November 9, 2012

Gary Rudholm, Senior Planner
SANTA CLARA COUNTY
70 West Hedding Street
San Jose, CA 95110

RE: 2012 SMARA MINE INSPECTION DRAFT
CPO FILE 2250-13-66-09PAM (PERMANENTE ROAD)
PERMANENTE QUARRY, 91-43-0004
CUPERTINO, CALIFORNIA

Dear Mr. Rudholm:

This letter report summarizes the findings of PMC's annual Surface Mining and Reclamation Act (SMARA) site inspection of the Permanente Quarry in Cupertino, CA (Mine ID #91-43-0004) conducted on September 6 and 7, 2012. PMC was retained by Santa Clara County to assist County staff with the annual SMARA mine inspection and to provide written documentation of our observations, issues of concern and recommendations.

The 2012 annual SMARA inspection was conducted for 12 hours; 8 hours on September 6, 2012 and 4 hours in the morning of September 7, 2012. In attendance, along with myself, were Greg Knapp as representative of the Lehigh Southwest Cement Company, and Marina Rush (Planner III), Jim Baker (County Geologist), and Ron Chitwood (Senior Construction Inspector) from the Santa Clara County Planning and Development Department (County).

The County Board of Supervisors approved a Reclamation Plan Amendment (RPA) for Permanente Quarry on June 26, 2012. Eighty-nine Conditions of Approval (COAs) are applied to the amended reclamation plan that incorporate both SMARA and non-SMARA requirements as well as mitigation and monitoring measures identified under CEQA.

The mine was active during the inspection. However, the Rock Plant was not operating, and therefore placement of washout fines was temporarily suspended. Mining was ongoing in the North Quarry. Overburden materials were being placed against the toe of the western quarry high wall. Placement of overburden material in the East Material Storage Area was temporarily suspended. The mine's entrance is located near latitude 37.321036^0 and longitude -122.086107^0. The weather during the inspection was clear and warm.

The disturbed acreage during the 2012 inspection was approximately 620 acres out of the 1,268.6 acres included in the RPA. The RPA identifies nine (9) specific areas within the mining boundary: 1) North Quarry, 2) West Material Storage Area (WMSA), 3) East Material Storage Area (EMSA), 4) Crusher/Support area, 5) Surge Pile, 6) Rock Plant, 7) South Quarry Exploration Area, 8) Permanente Creek Restoration Area treatment areas (PCRA), and 9) Buffer Areas. Figure 3.3-1 of the RPA provides a map that shows the general location of each mining area.

Two areas that were not inspected at this time were the 599.3 acres of the Buffer Areas, and the 19.5 acres of the South Quarry Exploration Area. The Buffer Areas are no-disturbance areas surrounding the active mining areas. The South Quarry Exploration Area wasn't inspected because a large tree blocked

the access road. Ron Chitwood inspected the South Quarry Exploration Area last year and will include the area in this year's pre-winter inspection.

BACKGROUND

In January 2007, the operator submitted an application for the RPA to the County. A detailed geologic report was required of the mine operator following receipt of the 2007 application. The geology report was completed and a revised application was submitted in July 2011. The 2011 revised application was the basis for the June 26, 2012 RPA. The RPA is designed to address mining activity over the next 18 years with an end date of 2030. The 2012 RPA has three phases of reclamation that coincide with the completion of mining and reclamation of the EMSA in Phase I; backfilling of the North Quarry with WMSA overburden in Phase 2; and final reclamation grading and re-vegetation in Phase 3.

With the approval in 2012 of the RPA, the final reclamation of the mine has changed from what was approved in the 1985 Reclamation Plan. In some areas, this change is significant. The previous reclamation work done in portions of the north facing slopes of the WMSA will now be removed during Phase 2 as this overburden stockpile is excavated and then material placed as backfill in the North Quarry. The RPA now includes the PCRA, which has seven (7) restoration subareas within the creek that have been disturbed by previous mining activities. Reclamation work in the PCRA will begin in Phase I, but will continue into Phases 2 and 3 based on access to the subareas and overall site reclamation and mining phases. Section 3.19 of the RPA describes the general reclamation work that will be done in the seven PCRA subareas and RPA Figure 3.19-0 shows the general locations of the subareas. Reclamation in the PCRA will also be overseen by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) and likely other federal and state agencies, such as the Army Corp of Engineers, and California Department of Fish and Game. Lehigh is working with SFBRWQCB on a long-term creek restoration plan. When this plan is approved, along with any refinements made during the permitting process with other agencies, it will be implemented as part of the mine reclamation effort. The final approved reclamation measures for PCRA will not be less stringent than those now contained in RPA.

SITE CONDITIONS

This discussion of the mine's existing conditions is broken into sections based on the nine mining areas defined in the RPA. In addition, issues that apply to all or several parts of the mine site will be discussed under separate topics.

RPA Mining Areas

1. North Quarry.

Quarry operations were apparent during the 2012 inspection. In addition to drilling shot holes and mining excavation, work was being done to place overburden material along the south and western side of the pit (Photo 1). At the end of Phase I, when excavation in the North Quarry ceases, the RPA anticipates that approximately 12 million tons of overburden material generated by the ongoing quarrying will have been placed as backfill in the quarry. An additional 48 million tons of WMSA overburden will also be placed as quarry backfill. The current maximum depth of the pit was approximately 725 feet mean-sea-level (msl) (personal communication G. Knapp). The final reclaimed, after-backfilling elevation proposed for the quarry will be between 990 and 1,750 feet msl. The

maximum angle of the western backfill slopes is proposed at 2.5H:1.0V. The maximum overall angle of the quarry rock slopes is proposed at 1.0H:1.0V. The northeastern highwall will not be regraded as part of reclamation, while the eastern highwall will have final rock slopes from 2H:1V to 1H:1V (see 12-15-11 Engineering Drawing Details sheet 12 of 13). Quarry groundwater was not being pumped from the quarry pit to Pond 4A during the inspection (Photos 2 and 3). As part of the site's stormwater management, numerous rock checkdams have been placed along the haul roads. However, the rock material used for these checkdams was limestone. To mitigate the potential for selenium to leach, the operator indicated that the limestone check dams will be replaced with greenstone before this winter. The County staff should inspect these checkdams as part of the pre-winter inspection to document the limestone removal with greenstone replacement and that the structures will function properly.

The northern highwall of the pit has had three large rockslides, which are described in the RPA. No major new movement on these rockslides was observed during the 2012 inspection. The Mid-Pen Rockslide, extends approximately half-way down the highwall (center of Photo 4). The Scenic Easement Rockslide has a slope failure that extends down slope approximately as far as the Mid-Pen Rockslide (left side of Photo 1). This rockslide lowered the ridgeline contrary to the 1972 Ridgeline Protection Easement requirement. The largest slide, the Main Rockslide, appears to extend across most of the current height of the northwestern highwall (Photo 5).

A fourth apparent landslide occurs on the western side of the pit. This area of movement was noted by Golder and Associates in their November 2007 Slope Stability Evaluation report and may extend westward below the toe of the eastern slope of the WMSA overburden stockpile (Photo 1). The County's Geologist, Mr. James Baker, referred to this western landslide as the "Haul Road Slide." The placement of overburden backfill against the western toe of the North Quarry is intended to stabilize this slide.

2. West Material Storage Area (WMSA)

During the 2012 inspection, no overburden or topsoil material was being placed in the WMSA. When operation of the Rock Plant begins again, the operator will deposit washout fines in the WMSA rather than in the EMSA (personal communication, G. Knapp). The WMSA topsoil stockpile continues to be signed (Photo 6). Beginning around 2021 in Phase 2 of the RPA, approximately 48 million tons of overburden material including wash fines from the WMSA quarry will be placed in the North Quarry to help stabilize the western wall and raise the final floor elevation to approximately 990 feet msl. The northern boundary of the WMSA was observed to be delineated with surveyor lath and flagging (Photo 7)

Prior to the 2012 RPA, the 1985 Reclamation Plan allowed the overburden placed in the WMSA to remain in place with some final grading to create slopes at a gradient of 2.0H:1.0V or shallower. Recent grading and re-vegetation of the lower northern portions of the WMSA have been done to reduce the visual impact and control erosion (Photo 8). Portions of the current southern slopes of the WMSA abut a portion of the mine that had been considered pre-SMARA. The 2012 RPA includes grading of the upper portion of this area to increase final slope stability of the WMSA and allow for proper drainage (see RPA Figure 3.16-14).

Running across the pre-SMARA slopes south of the WMSA is an old unpaved mid-slope road that is not used in the current mining operations and functions like a drainage bench. A low point in this road causes concentrated runoff to discharge over the slope and appears to create a sedimentation problem at Permanente Creek. This condition was noted in the 2008 annual SMARA report, and during the 2009

SMARA inspection a number of large rocks were observed being placed in this outfall with the intention of mitigating the potential erosion and instability. This drainage outfall was observed during the 2012 inspection and appears to be performing as intended (Photo 9). During the 2012 inspection, deposition of fines on top of rock talus as observed west of the drainage outfall approximately one-third of the way down the slope (Photo 9), suggests that a small surficial slide occurred recently. The headscarp of this slope failure didn't extend into the mid-slope road/bench. The drainage outfalls along this roadway should continue to be monitored as part of the site's stormwater management plan as well as the area to the west, the likely source area for the recent small slide. County staff should inspect the roadway before the end of November to document proper drainage.

3. East Material Storage Area (EMSA)

Overburden material and washout fines were not being placed in the EMSA during the 2012 inspection. (The overburden material was being placed against the toe of the west side of the quarry pit and the inactivity of the Rock Plant resulted in no washout fines.) Signs identifying the topsoil storage area in the EMSA had not yet been installed; the mine operator indicated that this would be done the following week. County staff should check to see that the topsoil area is signed during the pre-winter site inspection.

Past practices for disposing of the overburden material in the EMSA was outside of the 1985 Reclamation Plan boundary. With the approval of the 2012 RPA, the EMSA now lies within the approved mining boundary. The 2012 RPA has specific requirements for the disposal of wash fines in the EMSA. (See RPA Attachment C, Section 4.5.1 and COA #70d.) Wash fines must be covered with a minimum of 25 feet of non-limestone material below the approved final reclamation elevation and be at least 30 feet horizontally from the final reclaimed slope face. The operator had the northern and eastern boundaries of the EMSA delineated with surveyor lath and flagging (Photos 10 and 11).

The operator has created a network of lined and unlined drainage ditches to convey stormwater runoff from the EMSA into holding ponds. During the 2012 inspection, these ditches appeared to be capable of functioning as intended. The lowermost stormwater pond is called Pond 30 (Photo 12), which discharges runoff through a culvert into Permanent Creek. During the 2010 inspection, the outfall of this pipe was observed to have caused the slope to erode. Since then, rock armoring was done to mitigate this erosion at the outfall, which was observed during the 2012 inspection (Photo 13). The rock materials that line the channels and ponds of the EMSA and the stormwater Pond 30 outfall are made of limestone. The operator indicated that this material would be removed and replaced with greenstone rock before this winter. County staff should inspect the channels, ponds and culvert outfall as part of the pre-winter site inspection to document the limestone removed and replacement is completed and that the structures will function properly.

4. Crusher/Support Area

The Crusher and Support Area lies east of the North Quarry, and contains the primary and secondary crushers and numerous conveyors that transport limestone rock either to the cement plant or to the Surge Pile/Rock Plant. The mine offices and maintenance support facilities are also part of this area. Reclamation of the Crusher and Support Area will begin in Phase 3, following the completion of mining in the North Quarry. No adverse conditions were noted in this area during the site visit. Some construction was going on in the mine office area. As with other mine areas, the County staff should inspect any drainage channels, ponds, and checkdams in the Crusher/Support Area as part of the pre-

winter site inspection to document the limestone removal and replacement and that the structures will function properly.

The conveyors and associated structures will be removed from this area during reclamation Phase 3. One feature that likely will need special consideration is the 500-foot west-to-east conveyor tunnel (Photo 14). Following the removal of the conveyor system, the tunnel should be closed off to prevent public access. The method of closure isn't specified in the RPA, but consideration should be given to the potential for wildlife inhabiting the tunnel. It is recommended that the wildlife protection and mitigation procedures already specified in the RPA and COAs be applied to the tunnel closure, with adaption as necessary.

5. Surge Pile

The Surge Pile is located between the North Quarry and the Rock Plant and provides a stockpile for aggregate materials processed in the plant (Photo 15). Material is conveyed to the Surge Pile after being partially crushed and transported to the Rock Plant as needed either by truck or conveyor. The Surge Pile partially overlies and buries the historic Permanente Creek bed. Sedimentation off of the Surge Pile is controlled by barrier berms along the now partially channelized creek (Photo 16). At the time of this inspection, no runoff from the Surge Pile or sedimentation from the pile to Permanente Creek was observed. The 2012 RPA requires that the Surge Pile area be reclaimed to pre-mining conditions. This reclamation work will be done during Phase 3.

6. Rock Plant

At the time of the inspection, the Rock Plant was not operating, but some equipment maintenance work was being done. The Rock Plant area has numerous stockpiles of processed aggregate along with the crushing, sorting and conveying equipment. Runoff from the area is directed to the northeast into Pond 17 located east of the access road in the area of the Rock Plant gate. At the time of this inspection, no runoff from the Rock Plant area or sedimentation to Permanente Creek was observed.

7. South Quarry Exploration Area

The South Quarry Exploration Area lies south of Permanente Creek and was disturbed as part of the evaluation of mineral resources for an area Lehigh calls the South Quarry. (No mineral extraction is approved by the County in this area at this time.) The South Quarry Exploration Area was not observed during this inspection due to a fallen tree across the access road that prevented access. Exploration activities have stopped and the access roads and drill pads have been seeded and erosion control measure put in place (personal communication, R. Chitwood). County staff will inspect the South Quarry Exploration Area for erosion control measure as part of this year's pre-winter inspection.

8. Permanente Creek Restoration Area (PCRA)

Permanente Creek flows eastward along the southern edge of the active quarrying area and north of the South Quarry Exploration Area. Disturbance of the creek by mining activities pre-date the 1976 SMARA legislation while some areas of disturbance continued post-1976. The 2012 RPA identifies seven (7) subareas along the creek and provides for area-specific restoration activities (see RPA Section 3.19 and Figure 3.19-10) with the intent that work will be implemented throughout mining Phases 1 to 3 (see RPA Table 11). Lehigh has submitted a Permanente Creek Long-Term Restoration Plan to the

SFBRWQCB and once this plan is approved it will be incorporated into the 2012 RPA by reference. Although the SFBRWQCB may require additional channel restoration actions, the 2012 RPA establishes the minimum reclamation for the PCRA. At the time of the 2012 inspection, several work products were due from Lehigh relating to the removal of limestone boulders that impact the creek and it's water quality (COAs #38 and #39). Lehigh has selected California Certified Engineering Geologist, Dave Bieber of Geocon Consultants, to identify the boulders for removal.

9. Buffer Areas

As discussed above, the Buffer Areas are considered "no disturbance" areas that surround the active mine. The RPA states that the Buffer Areas function to protect the Permanente Quarry from land use encroachment, and also to protect nearby land uses from the potentially adverse sights, sounds and other characteristics of mining. Figure 3.3-1 in the RPA shows the location of the Buffer Areas.

Separate Topics

Topsoil

In order to address the issue of the lack of topsoil for re-vegetation of the site, the operator established two topsoil storage areas, one within the WMSA and the other in the EMSA. The WMSA topsoil storage area has received materials in the past and is signed. The EMSA will be receiving material and the mine operator indicated signs identifying the topsoil storage area would be installed the week following the 2012 inspection.

Mined Land Boundary

In September 2011, the County Surveyor surveyed the stockpiled material in the WMSA and EMSA to determine whether the mine operator is in compliance with the maximum height conditions. County staff found that the tops of the stockpiles are in compliance with the maximum allowable height conditions for both areas. The County Surveyor will conduct another survey on or before November 16, 2012 to again verify that material placement in both the EMSA and WMSA are within the maximum allowable height. The 2012 RPA approval included a condition that the northern and eastern boundaries of the WMSA and EMSA be clearly staked and flagged (COA #22). Another condition of approval requires that the operator provide to the County every 24 months the surveyed coordinates of the limits of reclamation along with aerial photos (COA #23) to show where mining has occurred in the previous 24 months and what the topography will be at the end of the next 24 months. The aerial photos are to be flown at least biennially in June starting in 2013. In addition to aerial photo and topography surveys, the RPA requires that any limestone washout fines be covered with a minimum of 25 feet of overburden material and offset a minimum of 30 feet from the final reclaimed slope face (COA #70d.) Validation of this condition requires that the elevation of any washout fine deposits be surveyed. Either the operator or the County Surveyor should determine the elevation and location(s) of these fines whenever they are conducting a survey to verify that this condition is being met.

Stormwater and Water Quality

As directed by the SFBRWQCB, the operator has filed several Notice of Intent documents under the Sand and Gravel General NPDES permit, R2-2008-0011, with the intent that this general permit will function as an interim permit until an individual NPDES permit can be approved (see June 24, 2011

memorandum from SFBRWQCB to Lehigh). Non-stormwater discharges identified by the SFBRWQCB included the water collecting in the bottom of the north quarry. The facility is also under a previous Cleanup and Abatement Order No. 99-018 for discharges of concrete and other wastes into Permanente Creek. The SFBRWQCB also issued a Water Code Section 13267 Investigative Order for alleged unauthorized discharges to Permanente Creek, dated June 14, 2011. This order makes a request for the operator to file a Report of Waste Discharge under Water Code Section 13260, and clarifies some outstanding issues identified in the SFBRWQCB's previous letters and order to Lehigh. The operator is working with the SFBRWQCB to correct these water code violations. Lehigh should inform the County of any progress made in achieving compliance with the water code violations, and provide written copies of all correspondence, approval letters and permits, as soon as available.

Wildlife and Vegetation

The operator has also begun a series of re-vegetation test plots to evaluate various soil treatments and to determine what soil and seed combinations will be best for successful re-vegetation. One of these test plots is located in a flat area southeast of the WMSA, called the Yeager Site. A second re-vegetation test plot has been established on the north-facing slope in the EMSA to evaluate various soil treatments necessary for re-vegetation of slopes in this area. Test plots of different re-vegetation treatments in the EMSA also appear to be yielding good results. The mine operator as part of the annual report must submit to the County a re-vegetation status report prepared by a qualified biologist (COA #28).

The 2012 RPA approval included a number of conditions that cover wildlife and vegetation (COAs # 46 to #61). These conditions require that pre-disturbance surveys and setback buffers be implemented during critical time periods. Qualified biologists must conduct survey work. There are also conditions to prevent invasive species and Sudden Oak Death. Evaluation of compliance with wildlife and vegetation protections was not done as part of this inspection effort. The County indicated that either staff or another consultant would evaluate compliance with these conditions.

VIOLATIONS

With the approval of the RPA by the Santa Clara County Board of Supervisors on June 26, 2012, past SMARA violations were resolved. The operator continues to work with the SFBRWQCB to correct water quality violations and to obtain an approved remediation plan for Permanente Creek. The operator's efforts to correct water quality issues appear to be in compliance with SFBRWQCB orders and requirements, and therefore shouldn't be considered a violation of SMARA. During the 2012 inspection no new SMARA violations were noted.

AREAS OF CONCERN AND ISSUES TO MONITOR

1. Continue monitoring the WMSA and EMSA for stability and erosion control. Prior to this winter, replacement check dams, drainage channel armor and drainage outfalls should be inspected by the County. The mid-slope road south of the WMSA should be monitored for erosion control and instability. The drainage on the north side of the WMSA should continue to be monitored and modified, as necessary to prevent erosion.

2. Continue monitoring rockslides in North Quarry and the operator should notify the County if new landslides occur, or the existing rockslides enlarge, particularly further into the RPA. Monitor the western-slide area that may underlie the haul road.

3. The areas disturbed by exploration activities south of Permanente Creek should be inspected prior to the winter season to evaluate adequacy of erosion control measures and maintained as necessary.

4. The operator should continue to work with the SFBRWQCB and the County to correct the site conditions that resulted in the water quality violations, and provide to the County copies of documents that demonstrate or provide for compliance with the corrective actions. The County staff should periodically monitor compliance by the operator with the corrective measures included in the RPA.

FINANCIAL ASSURANCE

The operator submitted a revised financial assurance cost estimate (FACE) on July 26, 2012. PMC provided written comments to the County in a separate letter dated September 28, 2012. The County issued a letter to Lehigh on October 10, 2012, requiring a revised FACE by November 5, 2012. When the County certifies the FACE it will forward the calculations to OMR for its 45 day review.

CONCLUSIONS AND RECOMMENDATIONS

Permanente Quarry is in general compliance with SMARA, and is working with the SFBRWQCB to correct water quality problems and to obtain the proper discharge permit(s). The following tasks should be undertaken to control potential erosion and maintain slope stability on the site:

1. The perimeter slopes of the WMSA and EMSA rock storage piles should continue to be monitored for erosion control and modified, as necessary.

2. The mitigation measures implemented to control runoff from the road running mid-slope south of the WMSA should be monitored, and modified, as necessary.

3. The progress of the re-vegetation test plots should be reported at least annually to the County.

4. The drainage ditches constructed in the EMSA rock storage area should be monitored, cleaned out, and repaired as necessary.

5. Prior to this winter, all limestone check dams, drainage channel armor and drainage outfalls should be removed and replaced with non-limestone rock. The County staff should verify compliance.

6. The rock-armored outfall of the stormwater Pond 30 should be removed and replaced, then monitored and modified, as necessary.

7. The operator's geotechnical consultant should continue to monitor the long-term stability of the highwalls in the North Quarry, and the slope on the south side of the WMSA rock storage pile. The mine operator and geotechnical consultant should report to the County, as soon as possible, any changes in the stability of the mine slopes.

8. The locations of deposits of limestone washout fines in the EMSA should be surveyed to demonstrate that they will be buried as required by COA #70d.

9. The County should remain in contact with the SFBRWQCB to ensure that Lehigh has corrected the conditions that resulted in water quality violations. The mine operator should inform the County of any progress in that regard. As appropriate, corrective measures should be incorporated into the RPA.

10. When the PCRA remediation plan is approved by the SFBRWQCB and other permitting agencies, the plan should be incorporated into the RPA. Pending this plan's approval, the County should continue with implementing the PCRA mitigation measures and conditions that are part of the June 26, 2012 RPA approval.

LIMITATIONS

Our services are limited to providing professional opinions and recommendations made in accordance with generally accepted engineering geology principles and practices. No warranty, expressed or implied, of merchantability or fitness, is made or intended in connection with our work, by our proposal for consulting or other services, or by our oral or written reports or findings. Our services have been limited to review of the Reclamation Plan as provided by the County, review of previous available annual SMARA inspection reports, visual field inspections, discussions with the County and operator staff, and the preparation of this letter report.

If you have any questions, please feel free to contact me at (530) 750-7076 or e-mail me at kcustis@pmcworld.com.

Sincerely,
PMC

Kit H. Custis
Engineering Geologist – Hydrogeologist
PG 3942, CEG 1219, CHG 254
Expires 2/29/2014

KHC:kc:pa:tc

PMC 11_09_12 Permanente 2012 SMARA Inspection Report

2012 SMARA INSPECTION PHOTOS

Photo 1: North Quarry, southwest portion. Waste rock material being placed at toe of western slope. Potential "Haul Road Slide" in eastern slope of WMSA, center right of image. Dated September 6, 2012.

Photo 2: Looking east at lined Pond 4A, which receives water from the North Quarry. Pond outfall discharges to Permanente Creek to the right of image. Dated September 6, 2012.

Photo 3: Outfall area of Pond 4A, looking upstream at Permanente Creek. Blue flagging marks edge of riparian vegetation. Dated September 6, 2012.

Photo 4: Looking east at the North Quarry. Mid-Pen Rockslide in center of image, and Scenic Easement Rockslide in left side of image. Floor elevation of quarry at approximately 725 feet msl. Dated September 6, 2012

Photo 5: Looking northwest at Main Rockslide in North Quarry. Dated September 6, 2012.

Photo 6: Topsoil storage area in WMSA, looking north; note sign. Dated September 6, 2012.

Photo 7: WMSA northern slope looking northwest. Flagged wooden stakes mark northern boundary of mine reclamation area. Dated September 6, 2012.

Photo 8: Portion of re-vegetated north-facing slope of WMSA, looking east. A portion of this slope will be removed in Phase 2 to backfill of North Quarry. Dated September 6, 2012.

Photo 9: Rocked outfall in mid-slope bench on southern WMSA slope, looking southwest into Permanente Creek. Fines overlying rock talus in center of image look like recent slide deposits. Dated September 6, 2012.

Photo 10: Northern portion of EMSA, looking west. Flagged wooden stakes mark northern limits of mine reclamation area. Dated September 7, 2012.

Photo 11: Northern portion of EMSA, looking north. Flagged wooden stakes mark northern limits of mine reclamation area. Dated September 7, 2012.

Photo 12: Stormwater Pond 30 in EMSA, looking south at cement plant. Outfall drains to Permanente Creek. Rock armor will be replaced with non-limestone rock. Dated September 7, 2012.

Photo 13: Stormwater Pond 30 armored outfall. Runoff discharges to Permanente Creek. Rock armoring will be replaced with non-limestone rock. Dated September 7, 2012.

Photo 14: Eastern end of 500-foot long conveyor tunnel in Crusher/Support Area, looking west. The tunnel should be closed during reclamation following evaluation of wildlife impacts. Dated September, 2012.

Photo 15: Surge Pile looking northeast from north side of Permanente Creek. Dated September 6, 2012.

Photo 16: Barrier at toe of Surge Pile to prevent discharge to Permanente Creek, looking southeast. Dated September 6, 2012.