3 years from issue. 1 year extension request due 90 days prior to expiration.	None required.	None required.	12/5/07 (Borough); 12/10/07 (LCRPC)	12/10/07 (LCRPC, no review); Planning Commission approval 5/5/2008
Stormwater Management Plan	At completion of 90% Design	AGC	Throop Borough	Approx. 150 days	No expiration.	None required.	Provide notification to Borough Engineer when complete. Inspection by Borough Engineer.	12/5/07 (Borough); 12/10/07 (LCRPC)	12/10/07 (LCRPC, no review); R. Nitch letter received 4/25/2008; Planning Commission approval 5/5/2008
Building Permit (if applicable)	At completion of 90% Design	AGC	Throop Borough	To be determined	Begin work within 6 months of issue. Expires 12 months from issue.	None required.	None required.	n/a	6/24/2008
Trailer Occupancy (Special Exemption Use)	After contractor selection	Contractor	Throop Borough	Approx. 60 days	2 years from issue.	Notify Zoning Officer prior to use.	None required.	Discussed at preconstruction meeting 4/29/2008	5/1/2008
Air Permit Request for Determination - Solidification at Borrow Source	N/A	Contractor	PADEP		No expiration.	None required.	None required.	10/7/2009	10/13/2009

NOTE:

1. Review time began when application is administratively complete.
2. Because of the extensive clearing and grading activities, the Preliminary Land Development Plan was submitted to Throop Borough which required a review by the Planning Commission and Engineer.

Table 2
DESIGN ADDENDUM SUMMARY
Marjol Battery Site



Addendum No.	Description	Submission Date	USEPA/PADEP Approval Date	Applicable Permit Revision (if any)					Change Order		
				Permit	Submission Date	Description	Receiving Party	Approval Date	No.	Submission Date	Approval Date
n/a	Change super silt fence to 24 inch silt soxx	5/23/2008	n/a	NPDES	5/23/2008	Minor Modification Permit Addendum	LCCD	5/27/2008	n/a	5/23/2008	5/23/2008
n/a	Add permanent fence at low area at North Woods	5/21/2008	n/a	Fence	5/21/2008		Throop Borough	5/27/2008	n/a		
1	Immediate Action Level for real-time monitoring at non-contaminated areas	6/4/2008	6/9/2008	n/a	n/a	n/a	n/a	n/a	n/a		
n/a	Install temporary 6 ft chain link fence at south and west facility boundary	6/6/2008	n/a	n/a	n/a	n/a	n/a	n/a	1	6/17/2008	6/23/2008
2	Excavation at NW-24 and NW-25	6/24/2008	7/2/2008	NPDES	6/25/2008	Minor Modification No. 2	LCCD	7/23/2008	n/a	n/a	n/a
3	Anti-seep collar location	6/25/2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	Alternate grout for boring abandonment	7/1/2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4	Stockpile cover, Excavation Sequence, Outlet Structure, Anti-Seep Collar, SS-8a & 8b location	7/14/2008	n/a	NPDES	7/3/2008, drawings 7/14/08	Minor Modification No. 3	LCCD	7/23/2008	n/a	n/a	n/a
5	Interim Proposed Basin Discharge procedures	7/30/2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	Extend toe of slope due to existing grade. Additional clearing, silt sock relocation, temporary fence relocation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	8/4/2008	8/6/2008
n/a	Gate at Ash Street extension	8/6/2008	n/a	Fence	8/6/2008	Permit Addendum No.2	Throop Borough	8/14/2008	n/a	n/a	n/a
n/a	Problem Resolution Procedures	8/6/2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	Collocated PAM monitoring, increased observation readings for real-time TSP	8/15/2008	n/a	n/a	n/a	n/a	n/a	n/a	5	9/8/2008	9/9/2008
n/a	Survey at additional North Woods Area	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3	8/26/2008	8/26/2008
n/a	Existing Basin Dewatering System	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6	9/11/2008	9/11/2008
n/a	Additional T&M rate sheet	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7	9/12/2008	9/25/2008
6	Change reinforced slope to 2:1 slope	9/15/2008	10/2/2008	NPDES	3/10/09, 4/3/09	Minor Modification No. 4	LCCD	seed 10/20/08	n/a	n/a	n/a
n/a	Costs for terra tubes and Pond Clear	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8	9/15/2008	9/30/2008
n/a	Re-establish Exclusion Zone	9/21/2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	Suspend real-time air monitoring during days with precipitation	9/26/2008	9/26/2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	Revisions to subcontractor documentation and invoice procedures	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4	9/30/2008	10/8/2008
7	Martarano alternate seed mix	10/20/2008, 3/10/09, revised 4/3/09	12/15/2009	NPDES	3/10/09, 4/3/09	Minor Modification No. 4	LCCD	verbal 10/30/08	T&M	n/a	n/a
n/a	Change stabilization to mulch only, in lieu of seed and mulch due to winter weather	n/a	12/5/2008	NPDES	verbal	n/a	LCCD	verbal 11/25/08	11	12/9/2008	3/3/2009
7	Revise excavation sequence to reflect work performed in Phase I and remaining work to be performed in Phase II	10/2/2008, 11/11/2008, 3/10/09, revised 4/3/09	n/a	NPDES	3/10/09, 4/3/09	Minor Modification No. 4	LCCD	pending	n/a	n/a	n/a
7	Revise SAP Tab 2 and 8	3/10/09, revised 4/3/09	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
7	Change 2:1 slope seed mix as recommended by EPA	3/10/09, revised 4/3/09	n/a	NPDES	3/10/09, 4/3/09	Minor Modification No. 4	LCCD	4/28/2009	n/a	n/a	n/a
7	Revised permanent access road stone	3/10/09, revised 4/3/09	n/a	NPDES	3/10/09, 4/3/09	Minor Modification No. 4	LCCD	4/28/2009	12	2/17/2009	3/3/2009
7	Franko Street extension	3/10/09, revised 4/3/09	n/a	NPDES	3/10/09, 4/3/09	Minor Modification No. 4	LCCD	4/28/2009	pending	pending	pending
7	Grove Street removal and restoration	3/10/09, revised 4/3/09	n/a	NPDES	3/10/09, 4/3/09	Minor Modification No. 4	LCCD	4/28/2009	n/a	n/a	n/a
n/a	Regulated Fill Permit WMGR096	2/25/2009	PADEP	Regulated Fill	2/12/2009	Soil Sampling Plan	PADEP	2/25/2009	n/a	n/a	n/a
n/a	General NPDES Permit PAG-2-0035-09-005	2/26/2009	3/23/2009	NPDES	3/10/2009	Throop Borrow Fill Removal Project.	PADEP, LCCD	3/23/2009	pending	pending	pending
8	Revised berm and solidified waste grades.	6/12/2009	6/17/2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
9	Revised final grades	6/18/2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
10	Revised solidified waste and final grades	7/16/2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	Storage of ECM	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	12/31/2008	1/13/2009
n/a	Tree removal at Areas T & M	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10	12/9/2008	3/3/2009
n/a	Contract revision	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13	n/a	3/3/2009
n/a	Chip/grind stumps from Borough borrow and haul road	n/a	n/a	n/a	n/a	n/a	n/a	n/a	14	4/20/2009	4/21/2009
n/a	Excavate fill from F & G, place at alternate support zone	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15	4/20/2009	4/21/2009
n/a	Hydraulic hammer to reduce rocks at Borough borrow	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16	5/4/2009	5/5/2009
n/a	Grading, drainage, seeding, and stone improvements for haul road	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17	5/5/2009	5/12/2009
n/a	Stored materials - geosynthetics	n/a	n/a	n/a	n/a	n/a	n/a	n/a	18	6/3/2009	6/16/2009
n/a	Change permanent seed mix to steep slope mix	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20	8/12/2009	8/21/2009
n/a	Change portions of access road stone from AASHTO#3 to 4A modified	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21	9/10/2009	9/15/2009
n/a	Jute mat in lieu of temporary or permanent ECM	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22	10/30/2009	11/11/2009
n/a	Transport solidified material from Church	n/a	n/a	n/a	n/a	n/a	n/a	n/a	19	9/1/2009	9/8/2009
n/a	Screen and import 6" topsoil and cap cover soil	n/a	n/a	n/a	n/a	n/a	n/a	n/a	23	11/23/2009	11/30/2009
n/a	Rehandle cap cover soil and topsoil	n/a	n/a	n/a	n/a	n/a	n/a	n/a	23A	11/23/2009	12/1/2009



**TABLE 3
CORRECTIVE MEASURES IMPLEMENTATION SCHEDULE
FOURTH QUARTER 2009**

Estimated time for construction is 17 months of construction with minimum winter shutdown of 120 days (December through March).

	Milestone		Projected Dates from CMI		Actual Dates
			Work Plan	Revised Projected Dates	
1)	Restart Letter Received	Actual	9/19/2005	n/a	9/19/2005
2)	Notice on Dispute	Actual	9/26/2005	n/a	9/26/2005
3)	Consent Order Rec'd	Actual	12/1/2005	n/a	12/1/2005
4)	Consent Order Signed	Actual	7/13/2006	n/a	7/13/2006
5)	Proj. Coord. And Consultant Notice	In Order	7/13/2006	n/a	7/13/2006
6)	Title Notice Submitted	due 30 days after 4)	8/14/2006	n/a	8/14/2006 (Draft submitted) 5/29/2007 (approved) 6/4/2007 (recorded)
7)	Cost Estimates Submitted	due 30 days after 4)	8/14/2006	n/a	8/14/2006*
8)	CMI Work Plan Submitted	due 60 days after 4)	7/21/2006	n/a	7/21/2006*
9)	Financial Assurances Due	60 days after approval of 7)	11/10/2006 (assumed 30 days to approve 7)	12/31/2007	8/11/2008
10)	CMI WP Approved	assumed 60 days after 8). Can approve PDI early (14 days)	9/19/2006 for entire WP. 8/4/2006 for PDI	n/a	9/1/2006 (mine fire), 11/2/2006 (geoprobe), 2/13/2007 (Work Plan except soil sampling), 4/20/2007 (soil), 5/3/2007 (Work Plan except Section 7.5)
11)	PDI Start	assumed 3 weeks after PDI Work Plan approval, weather permitting	8/28/2006	n/a	9/12/2006 (mine fire), 11/27/2006 (geoprobe), 4/23/2007 (soil, lead), 8/6/2007 (soil, PCB PAH)
12)	PDI Complete	assumed 3 weeks after 11)	9/18/2006	n/a	10/16/2006 (mine fire), 11/29/2006 (geoprobe), 5/25/2007 (soil, lead), 8/6/2007 (soil, PCB PAH)
13)	Prelim. Design Submitted	due 90 days after 12)	12/18/2006	n/a	6/29/2007
14)	Prelim. Design Comments	Assumed 45 days after 13)	2/1/2007	n/a	8/10/2007
15)	Revised Cost Estimate	due on 2/15/2007	2/15/2007	n/a	2/15/2007
16)	90% Design Submitted	due 90 days after 14)	5/2/2007	n/a	11/8/2007
17)	Request for Bid Issued	assumed 2 weeks after 16)	5/16/2007	n/a	12/7/2007
18)	90% Design Approved with Comments	Assumed 30 days after 16)	6/1/2007	n/a	12/13/07 (except SAP)
19)	100% Design Complete to Bidders and EPA	due 2 weeks after 18)	6/15/2007	n/a	4/11/2008, Revised 5/12/2008, Revised 6/3/2008
20)	100% Design Approval	assumed 2 weeks after 19)	6/29/2007	4/25/2008	5/9/2008, 5/29/2008, 6/9/2008
20a)	Permit Approvals Complete			4/28/2008	2/25/2009
21)	Final Title Notice Submitted	due 30 days after 20)	7/30/2007	11/30/2009	
22)	Bids Received	due 3 weeks after 20)	7/20/2007	n/a	2/11/2008
23)	Award	assumed 2 weeks after 22)	8/3/2007	n/a	4/2/2008
24)	Notice of Contractor to EPA/DEP	Day after award	8/4/2007	n/a	4/3/2008
25)	Revised Cost Estimate	due on 8/15/2007	8/15/2007	n/a	8/15/2007
26)	Construction Start	assumed 2 weeks after award and approvals, weather permitting	8/20/2007	5/12/2008	5/12/2008
27)	Revised Cost Estimate	due 60 days after 20)	8/28/2007	5/25/2008	5/23/2008, approved 6/12/2008
28)	Revised Cost Estimate	due on 2/15/2008	2/15/2008	5/25/2008	5/23/2008, approved 6/12/2008
29)	Revised Cost Estimate	due on 8/15/2008	8/15/2008	8/15/2008	7/9/2008
30)	Revised Cost Estimate	due on 2/15/2009	2/15/2009	2/15/2009	2/15/2009
31)	Construction Complete	See note above	7/20/2009	6/30/2010	
32)	Revised Cost Estimate	due on 8/15/2009	8/15/2009	8/15/2009	8/15/2009
	Revised Cost Estimate	due on 2/15/2010	n/a	2/15/2010	
33)	Submit CMI Report	due 90 days after 31)	10/19/2009	9/30/2010	
34)	CMI Report Approved	assumed 30 days after 33)	11/18/2009	10/30/2010	

NOTES

- The dates in bold are committed dates for submissions. Other dates are assumed time frames for activities. The projected dates are thus minimum dates that depend on earlier dates meeting the schedule. The schedule assumes that the Borough permitting process will not extend the time frame for construction start.
- * indicates that USEPA and PADEP approval of the submitted document has not yet been received.
- Projected dates are from CMI Work Plan Table 11-1 and represent the original schedule for the CMI. The revised projected dates reflect the current schedule based on approvals received to-date.
- USEPA and PADEP approved not submitting the February 15, 2008 revised cost estimate until the 100% Design was approved and construction costs were finalized.

**Table 4
Marjol Battery Site
Excavation Area
Confirmation Sampling Data**

Sample ID	Location of Excavation Area	Excavation Completion Date	Is backfill depth less than or greater than 2 feet?	Sample Area (<2 ft backfill - 0.5 acre; >2 ft backfill - 1 acre) ¹	XRF Confirmation Sampling Date	XRF Confirmation Results (95th UCL, total lead mg/kg)	Excavation Depth	PCB/PAH Sample ID (not required if excavation depth >4ft)	PCB/PAH Sampling Result	EPA Approval of Sampling Results	Date Backfill Approval given to SCE	Backfill & Topsoil Completion Date	Permanent Seed Completion Date
EXS	Facility	8/12/2008	>2 ft.	0.16 Acres	8/13/2008	139	4- 20 ft.	N/A	N/A	See note 2 below	8/13/2008 ²	completed with North Swale construction	completed with North Swale construction
CNW-3C	North Woods	10/13/2008	<2 ft	0.16 Acres	10/14/2008	174	6"	N/A	N/A	YES	10/14/2008	10/16/2008	10/21/2008
CNW-1	North Woods	10/13/2008	<2 ft	0.39 Acres	10/13/2008	199	6"	N/A	N/A	YES	10/14/2008	10/16/2008	10/21/2008
CNW-2 R-4	North Woods	10/13/2008	<2 ft	0.57 Acres	10/13/2008	192	6"	N/A	N/A	YES	10/14/2008	10/16/2008	10/21/2008
CNW-3A NW-5 NW-6	North Woods	10/16/2008	<2 ft	0.74 Acres	10/16/2008	142	6"	N/A	N/A	YES	10/17/2008	10/23/2008 ³	10/21/2008 ⁴
CM-1	North Woods	10/20/2008	<2ft	0.24 Acres	10/20/2008	176	6"	N/A	N/A	YES	10/21/2008	10/21/2008	11/8/2008
CNW8-DB	North Woods	10/22/2008	<2ft	0.28 Acres	11/11/2008	176	6"	N/A	N/A	YES	11/12/2008	12/1/2008	12/3/2008
CNW-7D	North Woods	10/22/2008	<2 ft	<0.50 Acres	10/22/2008	143	6"	N/A	N/A	YES	10/23/2008	10/23/2008	11/4/2008 ⁵
EXFW	Facility	10/8/2008	>2ft	<0.74 Acres	10/23/2008	359	10-30'	N/A	N/A	YES	10/24/2008	11/30/2009 topsoil	11/30/2009
CW-1CB NW-10 NW9	North Woods	10/24/2008	<2 ft	0.874 Acres	10/23/2008	220	6"	N/A	N/A	YES	10/24/2008	10/24/2008	4/15/2009
EXFE	Facility	10/27/2008	>2 ft	<0.74 Acres	10/30/08	102	5-10'	Not required	N/A	YES	10/31/2008	11/30/2009 topsoil	11/30/2009
CNW-7AC NW-24	North Woods	10/27/2008	varies from -2' to +6'	0.46 Acres	10/31/2008	184	6"	N/A	N/A	YES	10/31/2008	11/3/2008	11/4/2008
CNW-12AD	North Woods	10/30/2008	<2 ft	0.2 Acres	11/1/2008	111	6"	N/A	N/A	YES	11/5/2008	12/1/2008	4/15/2009
CNW-13 NW-14 W-1A	North Woods	10/30/2008	<2 ft	0.85 Acres	11/1/2008	176	6"	N/A	N/A	YES	11/5/2008	12/1/2008	4/15/2009
CW-6CD	North Woods	10/30/2008	<2 ft	0.39 Acres	11/1/2008	109	6"	N/A	N/A	YES	11/5/2008	12/1/2008	4/15/2009
EXGKJ	Facility	10/21/2008	>2 ft	0.42 Acres	11/3/2008	270	20-30'	N/A	N/A	YES	11/3/2008	11/30/2009 topsoil	11/30/2009
CNW-15 NW-16	North Woods	11/3/2008	<2ft (minus 2-6')	0.96 Acres	11/6/2008	241	6"	N/A	N/A	YES	11/7/2008	12/1/2008	7/14/2009
CNW-19	North Woods	11/6/2008	<2ft	0.48 Acres	11/7/2008	423	6"	N/A	N/A	YES	11/8/2008	12/3/2008	7/14/2009
CW2-NW18D	North Woods	11/5/2008	<2ft	0.92 Acres	11/7/2008	115	6"	N/A	N/A	YES	12/1/2008	12/1/2008	12/3/2008
CNW17-NW18ABC	North Woods	11/3/2008	<2ft	0.92 Acres	11/7/2008	130	6"	N/A	N/A	YES	12/1/2008	12/1/2008	12/3/2008
CW6-W8D	North Woods	11/6/2008	<2ft	0.75 Acres	11/7/2008	104	6"	N/A	N/A	YES	11/11/2008	12/1/2008	12/3/2008
CW3	North Woods	11/6/2008	<2ft	0.51 Acres	11/7/2008	128	6"	N/A	N/A	YES	11/11/2008	12/1/2008	12/3/2008
CW4-ABC	North Woods	11/6/2008	<2ft	0.23 Acres	11/7/2008	106	6"	N/A	N/A	YES	11/11/2008	12/1/2008	12/3/2008
CW12BC-W8B	North Woods	10/30/2008	<2ft	0.36 Acres	10/30/2008	100	6"	N/A	N/A	YES	11/11/2008	12/1/2008	12/3/2008
CNW-21	North Woods	11/10/2008	<2ft	0.28 Acres	11/10/2008	231	2-4'	N/A	N/A	YES	11/11/2008	6/29/2009	7/14/2009
CNW-20	North Woods	11/10/2008	<2ft	0.4 Acres	11/10/2008	152	2-4'	N/A	N/A	YES	11/11/2008	6/29/2009	7/14/2009
CNR-2B	North Woods	11/19/2008	>2ft	0.075 Acres	11/19/2008	129	2-3'	N/A	N/A	YES	11/20/2008	6/29/2009	7/14/2009
EXT ⁴	Facility	12/4/2008	>2ft	0.14 Acres	12/4/2008	302	4-17'	N/A	N/A	YES	12/4/2008	4/30/2009	4/30/2009
EXU-NE ⁴	Facility	12/3/2008	>2ft	0.052 Acres	12/3/2008	200	6-13'	N/A	N/A	YES	12/4/2008	4/30/2009	4/30/2009
EXJM-B ⁴	Facility	12/18/2008	<2ft		12/19/2008	130	2-4'	AWC-CA-E-01	All results below Performance Standards	YES	1/22/2009	pending topsoil	pending topsoil
EXJM-A ⁴	Facility	12/15/2008	>2ft	0.06 Acres	12/15/2008	186	4'	N/A	N/A	YES	12/15/2008	pending topsoil	pending topsoil
CW-10	North Woods	12/16/2008	<2ft	0.09 Acres	2/25/2009	87	6"	N/A	N/A	YES	3/14/2009	7/10/2009	not complete
CSWNW3	North Woods	12/16/2008	<2ft	0.33 Acres	3/16/2009	132	6"	N/A	N/A	YES	3/18/2009	7/10/2009	7/21/2009
EXJ	Facility	4/6/2009	>2ft	0.92 Acres	4/7/2009	266	2-10'	N/A	N/A	YES	4/16/2009	Topsoil pending	Pending topsoil completion
EXLJ	Facility	4/6/2009	>2ft	0.36 Acres	4/8/2009	241	5-15'	N/A	N/A	YES	4/17/2009	Topsoil pending	Completed with topsoil
EXEW	Facility	6/8/2009	>2ft	0.36 Acres	6/8/2009	162	5-20'	N/A	N/A	YES	6/8/2009	11/30/2009 topsoil	11/30/2009
EXDS	Facility	6/2/2009	>2ft	0.36 Acres	6/2/2009	184	8-10'	N/A	N/A	YES	6/3/2009	7/21/2009	7/24/2009
EXDN	Facility	5/15/2009	>2ft	0.47 Acres	5/21/2009	190	5-10'	N/A	N/A	YES	5/22/2009	7/21/2009	7/24/2009
EXAE	Facility	5/20/2009	>2ft	0.37 Acres	5/20/2009	322	4-20'	N/A	N/A	YES	5/21/2009	7/23/2009	7/24/2009
EXAW	Facility	5/20/2009	>2ft	0.20 Acres	5/20/2009	278	3-8'	N/A	N/A	YES	5/21/2009	7/23/2009	7/24/2009
EXOE	Facility	5/6/2009	>2ft	<.5 Acres	5/18/2009	198	5-30'	N/A	N/A	YES	5/21/2009	Parking Area	Parking Area
EXPS	Facility	5/12/2009	>2ft	0.35 Acres	5/18/2009	150	4-8'	N/A	N/A	YES	5/18/2009	completed with South Swale construction	completed with South Swale construction
EXRQW	Facility	5/12/2009	>2ft	0.40 Acres	5/14/2009	131	4-12'	N/A	N/A	YES	5/15/2009	completed with South Swale construction	completed with South Swale construction
EXPN	Facility	5/12/2009	>2ft	0.35 Acres	5/13/2009	260	4-6'	N/A	N/A	YES	5/14/2009	completed with South Swale construction	completed with South Swale construction
EXQE	Facility	5/12/2009	>2ft	0.33 Acres	5/13/2009	256	4-10'	N/A	N/A	YES	5/14/2009	completed with South Swale construction	completed with South Swale construction
EXONC	Facility	5/6/2009	>2ft	0.44 Acres	5/8/2009	262	4-8'	N/A	N/A	YES	5/9/2009	Pending South Swale/CA Berm completion	Pending South Swale/CA Berm completion
EXONS	Facility	5/6/2009	>2ft	0.77 Acres	5/8/2009	316	5-8'	AWC-CA-S-01	All results below Performance Standards	YES	5/9/2009 (>4' deep) 5/20/09 (<4' deep)	Pending South Swale/CA Berm completion	Pending South Swale/CA Berm completion
EXKE	Facility	4/20/2009	>2ft	0.54 Acres	4/20/2009	244	6-16'	N/A	N/A	YES	4/21/2009	Pending topsoil/CA berm completion	Pending topsoil/CA berm completion
EXKW	Facility	4/20/2009	>2ft	0.52 Acres	4/20/2009	317	6-16'	N/A	N/A	YES	4/21/2009	Pending topsoil	Pending topsoil
EXJW	Facility	4/16/2009	>2ft	0.31 Acres	4/16/2009	395	4-13'	N/A	N/A	YES	4/17/2009	Pending topsoil	Pending topsoil
CSWNW4-5	North Woods	4/15/2009	>2ft	0.92 Acres	4/16/2009	334	6-18"	N/A	N/A	YES	4/17/2009	7/21/2009	7/24/2009
CW5-W7	North Woods	4/9/2009	>2ft	<1.0 Acre	4/13/2009	105	6"-3'	N/A	N/A	YES	4/17/2009	7/23/2009	7/24/2009
CSWNW1-2	North Woods	4/9/2009	>2ft	<1.0 Acre	4/13/2009	482	6"-1'	N/A	N/A	YES	4/17/2009	7/10/2009	7/10/2009
EXIE	Facility	4/4/2009	>2ft	0.31 Acres	4/17/2009	349	3' (intact rock) to 8'	N/A	N/A	YES	4/29/2009	6/29/2009	7/14/2009
EXIW	Facility	4/4/2009	>2ft	0.35 Acres	4/16/2009	249	3' (intact rock) to 8'	N/A	N/A	YES	4/29/2009	6/29/2009	7/14/2009
EXCE	Facility	6/5/2009	>2ft	0.28 Acres	6/8/2009	254	3-4'	AWC-CA-N-01	All results below Performance Standards	YES	6/15/2009	11/18/2009	11/18/2009
EXCW	Facility	6/5/2009	>2ft	0.38 Acres	6/8/2009	150	3-4'	AWC-CA-N-01	All results below Performance Standards	YES	6/15/2009	11/18/2009	11/18/2009
EXV ⁴	Facility	6/19/2009	>2ft	0.22 Acres	6/19/2009	105	4'-10'	N/A	N/A	YES	6/22/2009	7/22/09 backfill	11/19/2009
EXOMU	Facility	6/17/2009	>2ft	<0.50 Acres	6/17/2009	268	4'-6"	N/A	N/A	YES	6/17/2009	6/17/2009	RCE/STONE
EXBE	Facility	6/11/2009	>2ft	0.25 Acres	6/11/2009	304	15-25'	N/A	N/A	YES	6/12/2009	7/22/09 backfill	11/19/2009
EXBW	Facility	6/17/2009	>2ft	0.4 Acres	6/17/2009	161	10-15'	N/A	N/A	YES	6/18/2009	7/22/09 backfill	11/19/2009
EXGS	Facility	6/19/2009	>2ft	0.37 Acres	6/22/2009	250	2-4'	N/A	N/A	YES	6/23/2009	8/3/09 backfill	9/30/2009
EXGS2	Facility	6/29/2009	varies between one and six feet	0.37 Acres	6/29/2009	177	2-4'	N/A	N/A	YES	6/30/2009	9/30/09 topsoil	9/30/09 and 10/27/09
EXDS2	Facility	7/2/2009	>2ft	<0.50 Acres	7/2/2009	230	2-9'	N/A	N/A	YES	7/7/2009	08/03/09 backfill	9/25/2009
EXHNE	Facility	9/24/2009	>2ft	0.41 Acres	9/24/2009	256	9'	N/A	N/A	YES	9/25/2009	11/25/09 backfill	11/30/2009
EXFHR ⁶	Facility	9/21/2009	>2ft	0.04 Acres	9/21/2009	194	2'	N/A	N/A	YES	9/25/2009	11/30/09 topsoil	11/30/2009
EXBW2	Facility	11/11/2009	>2ft	<0.50 Acres	11/11/2009	317	6" to 3'	N/A	N/A	YES	11/13/2009	11/18/2009	11/18/2009
EXCW2	Facility	11/13/2009	1-3ft	0.05 Acres	11/13/2009	250	1-3'	N/A	N/A	YES	11/17/2009	11/18/2009	11/18/2009
EXHC ⁷	Facility	10/23/2009	>2ft	0.61 Acres	10/23/2009	137	2' to 28'	N/A	N/A	YES	10/27/2009	11/25/2009	12/1/2009 (partial completion)
EXHW ⁷	Facility	10/26/2009	>2ft	0.53 Acres	10/26/2009	276	2' to 20'	N/A	N/A	YES	10/27/2009	11/25/2009	12/1/2009 (partial completion)

N/A = Not Applicable

- Notes:
Excavation start date based on grubbing activities.
- Excavation areas sampled during PDI sampling (North Woods) can have a confirmatory sampling area up to one acre in size as per the SAP
 - AGC approval, onsite regulatory representative observed final excavation area. EPA approval for all other excavation areas.
 - Areas within excavation area were used for topsoil stockpiling once confirmatory sampling was approved, final topsoil grading and/or seeding was postponed until stockpile was used. Dates may appear to inconsistent but indicate date of entire area being topsoiled or seeded.
 - Excavation areas requiring PCB/PAH sampling if excavation is <4 feet
 - AWC-CA-E-02 was collected at Area J on April 8, 2009. Results indicated PCB/PAH levels above the performance standard. The excavation was extended below four foot depth and additional PCB/PAH sampling was not required.
 - EXFHR was resampled due to cross-contamination during stormwater management control. This area was actually located in Area F and was resampled during excavation activities in Area H.
 - Area EXHW and Area EXHC include surrounding excavation areas as the screening process cross-contaminated these adjacent areas.
 - XRF screening at the sediment basin (Basin 01, 02 and 03) and CD-7 are not presented in this table. See 4Q09 quarterly report.
 - Post-sediment removal XRF screening at Area A is not included in this table. See 4Q09 quarterly report.

TABLE 5
MARJOL BATTERY SITE
REAL-TIME AIR MONITORING AND COLLOCATED PAM SUMMARY
4TH QUARTER 2009

Date	AM-#	Time (test -1)	Location	Waste Type	Action Level	Number of Hourly Average Exceedences	PAM ID	PAM Result (ug/m3)	Reason for Analysis	Reason for Void
10/1/2009	2	0800 - 1800	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100109-WH-AM2	<0.068	Daily Analysis	
	3	0706 - 1706	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100109-WH-PSC1	<0.052	Daily Analysis	
	4	0814 - 1814	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0809 - 1809	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100109-WH-PSC2	Archived		
	6	0804 - 1804	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100109-WH-AM6	Archived		
							100109-WH-PDS	<0.048	Daily Analysis	
						100109-WH-PGS	Archived			
10/1/2009 NWH	2	1826 - 0626	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100109-NWH-AM2	Archived		
	4	1814 - 0714	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1818 - 0718	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100109-NWH-PSC1	Archived		
	6	1825 - 0725	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100109-NWH-AM6	Archived		
							100109-NWH-PDS	Archived		
							100109-NWH-PGS	Archived		
10/2/2009	2	0800 - 1800	West of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100209-WH-AM2	<0.056	Daily Analysis	
	3	0706 - 1706	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100209-WH-PSC1	<0.056	Daily Analysis	
	4	0814 - 1814	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100209-WH-AM4	Archived		
	5	0809 - 1809	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100209-WH-PSC2	Archived		
	6	0804 - 1804	East of CA, upwind of Site activities	non-contaminated	2.0 mg/m ³	0				
							100209-WH-PDS	Archived		
						100209-WH-PGS	Archived			
						100209-WH-PLR	<0.074	Daily Analysis		
10/2/2009 NWH	2	1655 - 0755	West of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100209-NWH-AM2	Archived		
	4	1650 - 0750	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100209-NWH-AM4	Archived		
	5	1646 - 0846	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0				
	6	1642 - 0842	East of CA, upwind of Site activities	non-contaminated	2.0 mg/m ³	0				
							100209-NWH-PDS	Archived		
							100209-NWH-PGS	Archived		
						100209-NWH-PLR	Archived			
10/3/2009	1	1327 - 1410	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0				
	2	0800 - 1800	West of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100309-WH-AM2	<0.109	Daily Analysis	
	3	0754 - 1154	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100309-WH-PSC1	<0.124	Daily Analysis	
	4	0848 - 1248	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100309-WH-AM4	Archived		
	5	0854 - 1254	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100309-WH-PSC2	Archived		
	6	0904 - 1204	East of CA, upwind of Site activities	non-contaminated	2.0 mg/m ³	0				
						100309-WH-PDS	Archived			
						100309-WH-PGS	Archived			
						100309-WH-PLR	<0.124			
10/3 to 10/5 NWH	1	0843 - 0143	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100309-NWH-AM1	<0.018	Battery Failure	
	4	1304 - 0803	West of CA, upwind of Site activities	non-contaminated	2.0 mg/m ³	0				
	5	1300 - 0759	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	HV-SC-1002-100509	Archived		
	6	1258 - 0657	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100309-NWH-AM6	Archived		
							100309-NWH-PDS	Archived		
							100309-NWH-PGS	Archived		
10/5/2009	1	0843 - 1643	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100509-WH-AM1	0.066	Daily Analysis	
	2	0803 - 1602	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100509-WH-PSC1	<0.075	Daily Analysis	
	4	0807 - 1607	West of CA, upwind of Site activities	non-contaminated	2.0 mg/m ³	0				
	5	0803 - 1603	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100509-WH-PSC2	Archived		
	6	0759 - 1558	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100509-WH-AM6	Archived		
							100509-WH-PDS	<0.075	Daily Analysis	
						100509-WH-PGS	Archived			
10/5/2009 NWH	1	0843 - 2343	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100509-WH-AM1	Void		Flow fault
	4	1636 - 0636	West of CA, upwind of Site activities	non-contaminated	2.0 mg/m ³	0				
	5	1637 - 0737	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100509-NWH-PSC1	Archived		
	6	1634 - 0733	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100509-NWH-AM6	Void		Flow fault
							100509-NWH-PDS	Archived		
							100509-NWH-PGS	Void		Flow fault
10/6/2009	1	0843 - 1743	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100609-WH-AM1	0.056	Daily Analysis	
	2	0807 - 1606	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100609-WH-PSC1	<0.064	Daily Analysis	
	4	0810 - 1609	West of CA, upwind of Site activities	non-contaminated	2.0 mg/m ³	0				
	5	0804 - 1604	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100609-WH-PSC2	Archived		
	6	0801 - 1600	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100609-WH-AM6	Archived		
							100609-WH-PDS	<0.053	Daily Analysis	
						100609-WH-PGS	Archived			

TABLE 5
MARJOL BATTERY SITE
REAL-TIME AIR MONITORING AND COLLOCATED PAM SUMMARY
4TH QUARTER 2009

Date	AM-#	Time (test -1)	Location	Waste Type	Action Level	Number of Hourly Average Exceedences	PAM ID	PAM Result (ug/m3)	Reason for Analysis	Reason for Void
10/6/2009	1	NA	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100609-NWH-AM1	<0.037	Dust Track battery died	
NWH	4	1625 - 0724	West of CA, upwind of Site activities	non-contaminated	2.0 mg/m ³	0				
	5	1622 - 0721	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100609-NWH-PSC1	Archived		
	6	1646 - 0745	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100609-NWH-AM6	Archived		
							100609-NWH-PDS	Archived		
							100609-NWH-PGS	Archived		
10/7/2009	2	0807 - 1707	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100709-WH-PSC2	Archived		
	3	0729 - 1529	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100709-WH-AM3	0.193	Daily Analysis	
	4	0818 - 1734	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0807 - 1706	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100709-WH-PSC1	<0.076	Daily Analysis	
	6	0818 - 1718	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100709-WH-AM6	Archived		
							100709-WH-PDS	<0.063	Daily Analysis	
							100709-WH-PGS	Archived		
10/7/2009	3	1533 - 0632	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100709-NWH-AM3	Archived		
NWH	4	1725 - 0725	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0		Archived		
	5	1726 - 0726	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100709-NWH-PSC1	Void		Blank display and battery failure
	6	1737 - 0737	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100709-NWH-AM6	Archived		
							100709-NWH-PDS	Archived		
							100709-NWH-PGS	Archived		
10/8/2009	2	0752 - 1652	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100809-WH-PSC2	Archived		
	3	0642 - 1642	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100809-WH-AM3	<0.051	Daily Analysis	
	4	0757 - 1657	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0753 - 1652	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100809-WH-PSC1	<0.055	Daily Analysis	
	6	0749 - 1649	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100809-WH-AM6	Archived		
							100809-WH-PDS	<0.057	Daily Analysis	
							100809-WH-PGS	Archived		
10/8/2009	3	1643 - 0343	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100809-NWH-AM3	<0.034	Dust Trak battery failed	
NWH	4	1743 - 0743	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1740 - 0740	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	100809-NWH-PSC1	Archived		
	6	1737 - 0737	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100809-NWH-AM6	Archived		
							100809-NWH-PDS	Archived		
							100809-NWH-PGS	Archived		
10/9/2009 to 10/12/09	3	1158-0557, 1724-0724	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	100909-NWH-AM3	<0.016	Dust Trak battery failed, sample from 10/9/09 analyzed	
NWH	4	1320 - 0719	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0	101109-NWH-AM3	Archived		
	5	1315 - 0814	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	HV-SC-1009-101209	Archived		
	6	1305-1805, 1831-0730	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	100909-NWH-AM6	Archived		
							101109-NWH-AM6	Archived		
							100909-NWH-PDS	Archived		
							100909-NWH-PGS	Archived		
							101109-NWH-PDS	Archived		
							101109-NWH-PGS	Archived		
10/12/2009	2	0821 to 1821	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101209-WH-PSC2	Archived		
	3	0740 - 1640	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101209-WH-AM3	<0.052	Daily Analysis	
	4	0817 - 1817	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0820 - 1819	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101209-WH-PSC1	<0.050	Daily Analysis	
	6	0836 - 1836	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101209-WH-AM6	Archived		
							101209-WH-PDS	<0.069	Daily Analysis	
							101209-WH-PGS	Archived		
10/12/2009	3	1731 - 0631	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101209-NWH-AM3	Archived		
NWH	4	1850 - 0750	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1847 - 0746	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101209-NWH-PSC1	Archived		
	6	1842 - 0742	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101209-NWH-AM6	Archived		
							101209-NWH-PDS	Archived		
							101209-NWH-PGS	Archived		

TABLE 5
MARJOL BATTERY SITE
REAL-TIME AIR MONITORING AND COLLOCATED PAM SUMMARY
4TH QUARTER 2009

Date	AM-#	Time (test -1)	Location	Waste Type	Action Level	Number of Hourly Average Exceedences	PAM ID	PAM Result (ug/m3)	Reason for Analysis	Reason for Void
10/13/2009	2	0807 - 1707	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101309-WH-PSC2	Archived		
	3	0717 - 1517	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101309-WH-AM3	<0.077	Daily Analysis	
	4	0802 - 1702	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0803 - 1703	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101309-WH-PSC1	<0.058	Daily Analysis	
	6	0825 - 1625	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101309-WH-AM6	Archived		
							101309-WH-PDS	<0.055	Daily Analysis	
						101309-WH-PGS	Archived			
10/13/2009 NWH	3	1615 - 0715	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101309-NWH-AM3	Archived		
	4	1706 - 0706	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1707 - 0807	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101309-NWH-PSC1	Archived		
	6	1717 - 0817	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101309-NWH-AM6	Archived		
							101309-NWH-PDS	Archived		
							101309-NWH-PGS	Archived		
10/14/2009	2	0821 - 1821	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101409-WH-PSC2	Archived		
	3	0740 - 1640	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101409-WH-AM3	<0.049	Daily Analysis	
	4	0817 - 1817	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0820 - 1819	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101409-WH-PSC1	<0.066	Daily Analysis	
	6	0836 - 1836	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101409-WH-AM6	Archived		
							101409-WH-PDS	<0.048	Daily Analysis	
						101409-WH-PGS	Archived			
10/14/2009 NWH	3	1754 to 0654	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101409-NWH-AM3	Archived		
	4	1845 to 0745	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1846 to 0746	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101409-NWH-PSC1	Archived		
	6	1855 to 0755	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101409-NWH-AM6	Archived		
							101409-NWH-PDS	Archived		
							101409-NWH-PGS	Archived		
10/15/2009	2	0821 - 1821	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101509-WH-PSC2	Archived		
	3	0740 - 1640	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101509-WH-AM3	<0.085	Daily Analysis	
	4	0817 - 1817	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0820 - 1819	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101509-WH-PSC1	<0.059	Daily Analysis	
	6	0836 - 1836	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101509-WH-AM6	Archived		
							101509-WH-PDS	<0.067	Daily Analysis	
						101509-WH-PGS	Archived			
10/15/2009 NWH							101509-NWH-CA	Archived		
							101509-NWH-PSC1	Archived		
							101509-NWH-H	Archived		
							101509-NWH-PDS	Void		Flow Fault
							101509-NWH-PGS	Archived		
10/16/2009 to 10/18/09 NWH							101609-NWH-H	Archived		
							HV-SC-1016-101909	Archived		
							101609-NWH-CA	Archived		
							101609-NWH-PDS	Archived		
							101609-NWH-PGS	Archived		
10/18/2009 NWH							101809-NWH-CA	Archived		
							101809-NWH-H	Archived		
							101809-NWH-PDS	Archived		
							101809-NWH-PGS	Archived		
10/19/2009	2	0823 - 1723	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101909-WH-PSC2	Archived		
	3	0733 - 1633	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101909-WH-AM3	<0.055	Daily Analysis	
	4	0819 - 1719	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0823 - 1723	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101909-WH-PSC1	<0.052	Daily Analysis	
	6	0835 - 1734	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101909-WH-AM6	Archived		
							101909-WH-PDS	0.099	Daily Analysis	
						101909-WH-PGS	Archived			
10/19/2009 NWH	3	1721 - 0621	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	101909-NWH-AM3	Archived		
	4	1813 - 0713	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1814 - 0714	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	101909-NWH-PSC1	Archived		
	6	1827 - 0727	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	101909-NWH-AM6	Archived		
							101909-NWH-PDS	Archived		
							101909-NWH-PGS	Archived		

TABLE 5
MARJOL BATTERY SITE
REAL-TIME AIR MONITORING AND COLLOCATED PAM SUMMARY
4TH QUARTER 2009

Date	AM-#	Time (test -1)	Location	Waste Type	Action Level	Number of Hourly Average Exceedences	PAM ID	PAM Result (ug/m3)	Reason for Analysis	Reason for Void
10/20/2009	2	0809 - 1609	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102009-WH-PSC2	Archived		
	3	0718 - 1418	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102009-WH-AM3	<0.066	Daily Analysis	
	4	0804 - 1603	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0808 - 1608	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102009-WH-PSC1	<0.080	Daily Analysis	
	6	0818 - 1518	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102009-WH-AM6	Archived		
							102009-WH-PDS	<0.065	Daily Analysis	
						102009-WH-PGS	Archived			
10/20/2009 NWH	3	1514 - 0614	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102009-NWH-AM3	Archived		
	4	1622 - 0722	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1622 - 0722	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102009-NWH-PSC1	Archived		
	6	1610 - 0710	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102009-NWH-AM6	Archived		
							102009-NWH-PDS	Archived		
							102009-NWH-PGS	Archived		
10/21/2009	2	0804 - 1804	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102109-WH-PSC2	Archived		
	3	0653 - 1652	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102109-WH-AM3	<0.050	Daily Analysis	
	4	0809 - 1809	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0804 - 1804	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102109-WH-PSC1	<0.071	Daily Analysis	
	6	0759 - 1759	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102109-WH-AM6	Archived		
							102109-WH-PDS	<0.052	Daily Analysis	
						102109-WH-PGS	Archived			
10/21/2009 NWH	3	1718 - 0618	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102109-NWH-AM3	Archived		
	4	1814 - 0714	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1815 - 0715	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102109-NWH-PSC1	Archived		
	6	1823 - 0723	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102109-NWH-AM6	Archived		
							102109-NWH-PDS	Archived		
							102109-NWH-PGS	Archived		
10/22/2009	2	0807 - 1807	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102209-WH-PSC2	Archived		
	3	0654 - 1654	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102209-WH-AM3	0.052	Daily Analysis	
	4	0810 - 1810	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0805 - 1805	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102209-WH-PSC1	<0.068	Daily Analysis	
	6	0801 - 1801	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102209-WH-AM6	Archived		
							102209-WH-PDS	<0.062	Daily Analysis	
						102209-WH-PGS	Archived			
10/22/2009 NWH	3	1729 - 0628	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102209-NWH-AM3	Archived		
	4	1841 - 0741	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1839 - 0738	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102209-NWH-PSC1	Archived		
	6	1836 - 0735	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102209-NWH-AM6	Archived		
							102209-NWH-PDS	Archived		
							102209-NWH-PGS	Archived		
10/23/2009	2	0756 - 1656	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102309-WH-PSC2	Archived		
	3	0636 - 1435	West of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102309-WH-AM3	0.068	Daily Analysis	
	4	0801 - 1701	West of CA, downwind of CA	mine spoils / cont. surface soil	2.0 mg/m ³	0	102309-WH-AM4	Archived		
	5	0752 - 1652	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102309-WH-PSC1	0.079	Daily Analysis	
	6	0744 to 1743	East of CA, upwind of site activities	non-contaminated	0.094 mg/m ³	0				
							102309-WH-PDS	<0.050	Daily Analysis	
						102309-WH-PGS	Archived			
						102309-WH-PLR	<0.051	Daily Analysis		
10/23/2009 NWH							102309-NWH-H	Void		Flow Fault
							102309-NWH-CA	Void		Fell off of monitor into mud
							102309-NWH-PDS	Void		Flow Fault
							102309-NWH-PGS	Void		Flow Fault
							102309-NWH-PLR	Void		Flow Fault
10/25/09 to 10/26/09 NWH	3	0828 - 0728	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102509-NWH-AM3	Archived		
	4	0941 - 0741	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0942 - 0741	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	HV-SC-1023-102609	Archived		
	6	0936 - 0735	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102509-NWH-AM6	Archived		
							102509-NWH-PDS	Archived		
							102509-NWH-PGS	Archived		

TABLE 5
MARJOL BATTERY SITE
REAL-TIME AIR MONITORING AND COLLOCATED PAM SUMMARY
4TH QUARTER 2009

Date	AM-#	Time (test -1)	Location	Waste Type	Action Level	Number of Hourly Average Exceedences	PAM ID	PAM Result (ug/m3)	Reason for Analysis	Reason for Void
10/26/2009	2	0820 - 1620	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102609-WH-PSC2	Archived		
	3	0731 - 1531	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102609-WH-AM3	<0.063	Daily Analysis	
	4	0818 - 1618	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0820 - 0720	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	1	102609-WH-PSC1	<0.067	Daily and Exceedance	
	6	0832 - 1632	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102609-WH-AM6	Archived		
							102609-WH-PDS	0.106	Daily Analysis	
						102609-WH-PGS	Archived			
10/26/2009 NWH	3	1551 - 0650	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102609-NWH-AM3	Archived		
	4	1658 - 0757	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1720 - 0720	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102609-NWH-PSC1	Archived		
	6	1653 - 0753	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102609-NWH-AM6	Archived		
							102609-NWH-PDS	Archived		
							102609-NWH-PGS	Archived		
10/27/2009	2	0821 - 1521	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102709-WH-PSC2	Archived		
	3	0738 - 1438	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102709-WH-AM3	<0.070	Daily Analysis	
	4	0815 - 1515	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0819 - 1519	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102709-WH-PSC1	<0.088	Daily Analysis	
	6	0834 - 1534	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102709-WH-AM6	Archived		
							102709-WH-PDS	<0.071	Daily Analysis	
						102709-WH-PGS	Archived			
10/27/2009 - 10/30/2009 NWH	3	1508-0707, 0758-0658	East of Area H, Downwind of Area H	mine spoils / cont. surface soil	0.094 mg/m ³	0	102709-NWH-AM3	Archived		
	4	1555 - 0754	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0	102909-NWH-AM3	Void		Battery
	5	1556 - 0655	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	102709-NWH-PSC1	Archived		
	6	1609-0809, 0858-0658	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	102909-NWH-PSC1	Archived		
							102709-NWH-AM6	Archived		
							102909-NWH-AM6	Archived		
						102709-NWH-PDS	Archived			
						102709-NWH-PGS	Archived			
						102909-NWH-PDS	Archived			
						102909-NWH-PGS	Archived			
10/30/2009	2	0755 - 1455	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	103009-WH-PSC2	Archived		
	4	0801 - 1501	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0751 - 1451	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	103009-WH-PSC1	<0.070	Daily Analysis	
	6	0747 - 1446	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	103009-WH-AM6	Archived		
							103009-WH-PDS	<0.102	Daily Analysis	
							103009-WH-PGS	Archived		
10/30/2009-11/02/2009 NWH	4	1511 - 0910	West of CA, upwind of site	non-contaminated	2.0 mg/m ³	0				
	5	1510 - 0909	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	HV-SC-1030-110209	Archived		
	6	1521 - 0820	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	103009-NWH-AM6	Archived		
							110109-NWH-AM6	Archived		
							103009-NWH-PDS	Void		Flow Fault
							103009-NWH-PGS	Archived		
						110109-NWH-PDS	Archived			
						110109-NWH-PGS	Archived			
11/2/2009	3	0822 - 1522	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110209-WH-PSC2	Archived		
	4	0922 - 1621	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0923 - 1623	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110209-WH-PSC1	<0.097	Daily Analysis	
	6	0916 - 1616	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110209-WH-AM6	Archived		
							110209-WH-PDS	<0.076	Daily Analysis	
							110209-WH-PGS	Archived		
11/2/2009 NWH	4	1645 - 0745	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1645 - 0745	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110209-NWH-PSC1	Archived		
	6	1642 - 0742	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110209-NWH-AM6	Archived		
							110209-NWH-PDS	Archived		
							110209-NWH-PGS	Archived		

TABLE 5
MARJOL BATTERY SITE
REAL-TIME AIR MONITORING AND COLLOCATED PAM SUMMARY
4TH QUARTER 2009

Date	AM-#	Time (test -1)	Location	Waste Type	Action Level	Number of Hourly Average Exceedences	PAM ID	PAM Result (ug/m3)	Reason for Analysis	Reason for Void
11/3/2009	3	0741 - 1541	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110309-WH-PSC2	Archived		
	4	0736 - 1536	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0739 - 1539	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110309-WH-PCS1	<0.085	Daily Analysis	
	6	0837 - 1637	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110309-WH-AM6	Archived		
							110309-WH-PDS	<0.099	Daily Analysis	
							110309-WH-PGS	Archived		
11/3/2009 NWH	4	1555 - 0655	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1558 - 0657	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110309-NWH-PCS1	Archived		
	6	1658 - 0858	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110309-NWH-AM6	Archived		
							110309-NWH-PDS	Archived		
							110309-NWH-PGS	Archived		
11/4/2009	3	0758 - 1458	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110409-WH-PSC2	Archived		
	4	0753 - 1453	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0755 - 1455	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110409-WH-PCS1	<0.093	Daily Analysis	
	6	0805 - 1505	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110409-WH-AM6	Archived		
							110409-WH-PDS	<0.072	Daily Analysis	
							110409-WH-PGS	Archived		
11/4/2009 NWH	4	1528 - 0728	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1529 - 0729	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110409-NWH-PCS1	Archived		
	6	1523 - 0723	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110409-NWH-AM6	Archived		
							110409-NWH-PDS	Archived		
							110409-NWH-PGS	Archived		
11/5/2009	2	0852 - 1752	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110509-WH-PSC2	Archived		
	4	0743 - 1643	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0746 - 0645	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110509-WH-PCS1	<0.053	Daily Analysis	
	6	0738 - 1638	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110509-WH-AM6	Archived		
							110509-WH-PDS	<0.073	Daily Analysis	
							110509-WH-PGS	Archived		
11/5/2009 NWH	4	1728 - 0728	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0746 (11/05/09) - 0645 (11/06/09)	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110509-NWH-PCS1	Void		Blank display and battery died
	6	1724 - 0724	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110509-NWH-AM6	Archived		
							110509-NWH-PDS	Archived		
							110509-NWH-PGS	Archived		
11/6/2009	2	0844 - 1644	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110609-WH-PSC2	Archived		
	4	0743 - 1543	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0737 - 1537	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110609-WH-PCS1	<0.057	Daily Analysis	
	6	0728 - 1528	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110609-WH-AM6	Archived		
							110609-WH-PDS	<0.076	Daily Analysis	
							110609-WH-PGS	Archived		
11/6/2009-11/9/2009 NWH	4	1624 - 0723	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1622 - 0721	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	1	HV-SC-1106-110909	0.003	Exceedance	
	6	1617 - 0716	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110609-NWH-AM6	Archived		
							110609-NWH-PDS	Archived		
							110609-NWH-PGS	Archived		
11/9/2009	2	0909 - 1808	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	110909-WH-PSC2	<0.096	Exceedance, recording malfunction	
	4	0812 - 1212	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110909-WH-AM4	Archived		
	4	1303 - 1703	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0800 - 1700	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	1	110909-WH-PSC1	<0.062	Daily and exceedance	
	6	0753 - 1253	East of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	6	1300 - 1600	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	110909-WH-PDS	Archived		
							110909-WH-PGS	Archived		
11/9/2009 NWH	4	1706 - 0705	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	1707 - 0706	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	1	110909-NWH-PCS1	<0.038	Exceedance	
	6	1659 - 0659	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	1	110909-NWH-AM6	<0.035	Exceedance	
							110909-NWH-PDS	Archived		
							110909-NWH-PGS	Archived		

TABLE 5
MARJOL BATTERY SITE
REAL-TIME AIR MONITORING AND COLLOCATED PAM SUMMARY
4TH QUARTER 2009

Date	AM-#	Time (test -1)	Location	Waste Type	Action Level	Number of Hourly Average Exceedences	PAM ID	PAM Result (ug/m3)	Reason for Analysis	Reason for Void
11/10/2010	1	1106 - 1706	East of Area B, downwind of sediment removal	mine spoils / cont. surface soil	0.094 mg/m ³	0	111009-WH-AM1	Archived		
	2	0907 - 1707	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	2	111009-WH-PSC2	<0.060	Exceedance	
	4	0805 - 1605	West of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
	5	0759 - 1558	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	1	111009-WH-PSC1	<0.065	Exceedance	
	6	0749 - 1549	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	1	111009-WH-AM6	<0.081	Exceedance	
							111009-WH-PDS	<0.060	Daily Analysis	
						111009-WH-PGS	Archived			
11/10/2009	1	1754 - 0754	East of Area B, downwind of sediment removal	mine spoils / cont. surface soil	0.094 mg/m ³	0	111009-NWH-AM1	Archived		
	NWH	1648 - 0748	West of CA, upwind of site	non-contaminated	2.0 mg/m ³	0				
	5	1645 - 0744	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111009-NWH-PSC1	Archived		
	6	1640 - 0739	East of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	111009-NWH-AM6	Archived		
							111009-NWH-PDS	Archived		
							111009-NWH-PGS	Archived		
11/11/2009	1	0851 to 1851	West of Area B, downwind of sediment removal	mine spoils / cont. surface soil	0.094 mg/m ³	0	111109-WH-AM1	Archived		
	2	0808 to 1807	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111109-WH-PSC2	Archived		
	4	0756 to 1756	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	111109-WH-AM4	Archived		
	5	0802 to 1802	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111109-WH-PSC1	<0.060	Daily Analysis	
	6	0819 to 1719	East of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
							111109-WH-PDS	<0.054	Daily Analysis	
						111109-WH-PGS	Archived			
						111109-WH-PLR	<0.055	Daily Analysis		
11/11/2009	4	1806 - 0806	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	111109-NWH-AM4	Archived		
	NWH	1810 - 0810	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111109-NWH-PSC1	Archived		
	6	1758 - 0758	East of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
							111109-NWH-PDS	Archived		
							111109-NWH-PGS	Archived		
							111109-NWH-PLR	Archived		
11/12/2009	2	0819 - 1618	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111209-WH-PSC2	Archived		
	4	0808 - 1608	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	111209-WH-AM4	Archived		
	5	0815 - 1615	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111209-WH-PSC1	<0.070	Daily Analysis	
	6	0824 - 1624	East of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
							111209-WH-PDS	<0.097	Daily Analysis	
							111209-WH-PGS	Archived		
						111209-WH-PLR	<0.061	Daily Analysis		
11/12/2009	4	1703 to 0803	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	111209-NWH-AM4	Archived		
	NWH	1656 to 0755	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111209-NWH-PSC1	Archived		
	6	1652 - 0752	East of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
							111209-NWH-PDS	Archived		
							111209-NWH-PGS	Archived		
							111209-NWH-PLR	Archived		
11/13/2009	2	0933 - 1533	South of CA, Additional Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111309-WH-PSC2	Archived		
	4	0847 - 1547	West of CA, downwind of CA	mine spoils / cont. surface soil	0.094 mg/m ³	0	111309-WH-AM4	Archived		
	5	0843 - 1543	South of CA, Sulphur Creek monitoring	mine spoils / cont. surface soil	0.094 mg/m ³	0	111309-WH-PSC1	<0.094	Daily Analysis	
	6	0837 - 1537	East of CA, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
							111309-WH-PDS	<0.093	Daily Analysis	
							111309-WH-PGS	Archived		
						111309-WH-PLR	<0.074	Daily Analysis		
11/13/09 - 11/16/09							HV-SC-1113-111609	Archived		
11/17/2009			Weekly, Perimeter Fence at Delaware St.					111709-WH-PDS	<0.063	
			Weekly, Perimeter Sulphur Creek					111709-WH-PSC1	<0.061	
11/20/09 - 11/23/09								HV-SC-1120-112309	Archived	
11/23/2009			Weekly, Perimeter Fence at Delaware St.					112309-WH-PDS	<0.023	
			Weekly, Perimeter Sulphur Creek					112309-WH-PSC1	<0.023	
11/30/2009			Weekly, Perimeter Fence at Delaware St.					113009-WH-PDS	<0.096	
			Weekly, Perimeter Sulphur Creek					113009-WH-PSC1	<0.062	
12/4/2009			Weekly, Perimeter Fence at Delaware St.					120409-WH-PDS	<0.065	
			Weekly, Perimeter Sulphur Creek					120409-WH-PSC1	<0.066	
12/11/2009			Weekly, Perimeter Fence at Delaware St.					121109-WH-PDS	Archived	
			Weekly, Perimeter Sulphur Creek					121109-WH-PSC1	Archived	
12/22/2009	1	0902 to 1502	West of the CA, downwind of sediment removal	mine spoils / cont. surface soil	0.094 mg/m ³	0	122209-WH-AM1	Archived		
	2	0857 to 1457	Eastern tip of the CA, downwind of mixing cell for sediment stabilization.	mine spoils / cont. surface soil	0.094 mg/m ³	0	122209-WH-AM2	Archived		
	6	0908 to 1408	West of the Sediment Basin, upwind of site activities	non-contaminated	2.0 mg/m ³	0				

TABLE 5
MARJOL BATTERY SITE
REAL-TIME AIR MONITORING AND COLLOCATED PAM SUMMARY
4TH QUARTER 2009

Date	AM-#	Time (test -1)	Location	Waste Type	Action Level	Number of Hourly Average Exceedences	PAM ID	PAM Result (ug/m3)	Reason for Analysis	Reason for Void
12/22/2009	1	1503 to 0803	West of the CA, downwind of sediment removal	mine spoils / cont. surface soil	0.094 mg/m ³	0				
NWH	2	1457 to 0757	Eastern tip of the CA, downwind of mixing cell for sediment stabilization.	mine spoils / cont. surface soil	0.094 mg/m ³	0				
	6	1507 to 0807	West of the Sediment Basin, upwind of site activities	non-contaminated	2.0 mg/m ³	0				
Legend										
UW	Up Wind									
DW	Down Wind									
N,S,E,W	North, South, East, West		¹ Refer to Daily Field Report for notes on time inconsistency							
NWH	Non-Working Hours									
PAM	Personnel Air Monitor									
PSC	Perimeter Sulphur Creek									
PDS	Perimeter Delaware Street									
PGS	Perimeter Grove Street									
PLR	Perimeter Lackawanna River									
H	Area H									
CA	Containment Area									
NOTES:										
1. Non-working hour PAM samples are identified by the date the sample started. Example - a sample run from the evening of 9/19 to morning of 9/20 is labelled as 9/19.										
2. PAM samples voided due to inability to record flow, the filter becoming wet or muddy, and/or mechanical failure.										
3. Half-hour averages were collected during real-time monitoring through September 21, 2008. Hourly averages of real-time monitoring began September 22, 2008.										
4. Real-time air monitors and collocated PAMs were set up at the indicated location in anticipation of upwind work activities. However, as work activities did not occur in the area associated with the monitor, real-time air monitoring was not conducted.										
5. High-volume air monitoring equipment was used in lieu of PAMs during non-working hour weekend monitoring.										



ATTACHMENTS PROVIDED ON CD

Fourth Quarter 2009 Ambient Air Monitoring Report
Fourth Quarter 2009 Lackawanna River Sediment Sampling
Throop Borough Council Meeting Minutes
Construction Documents
 Approved Submittals
 Construction Schedules
 Daily QA Reports
 Daily QC Reports
 Meeting Minutes
 Monitoring Results
 Basin Discharge Monitoring
 Dust Monitoring Working Hours
 Dust Monitoring Non-Working Hours
 Perimeter Air Monitoring
 Perimeter Air Monitoring Non-Working Hours
 PADEP Perimeter Air Monitoring
 Work Area Monitoring for Lead
 Work Area PAM Worksheets
 Photographs
 Confirmation Sampling
 Weather Data
 Disposal and Recycling
 Top of Unsolidified Waste Sketches
 Solidification Test Results
 Off-Site Verification Sampling
 Permits