State of California
DEPARTMENT OF CONSERVATION
OFFICE OF MINE RECLAMATION
MRRC-1 (4/97) Page 1 of 5 (Rev. 07/13)

SURFACE MINING INSPECTION REPORT

(See reverse side of each form page for completion instructions)

I. Mine Name (As Shown on Approved Reclamation Plan)	Inspection Date:	CA MINE ID#
Permanente Quarry	9/26 & 9/27, 2013	91- 43-0004

II. Mine Operator		Telephone
Lehigh Hanson, Inc.		(408) 996-4190 - office
Onsite Contact Person		**Telephone**
Dan Zacharisen - Quarry Manager		(408) 206-4926 - cell
Mailing Address		
24001 Stevens Creek Blvd.		
City	**State**	**ZIP Code**
Cupertino	CA	95014
E-mail Address (optional)		
Dan.Zacharisen@LehighHanson.com		

III. Designated Agent		Telephone
Greg Knapp		(925) 244-6570
Mailing Address		
12667 Alcosta Blvd., Suite 400, Bishop Ranch 15		
City	**State**	**ZIP Code**
San Ramon	CA	94583
E-mail Address (optional)		
Greg.Knapp@hanson.com		

IV. SMARA Lead Agency Name (City, County, BCDC, or SMGB)		
Santa Clara County		
Inspector		**Telephone**
Kit Custis, consultant, and Marina Rush		(408) 299-5784
Title	**Organization**	
Planner III	Department of Planning and Development	
Mailing Address		
70 W. Hedding Street, East Wing, 7th Floor		
City	**State**	**ZIP Code**
San Jose	CA	95110
E-mail Address (optional)		

V. Does the operation have:	P	NR	No	Yes
A Permit to Mine	☐	☐	☑	Permit # - Start and Expiration Dates: vested
Vested Right to Mine	☑	☒	☐	Year of Lead Agency determination: February 8, 2011
A Reclamation Plan	☑	☒	☐	RP# 2250-13-66-84P Date Approved March 1985
Reclamation Plan Amendment	☑	☒	☐	RP Amendment # (as applies): 2250-13-66-10P(M1) Date Approved or Status of Amendment: June 26, 2012

Has the Operator filed a Mining Operation Annual Report (Form MRRC-2) this Year? Check One: ☑Yes ☐No **Year of Most Recent Filed Annual Report:** 2012

VI. Is this Operation on Federal Land? Check One: If "Yes," Provide One or Both of the Federal Mine Land Identification Numbers Below:	☐Yes ☑No
California Mining Claim Number (CAMC#): N.A	**Latitude/Longitude at Mine Entrance (Decimal Degrees):** 37.321036°,-122.086107°
U.S. Forest Service or BLM Identification Number (Plan of Operations #) : N.A.	**Status of Plan of Operations (Current/Expired/In Process):** N.A.

DISTRIBUTION: Lead Agency sends copies of Inspection Notice & completed MRRC-1 to operator, operator's designated agent, BLM or USFS (if required) & retains original.

INSTRUCTIONS FOR COMPLETING SURFACE MINING INSPECTION REPORT

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This report is intended to comply with the requirements of California's Surface Mining and Reclamation Act (SMARA – Public Resources Code Sections §§ 2710 et seq., and the associated California Code of Regulations found in Title 14, division 2, beginning at § 3500, hereinafter respectively "PRC" or "CCR") and specifically PRC § 2774(b) and CCR § 3504.5 for operations located on private land and/or partly or solely on Bureau of Land Management (BLM) and U.S. Forest Service (USFS) lands (Title 43, parts 3500, 3600, and 3800 of the Code of Federal Regulations). A Memorandum of Understanding between the U.S. Department of Interior, BLM; U.S. Department of Agriculture, USFS; the State of California, Department of Conservation; and the State Mining and Geology Board (SMGB), discusses implementation of SMARA on Federal lands in California that are under the jurisdiction of the BLM and/or the USFS.

As required by PRC § 2774(b) and CCR § 3504.5(g), Lead Agencies shall file an Inspection Notice that includes a statement regarding compliance with SMARA, a copy of this Surface Mining Inspection Report (MRRC-1) and any other supporting documentation with the Department within 30 days of completion of the inspection. The Lead Agency shall also forward a copy of the Inspection Notice, MRRC-1, and any supporting documentation to the operator.

BLOCK I: Enter the name of the Mining Operation, the date of the inspection, and the California Mine ID number.

BLOCK II: Enter the name of the Mine Operator, mailing address, phone number, name, and email address (optional) of the person to serve as the onsite contact.

BLOCK III: Enter the name, mailing address, phone number, and email (optional) of the Designated Agent who, under PRC § 2772(c)(1) and 2207(a)(1), will serve as a contact for any follow-up correspondence or discussions regarding the inspection or noted violations.

BLOCK IV: For "Lead Agency," enter the name of the certified SMARA Lead Agency that is conducting this inspection. Acceptable entries include the name of the city, county, Bay Conservation and Development Commission (BCDC), or State Mining and Geology Board (SMGB). For "Organization," enter the name of the agency, firm or other organization that employs the inspector.

BLOCK V: Check the appropriate boxes.

P	Pending (on appeal or awaiting approval by Lead Agency)
NR, No, Yes	Not required for this operation at the time this inspection was completed
	No
	Yes, supply information

Note: Where appropriate, to aid in determining when the lead agency recognized that the operation has vested mining rights, inspectors are advised to review older agency correspondence, minutes of lead agency hearings, including agendas and staff reports associated with approvals of any kind related to the mining operation.

BLOCK VI: Indicate if the operation is on federal Land; if operation is on federal land, include a California Mining Claim Number and/or a BLM/USFS Identification Number and Plan of Operations Number, if applicable. Give the status of the BLM/USFS Plan of Operations, as indicated. Give the latitude and longitude at the mine entrance in decimal degrees.

DISTRIBUTION INSTRUCTIONS:

One copy of the inspection notice and this completed Inspection Report (all pages) shall be given to the Mine Operator and the operator's designated agent by the lead agency (PRC Section 7374(b).

The Lead Agency must retain the original copy of this Inspection Report and submit one copy of this Inspection Report, along with an original inspection report notice (PRC Subsection 2774(b)), within 30-days of the completion of the inspection, to:

Department of Conservation
Office of Mine Reclamation
801 K St MS 09-06 Sacramento, CA 95814-3529

If any part of the operation inspected is on BLM or USFS land, one copy of this Inspection Report should be forwarded to the appropriate BLM or USFS office.

SURFACE MINING INSPECTION REPORT

VII. Financial Assurance		Inspection Date: 9/26 & 9/27, 2013	CA MINE ID#: 91- 43-0004	
Type of Financial Assurance Mechanism(s)	**Financial Assurance Mechanism Number(s)**	**Amount of Mechanism**	**Date of Expiration**	**Date of Lead Agency Approval of Mechanism**
5 bonds posted: 1&2. Travelers Casualty & Surety Company 3. Liberty Mutual Insurance Company 4. Lexon Insurance Company 5. Fidelity & Deposit Company Bond	1. Bond #64S104790142BCM 2. Bond #280331 3. Bond #022033624 4. Bond #1066515 5. Bond #09054091 Note: see additional discussion on page 5 of 5 of this report.	$7,570,047.00 $540,001.00 $18,963,259.00 $1,691,220.00 $22,627,308.00	none none none none none	1. 10-19-07 2. 08-18-10 3. 02-03-12 4. 01-28-11 5. 01-09-13
	Total Amount of Mechanism(s)	$51,391,835.00		

■ **Financial Assurance Mechanism Pending Review by Lead Agency? If yes, provide date submitted/explanation and amount of pending mechanism:**

Yes, see below

Has there been a change of operator since last inspection? If yes provide the date of notice.	**If yes, has the new operator posted a Financial Assurance Mechanism?**	**Does new operator's Notice of Change include a statement of responsibility for reclamation?**
☐Yes ☑No **Date of Change:** N/A	☐Yes ☐No **If not, describe status of new operators Financial Assurance Mechanism:** N/A	☐Yes ☐No

Date and Amount of Most Recent Approved Financial Assurance Cost Estimate:	**Date:** January 7, 2012 **Amount:** $53,740,531.00
■ **Financial Assurance Cost Estimate Pending Review with Lead Agency?**	**Date Submitted/Explanation/Amount of pending estimate:** The operator submitted a revised FACE on September 9, 2013. Santa Clara County is reviewing the calculations; the County will forward a certified 2013 FACE to OMR for review, as required under SMARA.
☐ **Financial Assurance Cost Estimate Appealed by Operator?**	**Date Submitted to State Mining and Geology Board or Lead Agency for Appeal/Explanation:** N/A
☐ **Other?**	N/A

INSTRUCTIONS FOR COMPLETING SURFACE MINING INSPECTION REPORT

BLOCK VII: Type of Financial Assurance Mechanism(s): Fill in the type of mechanism(s) that are on file. PRC § 3803 and SMGB Financial Assurance Guideline number 10 describe Surety Bonds, Trust Funds, or Irrevocable Letters of Credit as acceptable financial assurance mechanisms for non-governmental entity operators. For surface mining operations owned and operated by state and local government entities, Surety Bonds, Trust Funds, Irrevocable Letters of Credit, Pledges of Revenue, and Budget Set Aside are acceptable financial assurance mechanisms.

State the Financial Assurance Mechanism(s) document number(s). State the dollar amount of each Financial Assurance Mechanism(s) currently on file. State the date of expiration of the Financial Assurance Mechanism(s) currently on file. State the date of approval for the most recent lead agency approved Financial Assurance Mechanism(s) on file. State the total dollar amount of mechanisms held for reclamation.

Indicate if any Financial Assurance Mechanisms are pending review by the lead agency and the date and amount of submittal to the lead agency.

Indicate if there has been a change of operator of record since the last inspection and, if so, note the date the change occurred and whether the new operator has signed any document acknowledging reclamation responsibility under the approved reclamation plan and if the new operator has posted a Financial Assurance Mechanism. If a replacement Financial Assurance Mechanism has not been posted, indicate the status of the new operator's replacement Financial Assurance Mechanism. Per PRC § 2773.1(c) and Guideline number 19 of the SMGB's Financial Assurance Guidelines, when operatorship is transferred, "the original financial assurance must remain in effect until the lead agency has approved, following department review, the replacement assurances provided by the successor operator."

The Financial Assurance amount must be adjusted and approved annually to account for new lands disturbed by surface mining operations and lands to be disturbed in coming year, inflation, and reclamation of lands accomplished in accordance with the approved Reclamation Plan (PRC § 2773.1(a)(3) and SMGB Financial Assurance Guideline #16). In order to determine what adjustments, if any, are appropriate to the Financial Assurance Mechanism amount, each mine operator must submit annually a revision of the written Financial Assurance Cost Estimate to the Lead Agency (PRC § 3804(c)). Provide the date of the operator's most recent revision of the Financial Assurance Cost Estimate to the Lead Agency and where appropriate, provide a status of the pending Financial Assurance Cost Estimate. Provide the date and amount of the most recently approved Financial Assurance Cost Estimate.

Also indicate if the Financial Assurance Cost Estimate is under appeal to the lead agency or whether it has been appealed to State Mining and Geology Board as described in PRC § 2770(e).

Use the Financial Assurance "Other" and "Explanation" blocks to provide any other pertinent information regarding the status of Financial Assurance(s). If the operation does not have a sufficient Financial Assurance Cost Estimate and/or Financial Assurance Mechanism, explain in detail.

SURFACE MINING INSPECTION REPORT

VIII. Non-SMARA facility operations conditions solely of local concern (e.g. hours of operation) do not need to be noted here. See Instructions for Block VIII on reverse side of page. **[Use separate sheet(s) where necessary. Refer to item numbers below]**		CA MINE ID # **91-** 43-0004	
Potential Reclamation Plan Requirements:	List Reclamation Plan Requirements (Recommended to be filled out prior to field inspection)	Note Site Conditions and Compliance Issues (Note additional comments on Page 5 as necessary)	VN?
1) General Information a) Permitted Mineral Product(s) b) Approved Production Amount (Annual/Gross) c) End Date of Operations Per RP d) Permit end date e) End Use	a) limestone cement and aggregate b) 45 million tons total c) Dec. 31, 2030; RPA Table 2 d) N/A (vested mine) e) opens space - hillside Fig 2.3-2	Mine quarry and rock plant operating in accordance with 2012 RPA. See additional comments in attached inspection letter.	☐
2) Boundaries a) Property Boundary b) Permit Boundary c) Rec. Plan Boundary (RPB) d) Setbacks	a) RPA-Fig 1.0-2 - 3,510 ac b) RPA-Fig 1.0-2 - 1,238.6 ac c) RPA-Fig 1.0-2 & 1.0-4 - 1,238.6ac d) variable, see RPA-Fig 3.3-1	Property boundaries in compliance withe 2012 RPA.	☐
3) Slopes – Grading a) Fill Slopes – Note Condition of: i) Slopes – Working (max/current) ii) Slopes – Reclaimed iii) Compaction b) Cut Slopes – Note Condition of: i) Slopes – Working (max./current) ii) Slopes – Reclaimed	Overburden: a,i) 1.5H to 1V to 2H:1V a,ii) EMSA-2H:1V;WMSA-2.5H:1V N.Pit backfill - 2.5H:1V a,iii) COA 25, 70, b,i) Limestome and greenstone bedrock b,ii) N.Quarry-lmst-1H:1V-overall;50geg-interbench; greenstone 38 to 50 deg. c,iii) reclaimed same as working; RPA 3.17.2	Quarry slopes in compliance with 2012 RPA. WMSA and EMSA slopes are in compliance, but will be regrade for final reclamation.	☐
4) Erosion Control a) BMPs b) Grading c) Vegetation	a) Oct. 22, 2012 SWPPP; RPA 3.9 b) RPA Appendix F - Chang, 12/12/2012 c)RPA Appendix B - WRA 12/2011; RPA 3.18, 3.19; COAs 68 to 70; 78 to 81	BMPs and stormwater management program is active and winterization is proceeding. County staff will inspect again prior to this winter.	☐
5) Ponds a) Design – Function b) Capacity (area/depth/volume) c) Maintenance	a, b & c) RPA Table 8, RPA-Appendix F; 12/22/2012 SWPPP; COA 33, 83	Ponds functioning and clean out for this winter.	☐
6) Stream & Wetland Protection a) Buffers (distance to channel) b) Berms (distance/length/height) c) Best Management Practices d) Drainage e) Grading & Slopes f) Stockpiles g) Stream Diversions	a to g) RPA 3.18, 3.19; RPA-Appendix D, Table 2; RPA Fig. 3.3-1, COAs 57 to 61	Permanente Creek restoration plan being developed for gov't agency approval in accordance with settlement agreement.	☐
7) Sensitive Wildlife & Plant Protection a) List Species b) Protection Measures	a)RPA 2.9; RPA 3.17.1; RPA-Appendix B; b)RPA-Appendix D-50' setback	Wildlife surveys conducted prior to east highwall mining. Ongoing protection measures being implemented as per RPA & COAs.	☐

INSTRUCTIONS FOR COMPLETING SURFACE MINING INSPECTION REPORT

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BLOCK VIII: INSTRUCTIONS FOR EACH DATA COLUMN:

Potential Reclamation Plan Requirements (Column 1)**:** Under CCR § 3504.5(f), "Inspections may include, but shall not be limited to the following: the operation's horizontal and vertical dimensions, volumes of materials stored on the site; slope angles of stock piles, waste piles and quarry walls; potential geological hazards; equipment and other facilities; samples of materials; photographic or other electronic images of the operation; any measurements or observations deemed necessary by the inspector or the lead agency to ensure the operation is in compliance with Public Resources Code Chapter 9." Column 1 provides a list of items that may be included in the approved reclamation plan, either expressly or by reference as described in PRC § 2772(d), which may include conditions of approval, other permit requirements and supplementary documents, including environmental documents, prepared for the project pursuant to Division 13 (commencing with Section 21000).

It is not expected that all reclamation plans will include each item of Section VIII, or be limited to the items listed. Items in Column 1 that are not operative requirements in the reclamation plan may not need to be addressed by the inspection. Operative reclamation plan requirements not listed in Items 1 through 12 may be listed in Item 13, under "Other Reclamation Plan Requirements."

Reclamation Plan Requirements (Column 2)**:** Prior to field inspection, it is recommended that the inspector review the approved reclamation plan and any amendments, as well as any other documents included by reference, including conditions of approval, other permit requirements and supplementary documents, such as environmental documents prepared for the project pursuant to Division 13 (commencing with Section 21000) that specifically relate to reclamation of the mine site. The most recently approved Financial Assurance Cost Estimate and any pending or ongoing enforcement actions should also be reviewed. Conditions of approval that relate to facility operations solely of local concern, such as hours of operation, noise, and dust control are not subject to the inspection.

Column 2 is intended to provide the inspector a place to match any items noted in Column 1 with those items included in the approved reclamation plan either expressly or by reference as described in PRC § 2772(d), which may include conditions of approval, other permit requirements and supplementary documents, including environmental documents prepared for the project pursuant to Division 13 (commencing with § 21000). Also note any Interim Management Plan (IMP) requirements where the mine is subject to an IMP pursuant to PRC § 2770(h).

Indicate the source document for the reclamation plan requirements at the end of the entry in parenthesis; i.e. (COA) (POO) (EIR) (WDR) (SWPPP), etc. Conditions of approval that relate to facility operations solely of local concern, such as hours of operation, noise, and dust control should not be included in Column 2. If items listed in Column 1 of Section VIII of the form are not included in the reclamation plan or other documents included by reference, write not applicable or "NA" in Column 2.

Specific reclamation requirements may not apply to an operation at the time of inspection, but they are important to be aware of to ensure current activity at the site will not prohibit reclamation in accordance with the approved reclamation plan.

A copy of the Surface Mining and Reclamation Act of 1975 and 1993 SMGB regulations may be obtained at http://www.conservation.ca.gov/omr/lawsandregulations/Pages/SMARA.aspx.

Site Conditions and Compliance Issues (Column 3)**:** Describe current site conditions and compliance issues noted for both operating and reclaimed surfaces that pertain to the reclaimed condition of the mining site. Block IX is provided for additional space to describe site conditions and/or compliance issues. Attach additional sheets as necessary. Evaluations of slope stability and engineered compaction should be prepared by qualified professionals only. PRC § 2774(b)) states "The lead agency may cause an inspection to be conducted by a state licensed geologist, state licensed civil engineer, state licensed landscape architect, or state licensed forester, who is experienced in land reclamation and who has not been employed by a surface mining operation within the jurisdiction of the lead agency in any capacity during the previous 12 months."

VN? (Column 4)**:** Use this box to indicate if violations were noted for any of the specific items under the corresponding item group heading (e.g., Boundaries, Slopes-Grading, etc.) during field inspection of the site. Enter number of violations in the box.

SURFACE MINING INSPECTION REPORT

VIII. Non-SMARA facility operations conditions solely of local concern (e.g. hours of operation) do not need to be noted here. See Instructions for Block VIII on reverse side of page. **[Use separate sheet(s) where necessary. Refer to item numbers below]**		CA MINE ID # **91-** 43-0004	
Potential Reclamation Plan Requirements:	List Reclamation Plan Requirements (Recommended to be filled out prior to field inspection)	Note Site Conditions and Compliance Issues (Note additional comments on Page 5 as necessary)	VN?
8) Soil/Overburden Stockpile Management a) Topsoil i) Location ii) Slope Stability iii) BMPs b) Overburden i) Location ii) Slope Stability iii) BMPs c) Topsoil Application i) Amendments ii) Depth iii) Moisture iv) Application Methods	RPA 2.6, 3.17.3.1; RPA-Fig 2.6-1 a&b,i) WMSA and EMSA; COA 26 a&b,ii) temp. angle of repose a&b, iii) 12/22/2012 SWPPP; COA 27 c,i) RPA 3.4, 3.10;RPA-Appendix B; c,ii) RPA-Appendix B c,iii)RPA-Appendix B c,iv) RPA-3.17.3	Additional topsoil storage areas in WMSA (1), and EMSA (2). BMPs in place for topsoils storage areas. All overburden and washout fines being placed in North Quarry. Soil/overburden stockpile management in compliance with 2012 RPA. See attached inspection report for more information.	☐
9) Revegetation a) Test Plots b) Species Mix c) Density d) Percent Cover e) Species Richness f) Protection g) Success Monitoring h) Invasive Species Control	a) RPA-3.17.3.3, RPA-Appendix B, RPA-Fig 2.9-1; COAs 28, 29, 77 b) RPA-Tables 3 to 6; c, d & e) RPA-Table 7; f) RPA-3.17.3.2; g) RPA-3.17.3.5; h) RPA-3.17.3.4	Final test plot report is being prepared. South Exploration area has been revegetated and being evaluated for success.	☐
10) Structures	RPA-3.20; COA 31	New crusher facility being constructed. New mine office structure completed.	☐
11) Equipment	RPA-3.20; COA 31	Several mine dump trucks being repaired or removed following vandalizm.	☐
12) Closure of Adits		Conveyor tunnel open at this time, will be closed during reclamation.	☐
13) Other Reclamation Plan Requirements	No limestone on surface; remove limestone from stormwater contact; water quality treat to remove selenium; reclaim PCRA	Limestone rock removed from drainage controls. Pilot test plants for mine water treatment are ongoing. Restoration plan for PCRA being prepared. ROWD submitted to SFBRWQCB for overall site NPDES permit. See attached inspection report for additional information.	☐

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SURFACE MINING INSPECTION REPORT

IX. List comments/description/sketches to support observations of mine site conditions, including violations. Where any violations are noted, list in numerical order, along with suggested corresponding corrective actions. Also describe preventative measures recommended by the inspector to avoid or remedy potential violations. Indicate if you have attached photos, sketches, and/or notice(s) of violation(s) or other documents to this form.
(Add additional sheets as necessary)

Refer to Attachment A, a report dated October 23, 2013, from Kit H. Custis, CEG 1219, CHG 254 of Pacific Municipal Consultants (PMC).

Financial Assurance Discussion:

Over the course of approximately five years the operator posted five bonds that collectively serve as the Financial Assurance for Permanente Quarry. The bonds include the following:

Travelers Casualty & Surety Company of America Surety Bond #64S104790142BCM ($7,570,047.00), Oct. 19, 2007;

Travelers Casualty and Surety Company of America Surety Bond #280331 ($540,001.00), Aug. 18, 2010;

Liberty Mutual Insurance Company Bond #022033624 ($18,963,259.00), Feb. 3, 2012;

Lexon Insurance Company Bond #1066515 ($1,691,220.00), Jan. 28, 2011; and,

Fidelity & Deposit Company Bond #09054091 ($22,627,308.00), Jan. 9, 2013. This bond was most recently increased to cover costs determined by the 2012 Financial Assurance Cost Estimate.

A new FACE has been submitted for review by Santa Clara County that indicates another increase is required. When the County completes its review of the FACE the County will forward the certified calculations to OMR for its mandated 45-day review.

Additional sheets/documents attached: ☑ Yes ☐ No

CA MINE ID #
91- 43-0004

Inspection Date:
9/26 & 9/27, 2013

Weather Code(s):
CR

Duration of Inspection: 11 hours over 2 days

Start Time: 9am/9:30am

End Time: 4pm/noon

Status of Mine Code(s):
OP

Status of Reclamation Code(s):
R - So. Exploration area

Approximate Acreage Under Reclamation:
19.5 acres

Approximate Acreage the lead agency has determined reclaimed in accordance with the approved reclamation plan: NONE

Approximate Total Disturbed Acreage:
669.2 ac of 1268.6 acres

Approximate Pre-SMARA Disturbed Acreage:
49.2 acres

Disturbed Acreage Identified in Most Recent Financial Assurance Cost Estimate:
639.6 acres

Previous Inspection Date (and Number of Violations then Noted):
Sept. 6 & 7, 2012; None

Violations Corrected? (explain in block to left)
None w/2012 RPA

Inspection Attendees and Affiliations:

Greg Knapp - Lehigh
Dan Zacharsen -Lehigh
Cliff Maddox - Lehigh
Jim Curtis - Lehigh
Marina Rush - SC County
Jim Baker - SC County
Steve Beam - SC County
Kit Custis - PMC

X. Number of Current Violations:	Inspectors Signature:	If inspector is a contractor for the lead agency give license type and number:
0	Date Signed:	

DISTRIBUTION: Lead Agency sends copies of Inspection Notice & completed MRRC-1 to operator, operator's designated agent, BLM or USFS (if required) & retains original.

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BLOCK IX

Inspectors may use the large open block for comments to describe violations, corresponding corrective actions, or preventative measure(s) suggested by the inspector to address noted violations or avoid potential violations, and to explain any limitations on the inspection conducted. The inspector can also use this space to describe the status of any pending or current enforcement actions. Separate violations that are the subject of existing enforcement actions from violations observed during the current inspection.

Enter California Mine ID Number and Date of Inspection.

Weather Codes: CR = Clear; CL = Cloudy; RN = Rain; SN = Snow; WD = Windy

For "Duration of Inspection," indicate the start and end times of the inspection (do not include travel time).

SMARA Status Codes (based on annual report and reported production under CCR § 3695, indicate the appropriate status code):

NP = Newly Permitted (surface mining operation not begun)
OP = Operation Not Idle (Per § 2727.1) or abandoned (Per §2770 (h)(6))
I = Idle (Per § 2727.1)
AB = Abandoned (Per § 2700 (h)(6))
NOP-NC = Not in Operation, Reclamation NOT Completed
NOP-C = Not in Operation, Reclamation Completed

If idle, indicate either the date operation became idle as defined by PRC Section 2727.1, the date an IMP was approved, or the status of any pending IMP.

Status of Reclamation Codes:

RN = Reclamation not begun
R = Reclamation in progress
P = Post reclamation monitoring
RC = Reclamation complete

Enter approximate acreage under reclamation (the number of acres actively being reclaimed in accordance with the approved reclamation plan).

Enter approximate acreage determined to be reclaimed in accordance with the approved reclamation plan by Lead Agency.

Enter approximate total disturbed acreage. This includes all acreage disturbed by the surface mining operation, as defined by PRC § 2729: "'Mined Lands' includes the surface, subsurface, and ground water of an area in which surface mining operations will be, are being, or have been conducted, including private ways and roads appurtenant to any such area, land excavations, workings, mining waste, and areas in which structures, facilities, equipment, machines, tools or other materials or property which result from, or are used in, surface mining operations are located." This should include acreage under reclamation that has not been determined to be reclaimed in accordance with the approved reclamation plan by the Lead Agency.

Enter the total number of acres within or adjacent to the disturbance area of the operation disturbed pre-SMARA (disturbance before January 1, 1976, that has not had mining related disturbance after January 1, 1976).

Enter the disturbed acreage identified in the most recent Financial Assurance Cost Estimate (i.e., the disturbed acreage that was used to calculate the most recent Financial Assurance Cost Estimate.

Enter the date of the previous lead agency inspection and number of violations noted during that inspection.

Attendees: Provide the names and affiliations of parties in attendance at the inspection.

BLOCK X:

Enter the number of violations noted during the inspection. Sign and date the Inspection Report. If the inspector is a consultant to the lead agency, include the inspector's certification (PE, PG, CEG, etc.) and license number, if applicable. The lead agency may cause an inspection to be performed by contracting with private consultants, specifically: state licensed geologist, state licensed civil engineer, state licensed landscape architect, or state licensed forester per § 2774(b).

November 4, 2013

Marina Rush, Planner III
SANTA CLARA COUNTY
70 West Hedding Street
San Jose, CA 95110

RE: 2013 SMARA MINE INSPECTION
CPO FILE 2250-13-66-09PAM (PERMANENTE ROAD)
PERMANENTE QUARRY, 91-43-0004
CUPERTINO, CALIFORNIA

Dear Ms. Rush:

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 26 and 27, 2013. 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 2013 annual SMARA inspection was conducted for 11 hours; 8 hours on September 26, 2013 and 3 hours in the morning of September 27, 2013. In attendance, along with myself, were Greg Knapp, Dan Zacharisen, Cliff Maddox and Jim Curtis as representative of the Lehigh Southwest Cement Company (Lehigh), and Marina Rush (Planner III), Jim Baker (County Geologist), and Steve Beam (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. The Rock Plant was operating and washout fines were being placed in the North Quarry. Mining was ongoing in the North Quarry mostly along the upper portion of the eastern highwall. 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 acreage disturbed by current mining activities during the 2013 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 and Table 1 lists the acreage.

One area that was not inspected at this time was the 599.3 acres of the Buffer Areas. The Buffer Areas are no-disturbance areas surrounding the active mining areas.

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 19 years with an end date of 2032. 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. Table 2 of the RPA lists the time intervals for each of the three mining phases.

The 2012 RPA changed the final reclamation of the mine 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. The PCRA reclamation activities approved in the RPA has seven (7) restoration subareas within the creek that have been disturbed by previous mining activities. A recent April 2013 settlement agreement between Lehigh and the Sierra Club requires that the design of the reclamation of Permanente Creek be revised and a new Conceptual Creek Restoration Plan be submitted to all pertinent agencies by October 7, 2013 and submittal of all necessary permit and approval applications to appropriate agencies by August 30, 2014. The settlement requires that creek restoration work be completed within two years of receipt of all necessary permits and approvals.

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 Wildlife. Lehigh is working with SFBRWQCB and other agencies 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 2013 inspection. In addition to drilling shot holes and mining excavation, work was being done to place overburden material along the south and western walls within 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). Mining of the upper portion of the eastern quarry was begun in the last year and final slopes have been cut in some areas (Photo 2).

As part of the settlement agreement with the Sierra Club a series of pilot test for treating the quarry groundwater discharge have been conducted this year. At the completion of the pilot tests, Lehigh will construct a treatment plant in the area of the mine office. Water will be pumped from the quarry to the treatment plant and then piped down to Pond 4A where it is discharged. Lehigh submitted a Report of Waste Discharge to the SFBRWQCB on November 30, 2011 for an NPDES Permit that will consolidate the current set of permits and covers all Permanente facility discharges to Permanente Creek. Lehigh anticipates that this NPDES permit will be approved by the SFBRWQCB in November 2013.

As part of the site's stormwater management, numerous rock checkdams have been placed along the haul roads. However, the rock material initially used for these checkdams was limestone. To mitigate the potential for selenium to leach, the operator replaced the limestone check dams with greenstone or other non-limestone rock (Photo 3).

The northern highwall of the North Quarry has had three large rockslides, which are described in the RPA. No major new movement on these rockslides was observed during the 2013 inspection. The Mid-Pen Rockslide that extended approximately halfway down the eastern highwall is being graded out as part of the mining (Photo 4). The Scenic Easement Rockslide has a slope failure that extends down slope approximately as far as the Mid-Pen Rockslide (Photo 5). 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 6).

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 (right center of 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 2013 inspection, no overburden material was being placed in the WMSA. All overburden is currently being placed in the North Quarry. A new topsoil material storage area was created just east of the existing topsoil storage area to take materials excavated with the eastward expansion of the quarry (Photo 7). Both of the WMSA topsoil stockpile continues to be signed. 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. Revegetation efforts along the northern WMSA was observed (Photo 8).

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). During Phase 2 of reclamation, the WMSA fill will be excavated down to an elevation that daylights at approximately the current contact between the native vegetation and the revegetated area seen in Photo 8.

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. In 2013 straw waddles and bales were added to this drainage outfall and it appears to be performing as intended (Photo 9). In 2012 and 2013 straw waddles and straw bales have been placed along the outer edge of several low points in this mid-slope road to capture potential sedimentation (Photo 10). During the 2013 inspection, deposition of fines on top of rock talus that were continued to be observed as in the 2012 inspection west of the drainage outfall approximately one-third of the way down the slope (Photo 11), suggests that a small surficial slide. The headscarp of this slope failure hasn't extended into the mid-slope road/bench. A series of silt fences has been placed along the toe of the southern WMSA pre-SMARA slope as part of stormwater management (Photos 11 and 12). Hydroseeding of the upper portions of the pre-SMARA slope above the mid-slope road were done in late 2012 (right side of Photo 12). The drainage outfalls along this roadway should continue to be monitored as part of the site's stormwater management. County staff should continue to observe the roadway before the end of November as part of the pre-winter inspection.

3. East Material Storage Area (EMSA)

Overburden material and washout fines were not being placed in the EMSA during the 2013 inspection. (The overburden material and the Rock Plant washout fines were being placed against the toe of the west side of the quarry pit (Photo 1). Signs have been placed at the one active EMSA topsoil storage area storage area (Photo 13). Two newly identified topsoil areas have been designated in the EMSA that lie adjacent to the active one. These areas have not yet been signed; the mine operator indicated that they would be signed. County staff should check to see that these additional EMSA topsoil areas are 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. This condition also requires that limestone rock not be present within the upper 25 vertical feet and 30 horizontal feet at the head of EMSA canyons.

The operator had the northern and eastern boundaries of the EMSA delineated with flagged surveyor lath. The County Surveyor re-surveyed the EMSA in January 25, 2013 to check that the grades don't

exceed what is permitted in the RPA. The EMSA elevations were found to be in general compliance with the maximum RPA grade of approximately 900 feet msl. Existing grade of an area on the northeastern side of the EMSA are higher than the final reclamation grade, points 737.9 ft and 658.8 feet, but not greater than the maximum 900 feet. This temporary height exceedence was authorized in the 2012 RPA on page 42. No new overburden is being placed in the EMSA. The EMSA will need to be re-contoured as part of final reclamation to create the approved slopes, benches and drainage structures.

The operator has created a network of lined and unlined drainage ditches to convey stormwater runoff from the EMSA into holding ponds. During the 2012-13 rainy season a slope failure occurred in a slope adjacent to the eastern end of the conveyor tunnel that deposited limestone rock in the upper portions of the drainage ditch that runs along the western edge of the EMSA (Photo 14). This material was removed, a series of sediment catch basins were created and the ditch cleaned out and relined with greenstone (Photos 15 and 16). Continued failure of the slope is anticipated, therefore periodic cleanout of the sediment catch basins is now part of the stormwater management plan. The EMSA drainage ditches were all relined with greenstone, a non-limestone rock, and they appeared to be capable of functioning as intended. The lowermost stormwater pond is called Pond 30 (Photo 17), which discharges runoff through a culvert into Permanent Creek. Rock armoring with greenstone was done to mitigate this erosion at the outfall of Pond 30 (Photo 18). County staff should inspect the channels, ponds and culvert outfall as part of the pre-winter site inspection to document 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. A new primary and secondary crusher was being constructed during the 2013 inspection (Photos 19 and 20). The new crushers will be connected to the existing conveyor system and the portion of the conveyor to the west will be removed (Photo 21). The drainage in the new crusher area will be directed to a sump and then pumped over to the North Quarry for treatment (personal communication G. Knapp). The slopes surrounding the new crushers will be hydroseeded before this winter. The County staff will inspect the new crusher area slopes and drainage control as part of the pre-winter site inspection.

The mine offices and maintenance support facilities are also part of this area. Reclamation of the Crusher and Support areas will begin in Phase 3, following the completion of mining and backfilling of the North Quarry. No adverse conditions were noted in this area during the site visit. 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 that the structures will function properly.

An upper bench area located north of the mine office had a stockpile of limestone rock that was sufficiently high as to be visible from the Town of Cupertino. County staff noted this material during the 2012 pre-winter site inspections and removal was required. During the 2013 inspection, the area of this limestone stockpile and found that it had been removed (Photo 22).

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. 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 23). 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. 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 back in limited operation. 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 (Photo 24). At the time of this inspection, runoff from the Rock Plant area was collecting in Pond 17 and after flowing through a series of rock baffles discharging by culvert into Permanente Creek (Photo 25). During normal operations, Pond 17 water is pumped to Pond 11 for use at the cement plant, but a tear in the liner of Pond 11 has reduced the pond's water holding capacity (personal communication G. Knapp). Once the liner is repaired cement plant use of Pond 17 water will resume.

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.) Portions of the South Quarry Exploration Area were observed during the 2013 inspection. A more detailed inspection was performed by County staff in 2012. 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). Areas inspected during 2013 were limited to roadways and drill pad accesses from the upper exploration roadway (see Figure 3.16-13 in RPA). The revegetation has been ongoing for approximately 5 years and appears to be functioning properly (Photos 26 to 29). The mine operator could seek closure of reclamation of the South Quarry Exploration Area after surveys to confirm the revegetation effort meets the RPA performance standard listed in Table 7.

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). A recent April 2013 settlement agreement between Lehigh and the Sierra Club requires that the design of the reclamation of Permanente Creek be revised and a new Conceptual Creek Restoration Plan be submitted to all pertinent agencies by October 7, 2013 and submittal of all necessary permit and approval applications to appropriate agencies by August 30, 2014. The settlement requires that creek restoration work be completed within two years of receipt of all necessary permits and approvals.

In 2013 Lehigh submitted several work products relating to the removal of limestone boulders that impact the creek and it's water quality (COAs #38 and #39), and began the work. Lehigh has selected California Certified Engineering Geologist, Dave Bieber of Geocon Consultants, to identify the boulders for removal. A report was prepared that documents potential the water quality impacts of the boulders in Permanente Creek (Geocon Consulting, August 2012). A supplemental letter from Lehigh, dated July 10, 2013, provided additional information on the potential impacts on sedimentation and hydraulic of the creek from boulder removal. This letter concluded that all but one boulder, #23, could remain in the creek area.

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 topsoil storage areas in both the WMSA and EMSA. The WMSA topsoil storage area occurs at two locations. The older location has stopped receiving material and the slopes have erosion controls inplace. The newer topsoil storage area is actively receiving material and has a silt fence at the toe to control sedimentation. Signs identify both the WMSA topsoil storage areas. In the EMSA three topsoils storage areas have been designated. Only one has received topsoil, the other two are for future storage. Only the active EMSA topsoil storage area is signed, but the operator has indicated that the other two areas will be signed. County staff will inspect to determine that these two topsoil storage areas are properly signed during the pre-winter site inspection.

Mined Land Boundary

In September 2011 and again on January 25, 2013, 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 2012 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.

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 were flown in June 2013 and copies submitted to the County.

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 10, 2011 and issued a revised order on June 27, 2013 (R2-2013-0005-A1). These orders 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. Lehigh has applied for a NPDES Permit that will consolidate existing permits and cover all Permanente facility discharges to Permanente Creek. The operator is working with the SFBRWQCB to investigate of water quality impacts from mining. Lehigh should inform the County of the results of these investigations and provide written copies of all correspondence, approval letters and permits, as soon as available.

Wildlife and Vegetation

The operator has conducted 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. These test plots have run for five years and the mine operator biologist is preparing a final report. The mine operator anticipates that the final test plot report will be submitted to the County by the end of 2013.

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. These survey were conducted prior to the expansion of mining into the eastern wall of the North Quarry. 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. Either County staff or their consultant will evaluate compliance with wildlife and vegetation 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 provide

permit applications, workplans, technical reports and monitoring reports that address water quality requirements for the mine waste rock, stormwater, groundwater and process waters. The SFBRWQCB has a web site where Lehigh Permanente documents can be found, http://www.waterboards.ca.gov/sanfranciscobay/water_issues/hot_topics/lehigh.shtml. During the 2013 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, condition of 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 operator should continue to work with the SFBRWQCB and the County to provide information required for compliance with water quality regulations. The operator should provide to the County copies of documents submitted to the SFBRWCB. The County should periodically assess how investigations being conducted for the SFBRWQCB will impact reclamation of the mine.

FINANCIAL ASSURANCE

The operator submitted a revised financial assurance cost estimate (FACE) on September 9, 2013. PMC will provide written comments to the County in a separate letter within 30 days of receipt. When the County certifies the 2013 FACE, it will forward the calculations to OMR for its 45 day review.

CONCLUSIONS AND RECOMMENDATIONS

Permanente Quarry is in compliance with SMARA, and is working with the SFBRWQCB on water quality requirements and discharge permits. 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 final report of the re-vegetation test plots should be submitted to the County.

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

5. The rock-armored outfall of the stormwater Pond 30 should be monitored and modified, as necessary.

6. 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.

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

8. The County should remain in contact with the SFBRWQCB regarding water quality investigations. The mine operator should inform the County when results of water quality investigations may impact reclamation of the mine.

9. 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.

10. The erosion control measure implemented along the slopes draining to Permanente Creek should be monitored and repaired as necessary.

11. The County should inspect the new primary and secondary crusher area for compliance with erosion and drainage requirements as part of the pre-winter inspection.

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 2/28/2014

KHC:kc:pa: Final_Permanente_2013_SMARA_Inspection_Report_PMC_11_04_13

2013 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, right of image. Floor elevation of quarry at approximately 725 feet msl. Dated September 26, 2013.

Photo 2: Upper portion of eastern highwall of North Quarry with slopes at final grade. First bench being cut to elevation at right side of photo. Dated September 26, 2013.

Photo 3: Check dams on WMSA haul road that were replaced with non-limestone materials, looking eastward. Dated September 26, 2013.

Photo 4: Looking northeast at the North Quarry. Mid-Pen Rockslide area at in center of image being removed by recent mining. Dated September 26, 2013

Photo 5: Looking northwest at Scenic Easement Rockslide in center of image. Dated September 26, 2013.

Photo 6: Looking west at Main Rockslide and WMSA. Dated September 26, 2013.

Photo 7: New topsoil storage area in WMSA, looking north. Sign and silt fence in foreground. Dated September 26, 2013.

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 26, 2013.

Photo 9: Rocked outfall in mid-slope bench on southern WMSA slope with straw waddles and bales, looking southwest into Permanente Creek. Dated September 26, 2013.

Photo 10: Straw waddles and bales at outfalls of mid-slope bench on southern slope of WMSA, looking looking west. Dated September 26, 2013.

Photo 11: Silt fencing on southern slope of WMSA below outfall in Photo 9. Note soil mixed with talus adjacent to silt fence may be result of past slide. Dated September 26, 2013.

Photo 12: Southern slope of WMSA with silt fencing, looking west up Permanente Creek. Dated September 26, 2013.

Photo 13: Topsoil storage area EMSA with sign and silt fence, looking west. Abandoned water tank at right side of image. Dated September 26, 2013.

Photo 14: Slope failure north of eastern end of 500-foot long conveyor tunnel in Crusher/Support Area, looking west. Sediment catch basins constructed above western perimeter drainage ditch in foreground. Dated September 26, 2013.

Photo 15: Sediment catch basin, greenstone rock weir and western perimeter drainage ditch in EMSA, looking northeast. Dated September 26, 2013.

Photo 16: Western perimeter drainage ditch in EMSA. Ditch cleaned out and greenstone rock placed in bottom, looking northeast. Dated September 26, 2013.

Photo 17: Pond 30 lowest pond in EMSA and drains into Permanente Creek, looking south at cement plant. Walls of pond and drainage ditch relined with greenstone. Dated September 26, 2013.

Photo 18: Pond 30 outfall to Permanente Creek, relined with greenstone. Dated September 26, 2013.

Photo 19: New primary crusher structure, looking west. Drainage from area will be collected and pumped into North Quarry for treatment before discharge. Dated September 26, 2013.

Photo 20: New secondary crusher pad area, looking northeast. Note straw waddles on slope. Slope will be hydroseeded before this winter. Dated September 26, 2013.

Photo 21: New primary and secondary crusher area, looking northeast. Looking at location where new crushers will tie into existing conveyor. Portion of convey to left of notch will be removed. Dated September 26, 2013.

Photo 22: Previous temporary limestone stockpile area at eastern edge of North Quarry and north of mine office area. Limestone material has been removed, looking southwest. Dated September 26, 2013.

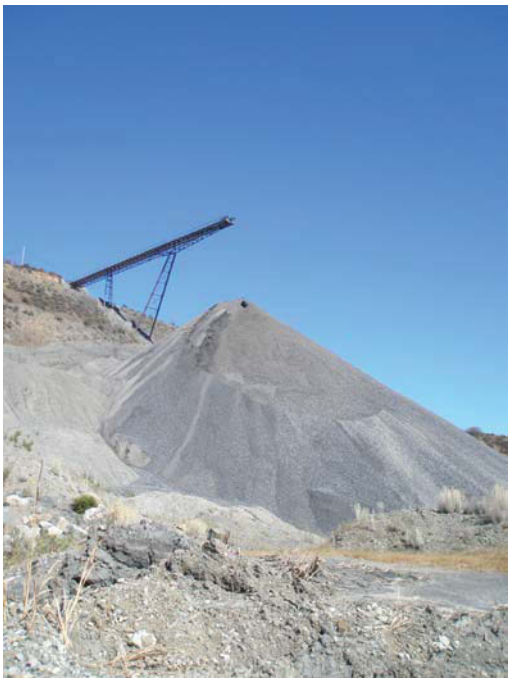

Photo 23: Surge pile, looking northeast from area of Pond 13B. Dated September 26, 2013.

Photo 24: Pond 17 collects runoff from Rock Plant, looking north. Dated September 26, 2013.

Photo 25: Pond 17 outfall to Permanente Creek, looking north. Dated September 26, 2013.

Photo 26: Re-vegetated drill roadway and pad in South Quarry Exploration near N37° 18.898', W122° 06.843', looking north at west side of quarry. Dated September 27 2013.

Photo 27: Re-vegetated drill roadway in South Quarry Exploration area near N37° 18.707', W122° 06.448', looking east. Dated September 27, 2013.

Photo 28: Re-vegetated drill pad in South Quarry Exploration area near N37° 18.670', W122° 06.457', looking south. Dated September 27, 2013.

Photo 29: Re-vegetated drill pad in South Quarry Exploration area near N37° 18.555', W122° 05.731', looking west. Dated September 27, 2013.

DEPARTMENT OF CONSERVATION

OFFICE OF MINE RECLAMATION

801 K STREET • MS 09-06 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 323-9198 • FAX 916 / 445-6066 • TDD 916 / 324-2555 • WEB SITE conservation.ca.gov

April 4, 2014

Ms. Marina Rush
Department of Planning and Development
County Government Center, East Wing, 7th Floor
County of Santa Clara
70 West Hedding Street
San Jose, CA 95110-1705

Dear Ms. Rush:

FINANCIAL ASSURANCE COST ESTIMATE FOR HANSON PERMANENTE CEMENT QUARRY (CA MINE #91-43-0004), COUNTY OF SANTA CLARA

The Office of Mine Reclamation (OMR) received a financial assurance cost estimate (cost estimate) in the amount of $54,723,295.00 for the Hanson Permanente Cement Quarry on February 27, 2014. This mine is operated by Lehigh Southwest Cement Company. The County of Santa Clara is the Surface Mining and Reclamation Act of 1975 (SMARA) lead agency for this surface mining operation. The lead agency submitted this cost estimate pursuant to Public Resources Code (PRC) Section 2774. That section provides that the Department of Conservation has 45 days from receipt of the cost estimate to prepare written comments.

OMR Review and Comments

OMR notes the lead agency has found the cost estimate is adequate for reclamation. In this regard, OMR will rely upon that determination and so will not be providing additional comments regarding adequacy.

Thank you for submitting the cost estimate for OMR review. Maintaining an adequate Financial Assurance Mechanism (FAM) for mining operations is a critical requirement of SMARA. An adequate FAM helps assure the public will not bear the cost of reclamation in the event of mine site abandonment or financial incapability by the operator.

Status of Financial Assurance

Review of OMR records indicates the current financial assurance on file for this mine is $51,391,835.00. When the lead agency receives an updated financial assurance mechanism, please forward a copy to OMR within 30 days at the address below.

Attn: Christina Reese
Office of Mine Reclamation
Department of Conservation
801 K Street, MS 09-06
Sacramento, CA 95814-3529

If you have any questions, please contact Ms. Christina Reese at (916) 324-4026. I may also be contacted at (916) 324-0716.

Sincerely,

Tom Ferrero, Manager
Compliance Unit

County of Santa Clara

Department of Planning and Development
Planning Office

County Government Center, East Wing, 7th Floor
70 West Hedding Street
San Jose, California 95110-1705
(408) 299-5770 FAX (408) 288-9198
www.sccplanning.org

February 21, 2014

Candace Mapel
California Department of Conservation
801 K Street MS 09-06
Sacramento, CA 95814

SUBJECT: **Financial Assurance Cost Estimate for the Permanente Quarry**
County Planning Office File #2250-13PAM
State Mine ID# 91-43-0004

Dear Ms. Mapel:

Enclosed is the annual financial assurance cost estimate (FACE) calculations for the Permanente Quarry (Mine ID #91-43-0004) for the 45-day review period by OMR. The County received a revised FACE cost estimate, dated January 31, 2014, and hereby certifies the calculations are in keeping with the Financial Assurance Guidelines published by the State Mining and Geology Board.

The 2013 Permanente Quarry FACE is $54,723,295.00 is enclosed with this letter. The County hereby submits the FACE for review by the State Office of Mine Reclamation pursuant to SMARA §2774© and with SMGB Reclamation Regulation §3805.

If you have any questions regarding this matter, you call me at (408)299-5784.

Sincerely,

Marina Rush

Marina Rush, Planner III
cc. Greg Knapp, Lehigh Hanson

Lehigh Hanson
HEIDELBERGCEMENT Group

Gregory Knapp
Director Environmental Affairs, Region West
12667 Alcosta Blvd , San Ramon, CA 94583
(925) 244-6570

January 31, 2014

Ms. Marina Rush
Planner III
County of Santa Clara
Department of Planning and Development
Planning Office
70 West Hedding Street
San Jose, CA 95110

RE: Response to a January 6, 2014 comment letter on the August 2013 Financial Assurance Cost Estimate (FACE) for the Hanson Permanente Quarry State Mine ID# 91-43-0004

Dear Ms. Rush:

In response to a comment letter drafted on January 6th we are providing a revised Financial Assurance Cost Estimate (FACE) as well as this cover letter that details how comments were addressed in the revised FACE. In addition to incorporating comments made by Santa Clara County into the revised FACE, increases in labor rates and changes in site conditions were considered in the revision of the FACE.

1. *The August 2013 FACE provides as attachments several cost estimates as documentation. Two of these cost estimates have not been updated from the 2012 FACE, Attachment 1 and 4. The estimated costs in these two attachments are significant. For example, Attachment 1 provide costs for the conveyor system needed to backfill the quarry, which the 2013 FACE estimates will cost approximately 39 million dollars. Appendix 4 provides costs for erosion control planning materials and labor, which for the 2012 FACE totaled approximately $265,000. We recommend that the vendors review and update as necessary their cost estimates. Updated estimates should be submitted as a revision to the 2013 FACE.*

Response: An updated cost for conveyor and crushing equipment to complete backfilling operations is provided by Aggregate Machinery Specialists and is included as Attachment 1 to the revised FACE. The updated costs have been incorporated into the FACE and reclamation costs have been updated accordingly throughout the document.

Attachment 4 includes invoices for the installation of erosion control materials and is provided to indicate reclamation work that was completed in 2012. These documents are invoices from the contractors for completed work, no update to these invoices is needed since this is for work completed and paid in full in 2012.

2. *The 2013 FACE includes Section 2.1 the costs for removing the processing plant and mine equipment. The mine experienced some vandalism during the past year that resulted in the destruction of several pieces of heavy equipment. During the Annual SMARA inspection, it appeared that this equipment was being salvaged, but the work had not been completed. The 2012-equipmet removal estimate wouldn't have included the costs of removing the vandalized heavy equipment. Therefore, we recommend that the Section 2.1 cost estimate be updated to include costs of removing the old primary crusher and associated conveyor system. We also recommend that the price for scrap steel also be reviewed and updated as necessary.*

Response: An updated inventory of on-site mobile equipment was provided by Lehigh Hanson staff and the equipment listed on page six of the FACE has been updated to reflect current conditions. Costs for removing this equipment have also been updated to account for changes to the equipment fleet at the site.

In early 2014, Lehigh Hanson relocated the primary crusher to a new location and the foundation at the old crusher location still remains in place. Removal of the old crusher is currently underway but is not yet complete. Costs have been included in the revised FACE to remove this structure as well as the newly constructed crusher foundation. Additional costs have been included to the tables on page 4 to account for demolishing the concrete, hauling it off site and dumping it at a C & D recycling facility.

The price of scrap steel fluctuates daily depending on supply and demand. Costs for scrap steel have been revised to reflect the current rate of $240 per ton for Type 1 steel when delivered to Alco Iron in San Jose.

3. *The 2012 Reclamation Plan Amendment requires the Surge Pile and Rock Plant areas to be brought back to near original grade and the adjacent Permanente Creek restored. The Reclamation Plan Amendment does not provide for stockpiles of material to remain in place of these areas. The stockpile material, consisting of approximately 300,000 tons of crush rock and located approximately 2,000 feet west of the Rock Plant will need to be moved into the North Quarry. The 2013 FACE must be revised to include the cost for moving the aggregate material to the North Quarry.*

Response: Costs for relocating the stockpiled materials from the current location into the North Quarry have been included in the revised FACE. Section 2.2.2 has been added to the FACE to provide costs and details on relocating the 300,000 tons of stockpiled material. Including this task added $671,843 in direct costs to the FACE.

The 300,000 ton stockpile consists of mined and crushed rock that will be sold as aggregate. This material is not intended for disposal but for processing and sale at the Rock Plant. The creation and management of product stockpiles is part of the surface mining operation, and based on the State Mining and Geology Board's Financial Assurance Guidelines, the costs of completing mining operations are not included in the financial assurance cost estimate. We believe that this item is not required to be included in the FACE, however in an effort to expedite this process and gain approval of the FACE we have included relocation of the stockpile in the

Lehigh Hanson
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revised FACE. This act in no way waives our right to exclude the relocation of the stockpiled materials from future FACEs.

Please contact me with any questions.

Knapp, Greg A. (San Ramon) NA

Digitally signed by Knapp, Greg A. (San Ramon) NA
DN: dc=net, dc=grouphc, ou=NA, ou=USA, ou=Users, cn=Knapp, Greg A. (San Ramon) NA, email=Greg.Knapp@hanson.biz
Date: 2014.01.31 09:48:10 -08'00'

Gregory Knapp
Director Environmental Affairs
Lehigh Hanson Region West

Financial Assurance Cost Estimate

for

Permanente Quarry

State Mine ID # 91-43-0004

Submitted to:

Santa Clara County
70 West Heading Street
East Wing, 7th Floor
San Jose, CA 95110

Prepared for:

Lehigh Southwest Cement Company
Permanente Quarry
24001 Stevens Creek Blvd.
Cupertino, CA 95014

Prepared by:

EnviroMINE Inc.

3511 Camino Del Rio South, Suite 403
San Diego, CA 92108
(619) 284-8515, Fax (619) 284-0115

~~August 2013~~
Revised January 2014

1.0 INTRODUCTION

1.1 Purpose

Under the California Surface Mining and Reclamation Act of 1975 (SMARA) (Public Resources Code Section 2719 *et seq.*), all surface mining operations are required to have an annually updated financial assurance estimate (FACE) approved by their Lead Agency, reflecting the cost of reclaiming the site. For purposes of this estimate, Santa Clara County is recognized as a Lead Agency through the adoption of local Zoning Ordinance, Title 8, Chapter 88-11, as certified SMARA compliant by the State of California.

1.2 Location

Permanente Quarry (Quarry) is a limestone and aggregate mining operation located in the unincorporated foothills of Santa Clara County, west of the city of Cupertino. The Quarry is situated approximately 3.0 miles southwest of the intersection of Interstate 280 and Highway 85. Site access is provided via Stevens Creek Boulevard and Foothill Expressway, continuing to the western terminus of Permanente Road.

1.3 Background

Limestone quarrying operations started at this site prior to the County's implementation of zoning in the area, thus making the mine a vested operation. SMARA requires all mine operators, including those with vested rights, to prepare a Reclamation Plan. The County approved the initial reclamation plan for the Quarry in March 1985. In June of 2012 a Reclamation Plan Amendment (RPA) was approved for the quarry and provides reclamation standards and strategies for lands impacted by the mining operation over the next 20 years. In total the RPA covers an area of 1,238.6 acres, with approximately 600 acres of the RPA Area existing as buffer that is not to be disturbed from mining. The remaining 639.6 acres referred to in the document as the RPA Footprint is subject to disturbance from mining operations.

Current operations at the site include a quarry cut-face with a series of benches and multiple material storage areas. The overall slope gradient of the benched quarry face is to be 1H:1V (horizontal: vertical), while the overburden fill slopes will be reclaimed at a maximum overall slope inclination between 2.5H:1V to 2.6H:1V. Reclamation at the Quarry is conducted on an annual basis for areas at final grade and not subject to further disturbance. In 2012, reclamation work commenced in the Permanente Creek Reclamation Area (PCRA), the installation of BMP's and hydroseeding was completed in Subareas 4, 5 and 6. Current grading activities are taking place in Phase 1A of the approved mine plan.

The majority of the 639.6 acre RPA footprint is found in a fully disturbed condition with little evidence of vegetative cover. An exception to this includes areas where reclamation has begun or areas that have naturally revegetated. Vegetation types within the quarry area include ruderal slopes, oak, chaparral and disturbed lands. The proposed end use for the quarry after reclamation is complete is open space. This FACE addresses all disturbed lands at the Quarry and reclamation costs are based off the 2012 approved RPA. Reclamation items at the Quarry that are

addressed in the approved RPA and incorporated in this FACE include: EMSA reclamation, backfilling the Main Pit to buttress past instabilities, Permanente Creek restoration, reclaiming the exploration areas on the south side of Permanente Creek, reclaiming the rock plant site and other mining related disturbance. In total, approximately 590 acres are currently disturbed at the Quarry.

Lehigh Southwest Cement Company, Inc. currently operates the mine and assumed the associated liability of reclaiming the site after the cessation of mining.

1.4 Methodology

This estimate utilizes the following resources:

- Reclamation Plan Amendment (RPA), Approved June 2012
- Existing geotechnical reports and studies
- Means Site Work & Landscape Cost Data
- Department of Industrial Relations, Prevailing Wage Determinations
- Caltrans, Labor Surcharge & Equipment Rental Rates (4/1/13-3/31/14)
- Caterpillar Handbook, Edition 37
- Cost estimate from Freeduln Hydroseeding
- Conveyor equipment cost from Aggregate Machinery Specialists
- Interviews with Lehigh personnel
- Pacific Coast Seed Company
- Personal experience of the estimator
- June 2012 RPA Final Conditions of Approval
- Dumpster rental quote from CDR Dumpster Rental, San Jose, CA
- Scrap steel quote from Alco Metals, San Jose, CA

This reclamation estimate provides anticipated costs for direct and indirect expenses that would be faced by the responsible party. Based on the requirements of the approved reclamation plan the following elements represent the direct costs of reclamation:

1. Removal of equipment, disposal of structures, and disposal of miscellaneous rubbish
2. Site grading
3. Backfilling the Main Pit
4. PCRA Reclamation
5. Revegetation
6. Revegetation Monitoring and Maintenance

The following elements represent the indirect costs of reclamation:

1. Supervision
2. Profit and Overhead
3. Contingencies
4. Mobilization

Taken together, the Direct and Indirect reclamation costs identify the total cost for reclamation. Finally, Lead Agency administrative costs (2%) are added to the total cost of reclamation to determine the overall financial assurance requirement.

2.0 ESTIMATED DIRECT COST OF RECLAMATION

2.1 Removal of Processing Plant and Equipment

Plant removal involves demolishing and transporting the Rock Plant including conveyors, crushers, screens, wash plants, scales, and miscellaneous structures to an offsite location. This also includes the removal of the overland conveyor that extends from the Main Pit to the Cement Plant. In addition to demolition and removal of these structures, all foundations must be demolished and removed, and compacted surfaces must be ripped to prepare the site for revegetation. Scrap steel will be taken to Alco Metals in San Jose for recycling while other non-recyclable materials will be put into roll-off dumpsters provided by CDR Dumpster Rental and hauled to off-site. It is estimated that approximately 1,000 tons of steel will be removed from the site. Alco Metal located in San Jose will pay $240 per ton of scrap steel when delivered to their yard. Therefore, $240,000 will be deducted from the total plant and equipment removal costs.

Overland Conveyors:

Mined rock is hauled from the Main Pit to the primary crusher located on the south side of the Main Pit. This material is crushed and transported to the cement plant and/or rock plant via an overland conveyor. The overland conveyor extends for a distance of approximately 8,900 feet and includes a primary crusher, two crusher foundations, transfer points, secondary crushing, interim stockpiles and a tunnel. Removal of the overland conveyor will require demolition of the steel structures and foundations, removal of conveyor belts and loading onto trucks for delivery to a salvage yard. Clean-up of miscellaneous rubbish and preparation of access roads for revegetation will be the final steps in this process.

In 2013 the primary crusher was relocated east to allow for ongoing pit expansion of the north quarry. The machinery and conveyor system was relocated to the new location, however the old concrete foundation for the crusher remains. Costs below account for demolishing and removing the concrete foundation for the crusher at the new location as well as the old location.

This task involves a CAT 330 Hydraulic Excavator, with a La Bounty Shear attachment, and CAT 330 Hydraulic Excavator, with a grappling attachment, to cut and load manageable sized sections onto an over-the-road truck to haul to Alco Scrap Metal in San Jose for recycling. Also included in this task is the demolition and removal of the concrete footings and foundations using a CAT 330 excavator equipped with a NPK H 12 rock hammer. It is estimated that approximately 1,500 CY of concrete will need to be demolished and removed from the site. Demolished concrete materials will be transported off-site to a recycling facility. It is estimated that each truckload will have a capacity of 17 yd^3 and each load will take approximately 1.5 hours to complete

Equipment	Each	Rate	Hours	Total
Cat 330 w/ Steel Shear	1	$232.48	45	$10,462
Cat 330 w/ Grapple	1	$178.10	60	$10,686
Cat 966 E Front-End Loader	1	$144.48	60	$8,669
Cat 330 w/ Breaker	1	$185.35	24	$4,448
Cat 320 w/2.2 cy bucket	1	$84.15	36	$3,029
Grove RT-635 40t Crane	1	$94.14	60	$5,648
Truck w/low bed trailer	1	$87.11	70	$6,098
Truck w/Semi-End Dump	1	$88.70	36	$3,193
Truck w/Semi-End Dump (Concrete)	5	$88.70	134	$11,886
Welding Truck	1	$56.88	60	$3,413
Pick up	2	$21.43	120	$2,572
Total Equipment Cost				**$70,104**

Labor	Each	Rate	Hours	Total
Excavator Operator	3	$63.17	165	$10,423
Loader Operator	1	$61.79	60	$3,707
Crane Operator	1	$63.17	60	$3,790
Low Bed Driver	1	$52.16	70	$3,651
Semi-End Dump Driver	1	$51.21	170	$8,706
Welder	2	$47.87	120	$5,744
Laborer	2	$46.92	120	$5,630
Foreman	1	$63.17	60	$3,790
Total Labor Cost				**$45,441**

Miscellaneous Expense	Each	Rate	Total
Roll-Off 20 CY Trash Containers	5	$575	$2,875
Concrete Recycling Fees	89	$80	$7,120
Total Miscellaneous Expenses			**$9,995**

Rock Plant Removal:

The rock plant is a fully integrated rock processing facility. Equipment at the processing plant includes:

- Approximately 3,400' of conveyors with attendant structural supports
- Approximately 7,000' of 36" conveyor belting
- Maintenance, control, and office buildings (approximately 18,000 square feet)
- 1,700 l.f. of conveyor tunnel
- 6 bag houses
- 850,000-gallon water tank
- 10,000-gallon water tank
- 4,000-gallon water tank
- 2,000-gallon above ground diesel tank

- Miscellaneous Electrical Panels
- 2 crushers
- 7 vibrating screens
- 35,000 S.F. of concrete foundations (assume 12" thickness)
- 4,500 L.F. of 2" water mains.
- 2 truck scales
- 2 belt presses
- 4 compressors
- Office and storage trailers
- Sand Screw

Removal of the rock plant will be accomplished in similar fashion to removal of the overland conveyor. The steel structures will be cut into manageable pieces with an excavator mounted with a steel shear, with pieces placed on an over-the-road truck for removal to a scrap yard. However, the processing plant also includes screens, crushers, wash plant, support buildings, and scales. This equipment will be dismantled in the most efficient manner possible, which may include shearing, cutting using a cutting torch, or simply unbolting the equipment from the support structures prior to demolition. Five (5) separate tunnels that total approximately 1,700' in length connect the various surge piles with different processing circuits. These tunnels will need to be excavated to remove the corrugated culvert pipe supports.

Concrete foundations will be demolished using a rock breaker attachment on an excavator and a front end loader. It is estimated that approximately 2,200 CY of concrete will need to be demolished and removed from the site. Demolished concrete materials will be transported off-site to a recycling facility. It is estimated that each truckload will have a capacity of 17 yd^3 and each load will take approximately 1.5 hours to complete.

Equipment	Each	Rate	Hours	Total
Cat 330 w/ Steel Shear	1	$232.48	48	$11,159
Cat 330 w/ Grapple	1	$178.10	48	$8,549
Cat 966 E Front-End Loader	1	$144.48	48	$6,935
Cat 330 w/ Breaker	1	$185.35	80	$14,828
Cat 320 w/2.2 cy bucket	1	$84.15	40	$3,366
Grove RT-635 40t Crane	1	$94.14	48	$4,519
Truck w/low bed trailer	1	$87.11	48	$4,181
Truck w/Semi-End Dump	1	$88.70	48	$4,258
Truck w/Semi-End Dump (Concrete)	5	$88.70	200	$17,740
Welding Truck	1	$56.88	60	$3,413
Pick up	2	$21.43	80	$1,714
Total Equipment Cost				**$80,662**

Labor	Each	Rate	Hours	Total
Excavator Operator	4	$63.17	216	$13,645
Loader Operator	1	$61.79	48	$2,966
Crane Operator	1	$63.17	48	$3,032
Low Bed Driver	1	$52.16	48	$2,504
Semi-End Dump Driver	1	$51.21	48	$2,458
Semi-End Dump Driver (Concrete)	5	$51.21	200	$10,242
Welder	2	$47.87	120	$5,744
Laborer	2	$46.92	96	$4,504
Foreman	1	$63.17	80	$5,054
Total Labor Cost				**$50,149**

Miscellaneous Expense	Each	Rate	Total
Roll-Off 20 CY Trash Containers	10	$575	$5,750
Concrete Recycling Fees	130	$80	$10,400
Total Miscellaneous Expenses			**$16,150**

Mobile Equipment Removal:

Aside from the processing plant facilities, other equipment used at the site includes the following:

- 5 CAT 988 Wheel Loaders
- 1 CAT 963 Loader
- 1 CAT 824C Wheel Tractor
- 4 CAT 992 Wheel Loaders
- 1 CAT 216 Skid Steer
- 2 CAT 226 Skid Steer Loaders
- 1 Bobcat 743 Skid Steer
- 1 CAT 16G Motor Grader
- 2 CAT D10T Bulldozers
- 1 Nobel R80 Forklift
- 1 CAT 824 C Rubber Tired Dozer
- 2 CAT 773 Mining Truck
- 2 CAT 777 Mining Trucks
- 3 CAT 740 Mining Trucks
- 1 Euclid R35 Mining Truck
- 1 Driltech DK45 Drill
- 1 Miller 600D Welder
- 1 CAT IT14 Loader
- 1 Ingersol-Rand WL 440 Loader
- 1 JLG Aerial Lift
- 9 Allmand 695 Lite portable light towers
- 1 Guzzler Sump Pump
- 2 Water Trucks

It is assumed that all of the equipment in the preceding list is in good repair and can be loaded directly onto a lowboy trailer and removed from the site. For purposes of this estimate, it is assumed that each piece of equipment will require 0.5 hour for loading, 1.0 hour to haul to a resale dealer in the San Jose area, including unloading, and 0.5 hour to return to the site. Approximately two (2) hours will be required to remove each piece of equipment from the site. At this time there are 45 pieces of equipment that must be removed from the site. Removing this equipment will require 32 loads. Of the total loads required to remove the equipment 19 of which will require special treatment as wide loads with pilot cars, permits and a 5 axle lowboy trailer. Estimated costs for equipment removal are shown below.

Cost Item	Quantity	Hours	Rate	Total
Trucking w/ Tractor and Lowboy Trailer (including operator)	13	26	$139.27	$3,621
Trucking w/ Tractor, 5-axle Lowboy Trailer & 2 pilot vehicles (including operators)	19	lump sum	$2,555	$48,545
Total Heavy Equipment Removal Cost				**$52,166**

Note: trucking costs include truck, trailer and driver

Total Cost for Removal of Plant Facilities and Heavy Equipment	**$324,667**
Total Value of Scrap Steel	**$240,000**
Net Cost for Removal of Plant Facilities and Heavy Equipment	**$84,667**

2.2 Site Reclamation

Site grading will stabilize slopes and prepare the site for revegetation in accordance with the 2012 approved RPA. This estimate's restoration scenario incorporates backfilling of the Main Pit to buttress past instabilities. To accomplish this, the West Materials Storage Area (WMSA) will be used as the primary source of backfill material, since mining byproducts (unused mined material) will not be available.

2.2.1 Backfilling of the North Quarry

Backfilling the North Quarry will involve transporting and placing fill materials. Based off site conditions in October of 2011, Chang Consulting estimated that approximately 28,500,000 Cubic Yards (CY) of material would be required to backfill the North Quarry to the elevations identified in the RPA. Total backfilling volumes were estimated by comparing topographic data in 2011 and the proposed reclamation contours identified in the RPA.

Since October 2011, Lehigh has continued to remove material from the North Quarry and has also began backfilling operations. Since the volume calculation in 2011, approximately 2,279,046 CY of material has been removed from the North Quarry and 2,203,674 CY of backfilling has been completed. The continued backfilling and mining activity at the site has nearly balanced out over the last two years, leaving the total backfill volume required to complete reclamation of the North Quarry at approximately 28,424,628 CY. Ample volumes of backfill currently exist at the West Material Storage

Area (WMSA). A conveyor will be utilized to transport approximately 28,424,628 CY of backfill material from the WMSA to the North Quarry.

The conveyor system will place material directly into the pit. To increase efficiency of the conveying system, portable conveyors will be moved around the WMSA as backfilling progresses. Two (2) D10 dozers will push overburden into a dozer trap that will feed the conveyor system. Oversized material will be reduced by a jaw crusher to six (6) inch minus prior to loading onto the conveyor. A D11 dozer will be utilized within the North Quarry to spread conveyed materials in the backfill area. Backfilling of the North Quarry will take approximately five (5) years, working two shifts per day, five days per week, on a year round basis.

Conveying Backfill Material:

To relocate approximately 28,424,628 CY of overburden from the WMSA to the North Quarry a conveyor system will be utilized. Material will be pushed directly from the WMSA into a feeder and onto the conveyor system. Oversized material will be reduced by a jaw crusher to six (6) inch minus prior to loading onto the conveyor.

Backfilling of the North Quarry will also include grading of approximately 6,700,000 CY of non-limestone material that has been identified as the "Main Slide". Materials originating from the Main Slide will be removed using a D 10 bull dozer. As the backfill elevation increases in the pit, Main Slide materials will be joined with this material. This will reduce push distances and allow a single dozer to complete removal of the Main Slide.

To optimize production from the dozers the conveyor system will be relocated as grading progresses; average push distances will be kept at approximately 300 feet. Throughout the backfilling operation, sections of conveyor will be relocated to reduce the need for additional conveyor to access all areas of the WMSA. During each phase of backfilling only one collection point for the dozers to push material to will be utilized. The system will be capable of shipping approximately 1,380 CY per hour over the conveyor. All equipment required to convey material from the WMSA to the North Quarry is included in the cost estimate from Aggregate Machinery Specialists included in Attachment 1. Generally the conveyor system is composed of three separate parts:

- Primary
- Conveyor
- Radial Stacker

The first equipment discussed in the proposal is the primary station, which includes a heavy duty 38" by 62" jaw crusher and a 62" by 42" vibrating grizzly feeder. The crusher and feeder come with all the add-ons necessary to operate the systems. The conveyor identified for the project is made up of four (4) 42" by 2,375' ground line channel conveyors. The conveyors come with all the belting, motors, pulleys and guards to operate the system. The last piece of equipment required to complete the conveyor system is the Radial Stacker. The stacker is a 30" by 190' portable TeleStacker conveyor, costs for the radial stacker include all accessories recommended in the quote provided in Attachment 1.

In addition to purchasing the system and installing it at the site there will be operation and maintenance costs to run the system while the backfill material is transported from the WMSA to the North Quarry. Costs for operation and maintenance have been included in the table below. These costs include all replacement parts and labor to operate the system over the approximate five (5) year period required to complete backfilling. It is assumed that the conveyor system will generate approximately 75% of the power to operate the conveyor. Remaining electrical power costs are included to address expected operating costs.

At the North Quarry once material is shipped over the conveyor system and generally distributed in the pit by the Radial Stacker, a D11 dozer will compact and push material around the dump site for final placement. The dozer will only be required to push approximately 1/4 of the material around the North Quarry because the Radial Stacker will distribute the majority of the backfill material. Costs in the table below include purchasing and operating the conveyor system as well as all mobile equipment and labor required to complete the backfilling operation. A detailed quote for the conveyor system machinery was provided by Aggregate Machinery Specialist included as Attachment 1.

Equipment	Each	Rate	Hours	Total
42" Conveyor System Over 10,000'	N/A	LS	N/A	$8,410,000
Cat D10N Dozers	3	$330.39	61,950	$20,467,661
Cat D11 Dozer	1	$513.57	7,600	$3,903,132
Water Truck	1	$44.22	6,890	$304,676
D 10 Dozer Operators	3	$61.79	61,950	$3,827,891
D 11 Dozer Operator	1	$61.79	7,600	$469,604
Water Truck Driver	1	$51.51	6,890	$354,904
Conveyor Operation/Maintenance	L.S./ Hour	$42.26	20,650	$872,669
Electricity	187 Kwh	$23.59	20,650	$487,134
Total Backfilling Costs				**$39,097,671**

Prior to operation of the conveyor system it will need to be installed at the site. Costs for initial installation of the conveyor and accessory equipment are included in the table below. Costs for removing the conveyor system are included in mobilization.

Equipment	Each	Rate	Hours	Total
Grove RT 525 Crane	1	$73.32	200	$14,664
Cat 938 G Loader	1	$104.49	200	$20,898
Cat 315L Excavator	1	$64.01	200	$12,802
Crane Operator	1	$63.17	200	$12,634
Pickup Truck	2	$21.43	400	$8,572
Excavator Operator	1	$63.17	200	$12,634
Loader Operator	1	$61.79	200	$12,358
Foreman	1	$63.17	200	$12,634
Laborers	2	$46.92	400	$18,768
Total Conveyor Installation Costs				$125,964

During operation of the conveyor system sections of the conveyor will need to be relocated as grading progress through the WMSA. Relocating the conveyor system will take approximately eight (8) hours to complete. Throughout the operation it is anticipated that relocating the system will need to be done about 10 times. Costs in the table below include all equipment and labor necessary to relocate sections of the portable conveyor.

Equipment	Each	Rate	Hours	Total
Cat 325L Excavator	1	$111.02	80	$8,882
Cat 988 Loader	1	$187.00	80	$14,960
Excavator Operator	1	$63.17	80	$5,054
Loader Operator	1	$61.79	80	$4,943
Laborers	2	$46.92	160	$7,507
Total Conveyor Relocation Costs				**$41,346**

Water is necessary for dust suppression for the pit back fill operations. The water will service the conveyor system and haul road dust suppression needs. Water is currently available at the existing crusher/conveyor. Extension of water to the backfill conveyor will require digging a trench and running a 4" water main, including pipe bedding over a 6,000' distance within the existing haul road that extends between the crusher and the west materials storage area. Means Site Work and Landscape Cost Data, 2012 and increases in CPI were used to estimate these costs.

Activity	Distance	$/foot	Total
Water Line Construction	6,000	$12.66	$75,960

Electrical power must be provided to power the conveyor system used to backfill the pit. Although the conveyor system will generate up to 75% of total power requirements, some power will be necessary for start up and continuous operations. Electrical power will be extended from the crusher/conveyor system used to transport materials from the pit to the cement and aggregate plants. This will require an extension of electrical lines for approximately 5,800 feet to the backfill conveyor system. It is assumed that the power poles can be spaced at 300' intervals. Over the 5,800' distance, 20 power poles will be necessary. The cost for extending power is estimated using Means Site Work and Landscape Cost Data, 2012 and increased by CPI to account for inflation. Power line extension is estimated on a per pole basis and includes all poles and wiring.

Activity	Poles	$/Pole	Total
Power Line Construction	20	$2,024	$40,480

2.2.2 Stockpile Relocation Costs

A stockpile located west of the Rock Plant that contains approximately 300,000 tons of crushed rock will be relocated to the North Quarry using a team of off-road haul-trucks traveling over the existing network of quarry roads. A Cat 992 front-end-loader will load the stockpiled material into the haul trucks while a water truck and grader will be utilized to maintain the road network and suppress dust. Equipment

production rates from the Caterpillar Handbook and individual site conditions dictate equipment needs for the job. Production rates in the Caterpillar Handbook are expressed in CY and not tons, therefore the volume of the stockpile has been converted to CY using a factor of 1.5 tons per CY. Using this conversion factor the stockpile volume is approximately 200,000 CY. All equipment rates and site characteristics used to develop equipment production rates for this particular application are included in the tables below:

Cat 777 Off-Road Haul-Truck Production Rates:

Fixed Time (min)	
Load Site Maneuvering	1.1
Dump Site Maneuvering	0.7
Loading W/992	3
Total Time (min)	**4.8**

Cat 777 Haul Truck Production Rates	Avg. (ft) Distance	Avg Grade (%)	Avg Time (min)	Round Trip Travel Time (min)	Total Trip Time (min)	777 D Capacity
Site Average Loaded	13,000	10	18	25.6	30.4	65 CY
Site Average Empty	13,000	10	7.6			

Front-End-Loader Production Rates:

Cat 992 C Front-End-Loader Production Rates	Bucket Capacity	Cycle Time (min)	Buckets Per Truckload	Total Time to Load a 777 D (min)
	15CY	0.6	5	3

To complete relocating the 200,000 CY of material a team of eight haul-trucks will be used to transport the material to the North Quarry. A Cat 992 front-end-loader will be used to load material into the haul trucks. Costs in the table below represent all labor and equipment needed to complete the task:

Item	Each	Rate/Hr	Hours	Total
Cat 992 C Front End Loader	1	$500.76	195	$97,648
Cat 777 D Haul Trucks	8	$282.01	195	$439,936
12H Blade	1	$90.37	98	$8,856
Water Truck	1	$80.02	195	$15,604
Haul Truck Driver	8	$52.16	195	$81,370
Water Truck Driver	1	$51.51	195	$10,044
Loader Operator	1	$61.79	195	$12,049
Blade Operator	1	$64.65	98	$6,336
Total Stockpile Relocation Costs				$671,843

2.2.3 Adding Organic Material to Backfilling

As recommended in the Attachment G -SES Reclamation Water Quality Report of the RPA, backfill is to be amended with organic matter while it is being placed in the North Quarry. It is estimated that approximately 63,000 tons of organic matter will be required to be mixed into the backfill material at the North Quarry. The source of the organic matter is to be from an off-site source. This estimate assumes that these materials would originate from an organic material from a supplier in Gilroy, Ca.

The organic material would be mixed into the backfill material during filling of the upper zones of the quarry within the pit; i.e., starting at elevation 935 to 960 ft amsl and up to approximately 985 ft amsl. Groundwater in the quarry is expected to stabilize at an elevation of between 985 and 990 ft amsl. The addition of organic material will occur during the placement of approximately 5,000,000 CY of backfill within the final 25 to 50 feet of fill in the quarry area near the end of Phase 2. Given the estimated production of the backfilling operation of 1,380 CY per hour it will take approximately 190 days of backfilling the North Quarry at elevations where Organic material is recommended.

Trucks will deliver the material to the WMSA near the hopper for the portable conveyor system and a 938 loader will feed the material into the hopper. The 938 loader is capable of loading 420 cubic yards per hour into the hopper, however a production level much lower is assumed to account for mixing of organic material and backfill. To balance out the distribution of the organic material the loader will feed material into the hopper three times per day operating one hour at a time. Once loaded into the hopper the material will travel along the portable conveyor system to be transported to the North Quarry.

Equipment	Each	Rate	Hours	Total
Cat 938 Loader	1	$92.34	600	$55,404
Loader Operator	1	$61.79	600	$37,074
Organic Material*	63,000 (Tons)	$30.75	N/A	$1,937,250
Total Organic Material Mixing Costs				**$2,029,728**

**Costs for organic material include delivery*

2.2.4 Capping Site With Non-Limestone Material

Measures to protect surface water quality during reclamation activities consist of isolating runoff from limestone materials in the North Quarry backfill, WMSA, and EMSA. This will be accomplished during reclamation construction by covering reclaimed areas, and by construction of an effective surface drainage system. The recommended cover includes the placement of a 1-foot thick layer of run-of-mine non-limestone rock (i.e., greywacke, chert, and greenstone) over areas where limestone materials are used as general fill for reclamation. These areas are limited to 440 acres of the site and include the WMSA, EMSA and the North Quarry. The total area to receive capping material accounted for in the FACE is a conservative estimate and accounts for capping all surfaces within the WMSA, EMSA and North Quarry. Field investigation and testing performed by a geologist in the field will determine areas of the site to be capped with non-limestone material during reclamation. The FACE

assumes costs for capping the entire 440 acres, even though capping may not be required over the entire 440 acre area.

Preliminary analysis indicates that the WMSA has ample quantities of non-limestone material, which will meet the required 710,000 CY needed for capping. Drill borings and geologic investigation of the WMSA estimate that approximately 80% of the material in the WMSA is non-limestone material that is suitable for use as capping material. Stockpiled in the WMSA and ready for use as capping material, the non-limestone material will be identified by a geologist during backfilling and utilized for capping material. No additional processing or stockpiling of the material is required prior to use as capping material. Costs for finish grading of non-limestone capping material are accounted for in Section 2.2.5 Finish Reclamation.

Distribution of non-limestone material for capping will utilize a variety of equipment. A combination of dozers, scrapers, loaders and off-road haul trucks will be utilized to distribute the non-limestone capping material. Three separate areas require capping material and three separate equipment combinations will be utilized in order to maximize the efficiency of the equipment.

East Material Storage Area (EMSA) :

Material required for the EMSA is approximately 120,000 CY of non-limestone material. This material will be transported from the WMSA to the EMSA using 777D haul trucks. The average haul distance is approximately 12,000 feet one way. Material will be loaded into off-road haul trucks by a Cat 992 loader and transported to the EMSA for placement. Below are production estimates and assumptions utilized for the cost estimate:

Loaded-3.8 Min @ an average grade of -4%
Empty-3.8 Min @ an average grade of 4%
Total Travel Time-7.6
Loading and unloading-4.1 min
Loads/Hour- 5.1
Truck Capacity-72 CY
Production Per Truck Per Hour- 367 CY
Job Efficiency- 83%
Adjusted Production Per Hour- 305 CY
Total Time Required- 393 Hours

North Quarry:

Material required for the North Quarry is approximately 361,000 CY of non-limestone material. This material will be transported from the WMSA to the EMSA using 777D haul trucks. The average haul distance is approximately 4,000 feet one way. Material will be loaded into off-road haul trucks by a Cat 992 loader and transported to the North Quarry for placement. Production estimates and assumptions utilized for the cost estimate are listed below:

Loaded-1.4 Min @ an average grade of -4%
Empty-1.4 Min @ an average grade of 4%
Total Travel Time-2.8
Loading and unloading-4.1 min
Loads/Hour- 8.7
Truck Capacity-72 CY
Production Per Truck Per Hour- 626 CY
Job Efficiency- 83%
Adjusted Production Per Hour- 520 CY
Total Time Required- 694 Hours

West Material Storage Area (WMSA):

Material required for the WMSA is approximately 229,000 CY of non-limestone material. This material will be distributed around the WMSA using Cat 651 scrapers. Scrapers are self-loading machines and do not require a loader, however a dozer is required as a push cat to assist in loading of the scrapers. The average haul distance is approximately 1,400 feet one way. Below are production estimates and assumptions utilized for the cost estimate:

Fixed Time	
Load Time	.6 min
Spread Time	.7 min
Total	1.3 min

Cat 651E Scraper Production Rates	Avg (ft) Distance	Avg Grade (%)	Avg Time (min)	Round Trip Time (min)	Total Trip Time (min)	Trips per Hour
Site Average Loaded	1,400	4	1.1	2.9	4.2	14.2
Site Average Empty	1,400	4	.8			

Cat 651E Scraper Operational Logistics	Trips/Hour	651E Capacity (struck)	CY/Hr	CY Total	Job Efficiency	Hours Required
Logistics	14.2	32 cy	454	229,000	83%	**608**

All labor and equipment costs for distributing non-limestone capping material are included in the table below:

Equipment	Each	Rate	Hours	Total
Cat 992B Loader	2	$331.77	724	$240,201
Cat 777 Haul Truck	3	$282.01	1087	$306,545
Cat 651 B Scraper	4	$293.55	608	$178,478
Cat D 10N Dozer	2	$330.39	304	$100,439
Water Truck	1	$44.22	514	$22,729
Loader Operator	2	$61.79	724	$44,736
Off-Road Haul Truck Driver	3	$52.16	1087	$56,698
Scraper Operator	4	$63.17	608	$38,407
Dozer Operator	2	$61.79	304	$18,784
Water Truck Driver	1	$51.51	514	$26,476
Total Non-Limestone Material Capping Costs				**$1,033,494**

2.2.5 Scarification of Roads

It is assumed that a CAT D8R Bulldozer, configured with multi-shank ripper, will be used to scarify the roads. Moving at an assumed average rate of 2.2 m.p.h. (1st gear) it would take approximately four (4) hours to rip an estimated 18,000 feet of roadway, making four overlapping passes.

Equipment costs were derived from the Caltrans Labor Surcharge and Equipment Rental Rates manual (4/1/13-3/31/14). Labor rates are provided by the Department of Industrial Relations Prevailing Wage Determinations for Operating Engineers and Teamsters.

Task	Each	Hours	Rate	Total
D8R Dozer W/Ripper	1	7	$212.70	$1,489
Operator Cost	1	7	$61.79	$433
Total Cost for Road Scarifying				**$1,922**

2.2.6 Finish Reclamation

Finished grading will include dressing out material storage areas, the Rock Plant site and other previously disturbed areas in preparation for revegetation.

Approximately 590 acres are currently disturbed, of this area approximately 542 acres of this total will require finish grading prior to revegetation. This total assumes that 30 acres of roadway will remain following reclamation and another 14 acres within the Permanente Creek Restoration Area (PCRA)will not be graded. The table below assumes the use of a dozer with an average finish grading rate of one acre per hour. A dozer is preferred over a wheel type tractor because its track impressions will imprint final slopes to retain seeds and increase water retention and infiltration, thereby increasing the potential for revegetative success.

Task	Each	Hours	Hourly Rate	Total Cost
Grading with a D8N	1	542	$198.48	$107,576
Operator Cost	1	542	$61.79	$33,490
Total Cost for Finish Grading				**$141,066**

2.2.7 Installation of BMP's

After grading work has been completed and prior to revegetating the site permanent BMP's will be installed to manage stormwater runoff. A total of three permanent desiltation basins will be constructed to manage runoff at the WMSA, North Quarry and EMSA. Costs in the table below include all equipment and labor required to install BMP's.

Type	Cost Each	Quantity	Total Cost
Desiltation Basins	$20,500	3	$61,500
Total Cost for BMP Installation			**$61,500**

2.2.8 Geotechnical Oversight

Backfilling operations as well as distribution of non-limestone capping material and Permanente creek restoration will require the oversight of a geological technician in the field during operations. Once all backfilling is completed a final report will be prepared by a Registered Geologist. Costs in the table below account for a field geologist to spend 20 hours per week for observing backfilling operations for approximately five years. Additional field time is also included in the table to account for time to geotechnical supervision of distribution of capping material.

Task	Hours	Hourly Rate	Total Cost
Geotechnical Monitoring (Technician)	5,545	$90.00	$499,050
Geotechnical Monitoring (Supervision)	280	$150.00	$42,000
Final Geotechnical Report	80	$150.00	$12,000
Total Costs for Geotechnical Oversight			**$553,050**

Total Cost for Site Grading and Backfilling **$43,874,024**

2.3 Permanente Creek Reclamation Areas (PCRA)

This section describes the reclamation costs of historic mining disturbance adjacent to Permanente Creek, described as the Permanente Creek Reclamation Area ("PCRA"). For mapping and illustrative purposes, the PCRA is divided into seven different subareas (numbered one through seven) with customized reclamation treatments for each subarea. In 2012 after approval of the RPA reclamation work commenced in Subareas 4, 5 and 6 and was completed in late October. Work completed included installation of BMP's as well as hydroseeding of disturbed areas. In total approximately nine (9) acres in the PCRA was reclaimed in 2012. Costs in the tables below reflect completed reclamation work as well as anticipated reclamation costs in

accordance with the approved RPA. Invoices for the completed work are included as Attachment 4.

2.3.1 Concrete Culvert Removal from Permanente Creek

Removing a concrete half culvert located in the proposed restored stream channel is one aspect of the Permanente Creek Restoration. The concrete half culvert is located just downstream from Pond 13 and covers a length of approximately 375 feet. It is estimated that approximately 130 cubic yards of concrete will need to be demolished and removed to complete removing the concrete half culvert.

According to the CAT Handbook, an H120c hydraulic hammer attached to a 315L excavator can demolish approximately 230 cubic yards of reinforced concrete within 8 hours. Once the concrete has been broken into pieces that are 2-feet in diameter or smaller, the excavator will be used to load the material into haul trucks. According to the CAT handbook, the 315L has an average cycle time of 20 seconds. Assuming that the average bucket load will be 0.75 yd^3, it will take one (1) hour for the excavator to load 130 yd^3 into the trucks. It is estimated that each truckload will have a capacity of 17 yd^3 and each load will take 1.5 hours to complete. All concrete removed from the site will be hauled off site to a C and D Recycling facility. Additional time has been added to this time to account for truck warm-up and mobilization. The table below represents a cost estimate for demolishing and removing the culvert.

315L Excavator w/ Rock Breaker Attachment	1	$103.03	6	$618
Excavator Operator	1	$63.17	6	$379
315L Excavator w/ bucket	1	$64.01	2	$128
Excavator Operator	1	$63.17	2	$126
Haul Truck	4	$88.70	12	$1,064
Truck Driver	4	$51.21	12	$615
Foreman	1	$63.17	8	$505
Laborer	2	$46.92	8	$375
Pick Up	1	$21.43	8	$171
Concrete Recycling Fees*				$640
Total Cost of Removing Concrete Culvert				**$4,623**

** Concrete Recycling fees of $80 per load were obtained from Hanson Aggregates*

2.3.2 Permanente Creek Reclamation Grading

The reclamation plan calls for restoration of about 2,500 linear feet of Permanente Creek. Material from historic mining has collected in the creek channel. The reclamation plan calls for removal of this material and creation of a reconfigured creek channel that is roughly 50 feet wide with a 10 foot bottom and 3:1 side slopes. Material removed from the creek during the reconstruction of the channel will be hauled to the North Quarry and utilized as backfill material. In total there is an estimated 17,500 Cubic Yards of material that will be removed from the channel to create the reconfigured channel. Costs in the table below include all grading to

reconstruct the channel, as well as the installation of step pools and the repair of sheet piles located in Subarea 6.

Task	Each	Hours	Rate	Total
Cat 330 Excavator	1	110	$152.34	$16,757
Cat 966F Loader	1	100	$147.60	$14,760
Cat 740 Articulated Haul Truck	2	90	$122.66	$11,039
Excavator Operator	1	110	$63.17	$6,949
Loader Operator	1	100	$61.79	$6,179
Truck Driver	2	90	$52.16	$4,694
Laborer	1	20	$46.92	$938
Total Cost for Creek Channel Restoration Grading				**$61,317**

2.3.3 Boulder Removal

A number of limestone boulders have found their way into Permanente Creek as a consequence of mining operations. These boulders range in size from approximately 10" to 3' in diameter. The majority of these boulders falls within a size class of between 12" and 24" in size. This estimate assumes that 200 boulders are located within the inundation limits of Permanente Creek. It is estimated that 25% of the boulders fall into the smaller sized fraction. These boulders will be removed using hand labor. Boulders ranging in size from 12" to 24" represent 60% of the total, while 15% fall in the upper size range. These boulders must be removed using a combination of hand labor and mechanized equipment.

The smaller of these boulders will be removed using hand labor, while the larger boulder will require mechanized removal. All of the boulders will be removed and deposited on the north side of Permanente Creek where they can be removed using a front end loader and dump truck.

Boulders in the 12" to 24" size fraction represent the majority of the boulders and will be removed using a variety of mechanized methods. Where the boulders can be removed by an excavator, these boulders will be placed within the bucket of the excavator using mechanized power assisted by hand labor. This estimate assumes that approximately 25% fall within this capability. Where boulders cannot be manipulated and removed directly using an excavator, large (1 cy) nylon bags will be used extract the boulders. The boulders will be placed into the bags using hand labor to roll the boulders into the bags. The bags will be connected to a choker that is connected to an excavator and pulled onto an area where they can be removed from the influence of Permanente Creek. Larger sized boulders would either be broken up into smaller pieces and removed using hand labor or anchor bolts will be inserted into the boulders. The anchor (eye bolts) will then be attached to a choker using a clevis and choker and pulled from the influence of Permanente Creek. Once removed from the creek, boulders will be loaded onto off-road haul trucks and hauled to the North Quarry for final placement. Costs in the table below include all labor and equipment necessary to complete the task of removing limestone boulders from Permanente Creek.

Task	Each	Hours	Rate	Total
Cat 330 Excavator	1	64	$152.34	$9,750
Cat 966F Loader	1	48	$147.60	$7,085
Cat 740 Articulated Haul Truck	1	64	$122.66	$7,850
Excavator Operator	1	64	$63.17	$4,043
Loader Operator	1	48	$61.79	$2,966
Truck Driver	1	64	$52.16	$3,338
Laborer	4	256	$46.92	$12,012
Total Cost for Boulder Removal				**$47,044**

2.3.4 BMP Installation

After grading work has been completed and prior to revegetating the site temporary and permanent BMP's will be installed to manage stormwater runoff. Temporary BMP's will include Straw Waddles and Silt Fencing to be installed in the PCRA. A total of two permanent desiltation basins will be constructed in Subarea 1 to manage runoff. Costs in the table below include all equipment and labor required to install BMP's.

Type	Cost Each	Quantity	Total Cost
Straw Waddles	$4.61	37,600	$173,336
Silt Fencing	$4.10	3,450	$14,145
Desiltation Basins	$20,500	2	$41,000
Total Cost for BMP Installation			**$228,481**

2.3.5 Slope Treatment

Slopes located in Subareas 2 and 3 of the PCRA are comprised of loose unconsolidated fill material. In an effort to reduce erosion from these slopes and provide more favorable surfaces for seed propagation the slopes will be compacted with a sheep's foot that is moved up and down the slopes by a winch.

Task	Each	Hours	Rate	Total
D8R Dozer W/Winch	1	16	$205.13	$3,282
Sheeps Foot Attachment	1	16	$12.01	$192
Operator Cost	1	16	$61.79	$989
Total Cost for Slope Compaction				**$4,463**

2.3.6 PCRA Revegetation

Seed Mixes:

The tables below summarize the hydroseeding components and associated costs that will be incurred for revegetation of 13.7 acres in the PCRA treatment areas. See Attachment 5 for a seed quote from Pacific Coast Seed.

PCRA Slope Seed Mix:

Scientific Name	Common Name	Lb/Acre	Price/Lb	Total Cost for 13.7 Acres
SHRUBS				
Artemisia californica	California sagebrush	10	$30.00	$4,110
Baccharis pilularis	coyote brush	6	$30.00	$2,466
Eriogonum fasciculatum	Eastern Mojave buckwheat	16	$7.50	$1,644
Salvia mellifera	black sage	4.3	$48.00	$2,828
GRASSES AND HERBS				
Achillea millefolium	yarrow	2	$30.00	$822
Artemisia douglasiana	Douglas' sagewort	1.9	$60.00	$1,562
Bromus carinatus	California brome	6	$6.50	$534
Clarkia purpurea ssp. quadrivulners	winecup clarkia	1	$60.00	$822
Elymus glaucus	blue wildrye	6	$13.50	$1,110
Heterotheca grandiflora	telegraph weed	1	$60.00	$822
Lotus purshianus	Spanish clover	3.6	$70.00	$3,452
Plantago erecta	dotseed plantain	3	$30.00	$1,233
Sisyrinchium bellum	Western blue-eyed grass	1.4	$90.00	$1,726
Vulpia microstachys	small fescue	10	$18.00	$2,466
Total		**72.2**		**$25,597**

PCRA Riparian Seed Mix:

Scientific Name	Common Name	Lb/Acre	Price/Lb	Total Cost for 1 Acres
Artemisia douglasiana	mugwort	2	$60	$120
Carex barbarae	valley sedge	3	$90	$270
Carex praegracilis	field sedge	3	$95	$285
Cyperus eragrostis	tall flatsedge	6	$120	$720
Hordeum brachyantherum	meadow barley	18	$18	$324
Juncus effusus	bog rush	1	$100	$100
Juncus patens	common rush	1	$120	$120
Leymus triticoides	creeping wildrye	6	$55	$330
Total		**40**		**$2,269**

Hydroseeding

Area	Total Acres to Hydroseed	Hydroseed Slurry Application $/acre	Total Cost
PCRA	13.7	$4,951	$67,829
Total			**$67,829**

PCRA Riparian Planting

In areas of Permanente Creek where the channel has been reclaimed, the 3:1 floodplain banks will be hand planted with container stock. Approximately 1.5 acres will require hand planting. This estimate assumes a mix of one gallon and smaller container stock planted at a spacing of about 5'. Costs for plant materials and labor were provided by WRA Inc. Costs in the table below include all labor and materials to install plantings along approximately 2,500 feet of the reclaimed Permanente Creek channel.

Total Number of Plants	Cost Per Plant	Total Cost
2,500	$12.81	$32,025

PCRA Permitting

Prior to completing Permanente Creek restoration activities the proper permits must be obtained. These may include CDFG permits, ACOE permits or RWQCB permits. Costs for obtaining permits and completing a wetland delineation of Permanente Creek are included in the table below. Revegetation is considered successful when total tree, shrub and herbaceous cover meets 50 percent of the total treated surface. For the purpose of monitoring, slope units will be defined as contiguous expanses of slope treated during a single year or application event.

Permitting Costs	$41,000
Wetland Delineation	$5,125
Total	$46,125

2.3.6 PCRA Monitoring

During the reclamation of the PCRA treatment areas geologic and revegetation monitoring will be required. Monitoring will include a geologist going in the field to observe grading activities and make grading recommendations as needed. The biologist would monitor the site during construction activity to limit the impacts to existing vegetation. Monitoring costs included in the table only account for monitoring during reclamation activities and do not include costs for monitoring for reclamation success, those costs can be found in Section 2.5.

Cost Item	Hours	Rate	Total
Creek Restoration Monitoring (Biologist)	100	$105	$10,500
Geologic Monitoring (Geologist)	120	$125	$15,000
Total Monitoring Costs			**$25,500**

Total PCRA Reclamation Costs **$545,273**

2.4 Revegetation

The revegetation of disturbed lands at the Quarry is designed to establish a self-sustaining community of native species, in compliance with the Reclamation Plan and consistent with the Reclamation Standards identified in SMARA (California Public Resources Code, Article 9, Section 3705).

Previous restoration planting at the Quarry has been used as a guide for revegetation planning. Revegetated areas now dominated by native species serve as a basis for anticipated revegetation success. Native species common in revegetated areas include California buckwheat, coyote brush, buckbrush and sagebrush.

The goal for revegetation efforts is native community restoration. This refers to the reclamation of disturbed lands to a self-sustaining community of native species which will visually integrate with surrounding lands. Revegetation is designed to control erosion and stabilize slopes against long-term erosion using plant materials capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer.

Revegetation relies on an adaptive management approach. Plant species selected for revegetation consist of native species known to occur on the quarry property. Preliminary species selection is shown in the tables below and includes species common in the area that have proven to be successful in past revegetation efforts. Depending on revegetative success, final species selection may include native plants observed within the greater quarry property.

Growth Medium Distribution:

Prior to revegetation, growth medium will be applied to approximately 542 acres of the site. Where container stock is installed on fill slopes, the target depth of growth medium is 12 inches, which is comprised of six inches of topsoil. Hydroseeded areas require six inches of growth medium comprised of three inches of topsoil. Of the 542 acres that will receive growth medium, a thickness of six inches of topsoil will be distributed over 28 acres of the site and a thickness of three inches of topsoil will be

distributed over 514 acres for a total volume of 206,475 CY. All growth medium will come from within the RPA boundary; however it must be transported from locations around the site to areas of final placement. To transport the material around the site a team of off-road haul trucks will be utilized and D8 dozer will be used to spread the material out. A dozer is preferred to distribute the topsoil over a wheel type tractor because its track impressions will imprint final slopes to retain seeds and increase water retention and infiltration, thereby increasing the potential for revegetative success.

Fixed Time	
Load Time	2 min
Dump Time	.5 min
Total	2.5 min

Cat 740 Production Rates	Avg (ft) Distance	Avg Grade (%)	Avg Time (min)	Round Trip Time (min)	Total Trip Time (min)	Trips per Hour
Site Average Loaded	3,500	4	2.1	3.4	5.9	10.1
Site Average Empty	3,500	4	1.3			

Cat 740 Operational Logistics	Trips/Hour	740 Capacity (heaped)	CY/Hr	CY Total	Job Efficiency	Truck Hours Required
Logistics	10.1	30 CY	303	206,475	83%	**821**

All costs to relocate and spread 206,475 CY of growth medium over areas of the site to be revegetated are included in the table below.

Equipment	Each	Rate	Hours	Total
Cat 988 Loader	1	$187.00	411	$76,857
Cat 740 Haul Truck	2	$167.71	821	$137,690
Water Truck	1	$44.22	411	$18,174
D8R Dozer	1	$198.48	411	$81,575
Loader Operator	1	$61.79	411	$25,396
Off-Road Haul Truck Driver	2	$52.16	821	$42,823
Water Truck Driver	1	$51.51	411	$21,171
Total Cost for Growth Medium Distribution				**$403,686**

Hydroseeding:

The tables below summarize the hydroseeding components and associated costs that will be incurred for revegetation of 565 acres. See Attachment 7 for a seed quote from Pacific Coast Seed.

General Hydroseeding Seed Mix

Scientific Name	Common Name	Lb/Acre	Price/Lb	Total Cost For 542 Acres
Artemisia californica	California sagebrush	16	$30.00	$260,160
Baccharis pilularis	coyote brush	20	$30.00	$325,200
Eriogonum fasciculatum	California buckwheat	20	$7.50	$81,300
Salvia leucophylla	purple sage	2	$80.00	$86,720
Salvia mellifera	black sage	3	$48.00	$78,048
Achillea millefolium	yarrow	2	$30.00	$32,520
Artemisia douglasiana	mugwort	1	$60.00	$32,520
Bromus carinatus	California brome	6	$6.50	$21,138
Elymus glaucus	blue wildrye	6	$13.50	$43,902
Eschscholzia californica	California poppy	2	$16.00	$17,344
Heterotheca grandiflora	telegraph weed	1	$60.00	$32,520
Lotus purshianus	Spanish clover	1	$70.00	$37,940
Lotus scoparius	deerweed	2	$30.00	$32,520
Lupinus nanus	sky lupine	1	$40.00	$21,680
Melica californica	California melic	2	$30.00	$32,520
Nassella pulchra	purple needlegrass	4	$36.00	$78,048
Poa secunda	one-sided bluegrass	2	$28.00	$30,352
Trifolium willdenovii	tomcat clover	2	$40.00	$43,360
Total		**93**		**$1,287,792**

Using mechanical hydroseeding equipment, finished slopes will be seeded, mulched, and composted in a single application. The hydromulch mix will contain compost, organic mulch, fertilizer and the seed mix. The compost provides an infusion of soil organic matter to the graded material that is richer in nutrients than the mulch. Organic matter provides a long-term source of nutrients, increases water holding capacity, and improves the texture of the soil.

Commercial fertilizers, intended for agricultural or ornamental applications, are inappropriate for restoration because they provide a strong flush of nutrients at concentrations rarely present in nature. The typical result is rapid growth of weedy grasses and herbs, which then may out-compete slower-growing chaparral species for sunlight and soil water. Biosol fertilizer is a slow-release fertilizer designed for restoration objectives, and provides a steady supply of major nutrients at relatively low concentrations.

Freedlun Hydroseeding provided a conservative cost quote for the hydroseed applications. The following cost includes all materials and labor required:

Area	Total Acres to Hydroseed	Hydroseed Slurry Application $/acre	Total Cost
Areas Disturbed from Mining	542	$1,350	$731,700
Total			$731,700

Bench Planting

In addition to hydroseeding trees and shrubs container plantings will occur on the benches . Approximately 28 acres of the total revegetation area in the EMSA and Rock Plant areas will be planted as tree and/or shrub container planting areas. Shrubs will be planted at approximately 4.5-foot spacing and trees at 9-foot spacing in the designated planting areas.

North-facing benches will be revegetated with approximately 6.5 acres of oak-dominated plantings along with hydroseed. A target quantity of approximately 1,745 oak trees is scheduled to be planted in these areas, in addition to other native tree species. The oaks will be a mixture of acorn and container plantings.

Common name	Scientific name	Unit Cost	Quantity per acre	Total Cost for 6.5 Acres
Pacific madrone	Arbutus menziesii	$2.02	50	$657
Grey pine	Pinus sabiniana	$2.38	50	$774
Coast live oak	Quercus agrifolia	$2.38	54	$835
Canyon live oak	Quercus chrysolepis	$2.38	54	$835
Blue oak	Quercus douglasii	$2.38	54	$835
Valley oak	Quercus lobata	$2.38	54	$835
Interior live oak	Quercus wislizenii	$2.38	54	$835
Mountain mahogany	Cercocarpus betuloides	$2.91	142	$2,686
Toyon	Heteromeles arbutifolia	$1.23	142	$1,135
Scrub oak	Quercus berberidifolia	$2.02	142	$1,864
California coffeeberry	Rhamnus californica	$1.61	142	$1,486
Redberry	Rhamnus californica	$1.61	142	$1,486
Hillside gooseberry	Ribes californicum	$1.61	142	$1,486
Chaparral currant	Ribes malvaceum	$1.61	142	$1,486
Total			**1264**	**$17,235**

East-facing benches comprise of approximately 21.5 acres will be planted with 75 percent (approximately 8,660) grey pine (*Pinus sabiniana*), along with 25 percent other native tree and shrub plantings common to oak woodland habitats.

Trees and Shrubs for Pine Woodland- East facing Benches				
Common name	Scientific name	Unit Cost	Quantity per acre	Total Cost for 21.5 Acres
Pacific madrone	Arbutus menziesii	$2.02	22	$955
Grey pine	Pinus sabiniana	$2.38	403	$20,622
Coast live oak	Quercus agrifolia	$2.38	22	$1,126
Canyon live oak	Quercus chrysolepis	$2.38	22	$1,126
Blue oak	Quercus douglasii	$2.38	22	$1,126
Valley oak	Quercus lobata	$2.38	22	$1,126
Interior live oak	Quercus wislizenii	$2.38	22	$1,126
Mountain mahogany	Cercocarpus betuloides	$2.91	142	$8,884
Toyon	Heteromeles arbutifolia	$1.23	142	$3,755
Scrub oak	Quercus berberidifolia	$2.02	142	$6,167
California coffeeberry	Rhamnus californica	$1.61	142	$4,915
Redberry	Rhamnus californica	$1.61	142	$4,915
Hillside gooseberry	Ribes californicum	$1.61	142	$4,915
Chaparral currant	Ribes malvaceum	$1.61	142	$4,915
Total			**1529**	**$65,673**

Planting shrubs and trees will require the efforts of four common laborers and two pickup trucks along with the oversight of a revegetation specialist. Labor and equipment included in the table below accounts for plantings on 28 acres of the site.

Item	Each	Rate/Hr	Hours	Total
Pickup Truck	2	$21.43	240	$5,143
Laborers	4	$46.92	480	$22,522
Revegetation Specialist	1	$85.00	120	$10,200
Total Costs for Planting				**$37,865**

Total Cost for Site Revegetation **$2,543,951**

2.5 Monitoring and Maintenance

A large number of trees and shrubs are proposed for planting within groupings of tree and shrub "islands" in areas of the EMSA and the Rock Plant. By planting a large number of trees and shrubs without irrigation, hearty trees and shrubs will be selected for increasing the chances of their survival. Approximately twice as many trees and shrubs will be planted than the total required to meet performance standards for this area of the site. Based on the preliminary results of test plots at the site and the strategy of planting "extra" trees and shrubs, the amount of replacement plantings required to meet performance standards are expected to be minimized. The costs for replacement plantings were estimated by the biological consultant and are incorporated into the total amount for annual weed control and general maintenance.

A restoration biologist will monitor the revegetated areas three times each year (spring, summer, and fall), and provide an annual report to Lehigh and Santa Clara County. The annual report will specifically assess the following:

- Numbers of trees surviving on each planted bench and slope unit
- General size and condition of trees
- General condition and extent of brush and herbaceous cover
- Overall progress toward a stable, natural plant community and towards meeting performance standards
- Noxious weed growth

The annual report should describe all actions taken during the preceding year and include recommendations for the upcoming planting season.

After planting, the area will be monitored and controlled to ensure unwanted plants do not threaten the success of revegetation efforts. The plants that are considered problematic are found on the California Invasive Plant Council's weed inventory (Cal-IPC 2006). Noxious weeds present at the quarry include, but are not limited to: yellow star thistle (*Centaurea solstitialis*, annual); black mustard (*Brassica nigra*, annual); pampas grass (*Cortaderia sp.*, annual); and fennel (*Foeniculum vulgare*, perennial).

The site will be managed to prevent the spread of noxious weeds. At a minimum, monitoring will occur annually until performance standards have been met for two consecutive years (estimated at 5 years) by means of visual observation to identify the potential for uncontrolled weed propagation. Should weed control be necessary, cultural methods will be implemented to eliminate the spread of noxious species.

In addition to biological monitoring and maintenance, costs for geologic and water quality monitoring are also included in the table below. Geotechnical monitoring will encompass backfilling and inspection of all final slopes within the RPA boundary. These areas include the North Quarry high wall, scenic easement landslide, as well as other areas of the site. The costs below are based on personal communication with the biological and geological consultants who are familiar with the site.

Cost Item	Hours	Rate	Total
Annual Monitoring (Scientist/Tech)	130	$108	$14,040
Annual Monitoring (Project Manager)	12	$128	$1,536
Geologic Monitoring (Geologist)	40	$128	$5,120
Water Quality Monitoring (QSP)	120	$108	$12,960
Water Quality Monitoring (QSD)	40	$128	$5,120
Report Preparation (Scientist/Tech)	50	$108	$5,400
Report Preparation (Project Manager)	10	$128	$1,280
Annual Weed Control and General Maintenance			$123,000
Total Annual Monitoring and Maintenance Costs			$168,456
Total 5-Year Monitoring and Maintenance Costs			$842,280

In addition to revegetation monitoring and maintenance, earthwork maintenance will be required for the five (5) year period following completion of reclamation activities. Earthwork maintenance will consist of maintaining and repairing slopes that are affected by uneven settling or erosion; specifically, areas of the North Quarry where backfilling has occurred, settling of fill material may occur. To maintain drainage and reclamation contours minor grading work is expected. Earthwork maintenance is expected to reduce as time passes with the greatest level of effort coming the first year after reclamation work is complete. No reclamation work is expected the in year six (6) following reclamation grading completion. A dozer will be utilized to recontour slopes and provide compaction of material as it operates. The dozer will also create a rough surface from the track impressions that will be beneficial for revegetation success. Revegetation maintenance costs for areas disturbed during earthwork maintenance are addressed in this section in the previous table. Costs in the table below only account for earthwork maintenance.

Monitoring Year	Hours of Grading Required
1	80
2	60
3	40
4	20
5	10
6	0
Total	**210**

Task	Hours	Rate	Total Cost
Grading with a D8R	210	$198.48	$41,681
Operator Cost	210	$61.79	$12,976
Total Cost for Grading			**$54,657**

Total Cost for Monitoring and Maintenance **$896,937**

3.0 DIRECT COST OF RECLAMATION SUMMARY

Task	Cost
Removal of Equipment, Structures, & Rubbish	$84,667
Site Grading	$43,874,024
Permanente Creek Reclamation Area	$545,273
Revegetation	$2,543,951
Revegetation Monitoring and Maintenance	$896,937
Total Direct Reclamation Costs	**$47,944,852**

4.0 INDIRECT COST OF RECLAMATION

Item	Cost
Supervision Expense @ 2.3%	$1,102,732
Profit & Overhead Expense @ 3.8%	$1,821,904
Contingencies @ 4%	$1,917,794
Mobilization Expense @ 1.8%	$863,007
Total Indirect Cost	**$5,705,437**

5.0 SUBTOTALS

Total Direct Reclamation Costs	$47,944,852
Total Indirect Costs	$5,705,437
Total Direct and Indirect Cost of Reclamation	$53,650,289
Lead Agency Administrative Costs @ 2%	$1,073,006
Total Reclamation Costs	**$54,723,295**

TOTAL COST OF RECLAMATION **$54,723,295**

Attachment 1

AGGREGATE MACHINERY SPECIALIST

January 22, 2014

Mr. Warren Coalson
ENVIROMINE
3511 Camino Del Rio South
Suite 403
San Diego, CA 92108

SUBJECT: Lehigh Hanson Permanente
Quote #: 1401-1002-TO

Dear Mr. Coalson,

At the request of Mr. Damien Galford, (707) 253-1723, we are updating Sections I, II and III of our previous budget quotation of October 24, 2012.

Please notify your client that these are budget prices and subject to confirmation at time of Request for Quotation.

Do not hesitate in contacting us if we can be of service.

Very truly yours,

AGGREGATE MACHINERY SPECIALIST

John F. Mulligan

Cc: T. ONeill
J.C. Mulligan

924 Calle Negocio, Unit A. ◊ San Clemente, CA 92673 ◊ Phone: (949) 366-3070 ◊ Fax: (949) 366-3069
www.aggregatemachinery.net

ENVIROMINE
Hanson Permanente Reclamation

January 22, 2014

ITEM I PRIMARY STATION

A. *LIPPMANN-Milwaukee, Inc.* J3862-VGF6224 Portable Electric Primary Jaw Crushing Plant, with the following specifications:

One (1)*LIPPMANN-Milwaukee, Inc.* Heavy-Duty Jaw Crusher, Model 38 x 62 with the following specifications:

LIPPMANN-Milwaukee heavy-duty jaw crushers have

- An extra heavily ribbed steel frame - stress relieved after welding and before machining;
- One-piece steel pitman;
- Heat-treated forged alloy steel eccentric shaft;
- Oversized tapered roller bearings in both the pitman and frame. Tapered roller bearings exhibit a greater load-carrying capacity than equal size spherical roller bearings that are used in most competitor's machines.
- Reversible manganese steel jaw dies and extensions;
- Hardox steel cheek plates;
- Manual hydraulic toggle adjustment;
- Two heavy-duty flywheels, one grooved for v-belts.
- Includes a 300 hp NEMA C high starting and breakdown torque TEFC electric motor for the crusher (starter, wiring and controls not included in base price of portable plant.

The 38x62 crusher includes an Automatic Oil Lubrication System

- Delivers a metered flow of filtered oil to each bearing.
- Low oil pressure alarm system.
- 20 gallon reservoir.
- 1/2 gpm oil pump with a 1 hp, 230/460 volt electric motor (starter and wiring not included), flow regulating valve, pressure gauge, piping, flow sights for return lines, immersion heater, and controls.
- Slide on and slide off feeder hopper module is a flared-type hopper with 3/4" HARDOX steel plate sides.

LIPPMANN-Milwaukee, Inc. 62" x 24' Vibrating Grizzly Feeder (Rip Rap Style), with the following specifications:

One (1) LIPPMANN-Milwaukee Heavy-Duty Horizontal Vibrating Grizzly Feeder, 62" Wide and 24' long, with the following specifications:

- 1 1/4" thick steel feeder pan, 14' feet long, with 1/2" thick Hardox steel liners on pan and 3/8" thick Hardox liners on side plates of feeder.
- (2) 5' long step deck grizzly section with adjustable bars and 2-1/2" to 4-1/2" nominal openings. The second section will have grizzly bars with nominal openings 5"-7" on discharge end.

- Vibrating mechanism is a model LLH-26 with two full-length, self-counterweighted solid steel shafts
- Helical gears
- Four (4) 130 mm spherical roller bearings
- Oil splash lubrication system.
- Mechanism is enclosed in a dust proof housing.
- Driven sheave is included, in base price of the feeder.

The base plant includes
- 60" x 34' (approx.) front discharge conveyor with 3 ply belting and 5" CEMA C idlers.
- Includes a (1)25 hp 1800 rpm TEFC electric motor.
- The plant has a by-pass chute under the grizzly section of the feeder.

The steel truck frame with king-pin (without front dolly) includes:
- Quad axle Hutch suspension with sixteen (16) Hub Piloted Wheels.
- 11:00 x 22.5 radial tubeless tires, and air brakes.
- Also includes all necessary chutes and supports, support legs, guards for v-belt drives, operator's platform with railing and ladder, tail lights, reflectors, directional signals, mud flaps.

BUDGET PRICE: fob Point of Manufacture **$885,000.00**

OPTIONS / ACCESSORIES

1. Hydraulic leveling jacks, six (6) 70,000 lb., 24" stroke with an 8 Hp gas power unit.

ADD: **$ 49,500.00**

2. NEMA - 12 Motor Control Center with dust-tight enclosure and full voltage magnetic starters for 60 hp (feeder), (1) 25 hp (front discharge conveyor), and 3/4 hp (Autolube System) motors with:
   - Circuit protection.
   - Also included is as solid state starter and circuit breaker for the 300 hp (crusher) electric motor.
   - Start/stop push buttons and wiring from the control center to the electric motors (30/60/460 volts).

ADD: **$ 46,650.00**

3. One (1) 60 hp, *Altivar* (Square D) AC electric variable speed drive and controls.
   - AC variable speed drive controller
   - Remote control station with 50' pendant cable, and motor circuit breaker.
   - Please note that this drive option includes an electric motor as noted in Option B. above.

ADD: **$ 17,850.00**

4. Hydraulic Toggle Assembly

ADD: $ 64,000.00

B. DUST COLLECTOR

1. DCE Model DLMV 60/15 Type F (H + K11- 10 Hp Integral Fan) Base Model

- Finish cost: standard finish
- Seal frame assembly (tube sheet): standard –mild steel
- Inserts: mild steel
- Filter bags: Dura-Life™ Polyester
- Control Box with Timer: with solenoids (NEMA 4 ENCL)
- Pressure gauge: Magnehelic
- Motor options: fan rotation
- Compressed air components: piggyback filter and regulator
- Housing assembly (upstands): vertical, unmounted
- Clamp assembly: standard

PRICE: fob Louisville, KY **$ 35,200.00**

2. Mounting

Designed to be installed on the discharge conveyor.

Vertical mounting support, corrugated metal conveyor covers, discharge head box for conveyor.

PRICE: fob Factory **$ 15,800.00**

TOTAL: **$ 51,000.00**

SUMMARY ITEM I

Primary	$ 885,000.00
Leveling Jacks	$ 49,500.00
Motor Controls	$ 46,650.00
Variable Speeds	$ 17,850.00
Hydraulic Toggle	$ 64,000.00
Dust Collector	$ 51,000.00
Subtotal:	**$1,114,000.00**
8.25% Sales Tax:	$ 91,900.00
Freight:	$ 61,100.00
TOTAL:	**$1,267,000.00**

II. CONVEYOR SYSTEM

Superior 42"x 2375' Ground Line Channel Conveyor (4)

Conveyor Frame

Intermediate frame	8" Channel, Bolt in cross members

Drive specifications

Drive	Class I tail end 300HP
Gear reducer	Falk Drive
Brake	Svendborge Brake
Motor	300 HP 1800 RPM TEFC
V-belt drive	with drive guard
Capacity	2000 STPH of 100 PCF material, 25 degree surcharge (90% fines, 10% spherical lumps 6" minus), @ 212' of decline
Belt speed	600 fpm

Superior pulleys, crown face unless stated otherwise

Drive/Tail pulley	42" diameter, 3/8" herringbone lagged Eng. drum
Snub pulley	36" diameter, 1/4" smooth lagged Eng. drum
Head pulley	32" diameter, Engineered drum
Shafts	Turned and polished
Bearings	split house
Take ups	Gravity Tower at tail end
Bend pulleys	32" diameter, 1/4" smooth lagged Eng. drum
Take-up pulley	32" diameter, 1/4" smooth lagged Eng. drum
Weight	Provided by others

Stationary

Conveyor splice	conveyor unassembled for shipment
Supports	Fabricated from structural steel, 2' tall on 20' spacing, 8' discharge height

Conveyor Components

Belting	4-ply-3/8x1/4 1200PIW
Belt splice	Flexco mechanical steel fasteners
Primary cleaner	Superior Exterra® Primary Belt Cleaner
Secondary cleaner	Superior SFL Dual Scraper
V-plow	Superior V-plow on return side
Superior Idlers	CEMA D, 5" dia. rolls, sealed for life ball bearings
Load area	20° trough, 16" spacing
Trough	35° on 3' 4" spacing

Returns	steel rolls, on 10' spacing
Self Aligning	50' from ends every 100' after
Receiving hopper	sloped, 5' long, bolt on design
Gathering trough	with adjustable rubber flashing
Discharge hood	1/4" AR liner
Covers	not included
Emergency Stop	not included

Additional Specifications

Guarding	for drive and tail pulleys, v-belt drive and return idlers. Guards may not meet all local codes; customer is responsible to have guarding inspected.
Electrical	Control panel and wiring not included
Paint	1 coat primer, 1 coat enamel
Cross members	powder coated Superior Orange
Idler Paint	powder coated Superior Orange
Owner's Manual	(1) copy included for operation and maintenance.

BUDGET PRICE: fob Point of Manufacture **$1,450,000.00 each**

LOT OF FOUR: **$5,800,000.00 each**

OPTIONS / ACCESSORIES

1a. Emergency stop switch, cables, brackets for one side.

ADD: **$ 14,500.00 per conveyor**

LOT OF FOUR: **$ 58,000.00**

1b. Emergency stop switch, cables, brackets for both sides.

ADD: **$ 29,225.00 per conveyor**

LOT OF FOUR: **$ 116,900.00**

2. Head end discharge hood, with replaceable ¼" AR liners.

ADD: **$ 4,250.00 per conveyor**

LOT OF FOUR: $ 17,000.00

ITEM II SUMMARY

Lot of Four Conveyors	$5,800,000.00
Stop Switches – Both Sides	$ 116,900.00
Discharge Hood	$ 17,000.00
8.25% Sales Tax:	$ 474,100.00
Freight:	$ 200,000.00
TOTAL:	**$6,408,000.00**

III. RADIAL STACKER

Superior 36" x 190' Swing Axle TeleStacker® Conveyor

Conveyor frame

Truss design	Heavy-duty truss, designed for maximum strength / weight ratio
Main conveyor	100' long with 84" deep truss
Stinger	100' long with 66" deep truss
Extension	conveyor extends to 190' long with hydraulic cable winch
Safety stop	mechanically stops retraction in the event of cable failure

Drive specifications (Main / Stinger)

Drive	Class I head end
Gear reducers	shaft mount
Backstops	installed in reducers
Motors	60 HP / (2) 30 HP 1800 RPM TEFC
V-belt drive	with drive guard
Capacity	1500 STPH of 100 PCF material, 25 degree surcharge (90% fines, 10% spherical lumps 8" minus)
Belt speed	450/600 fpm

Superior pulleys

Drive pulleys	24" diameter, 3/8" herringbone lagged drum
Tail pulleys	18" diameter, CEMA Chevron® wing pulley
Auto greaser	included
Shafts	Turned and polished
Bearings	Sealmaster - Browning
Take ups	Screw type

Portability

Undercarriage	Patented FB® Undercarriage, with hydraulic raise cylinders, pumping unit, and covers
Axle type	Pit Portable Axle
Transport axle	(8) 385/65D-19.5 tires, walking beam
Tag axle	not included
Axle Jacks	not applicable
Radial axle	transport axle manually swings to stacking position
Radial travel	2 wheel drive with 2 Hp planetary on each wheel
Fifth wheel	not applicable
Anchor pivot	customer-supplied concrete base secures tail end during radial travel
Brakes	not applicable
Lights	not applicable
Mud flaps	not applicable
Landing gear	not applicable
Towing eye	not included

Conveyor Components

Belting	3-ply 3/16 x 1/16 330 PIW
Belt splice	Flexco mechanical steel fasteners
Primary scrapers	included
Secondary scrapers	requires primary
Superior Idlers	CEMA C, 5" dia. Moxie® rolls (trough), sealed for life ball bearings
Load area (main)	Superior Seal System, with 10" cartridges and steel rollers
Trough	35° (3.5' main / 4' stinger spacing)
Returns	steel cans, on 8' spacing
Self-aligning	Steel can troughing aligner on main / Superior Navigator® on stinger
Radial hopper	Rock box style
Gathering trough	6' long with adjustable rubber flashing

Controls

Control system	Manual - electric buttons control power travel, conveyor raise, and stinger extension
Cable carrier cover	protect carrier from fugitive material
Matl. flow switch	not included, requires PilePro automation
Wireless remote	not included
Zero Speed Sensor	on stinger conveyor only
Voltage	480 v / 3 ph / 60 hz
Electrical	enclosure with main disconnect, circuit breaker, and starters with on/off push buttons to control each electric motor

Additional Specifications

Startup	on-site training not included
Guarding	for drive and tail pulleys, v-belt drive and return idlers. Guards may not meet all local codes; customer is responsible to have guarding inspected.
Paint	1 coat primer, 1 coat finish enamel Beige
Idler Paint	powder coated Superior Orange
Owner's Manual	(1) copy included for operation and maintenance

BUDGET PRICE: fob Point of Manufacture **$ 650,000.00 per conveyor**

OPTIONS / ACCESSORIES - INCLUDED

1. Belt scrapers on main and stringer conveyors
2. Urathon return idlers, self-cleaning
3. Spray bar on head end of main frame, with flood nozzles, water supply line down to tail section, control valve
4. PilePro Automation – hydraulic functions are controlled by PLC parameters inputted by the operator, or may be manually controlled by switches in the control panel.
5. Sonic Scout ultrasonic sensor, stops power travel when belt is empty
6. PilePro Wireless Remote operates hydraulic functions from up to 1000' feet away.
7. Auto Grease System for head pulley only.
8. On-board Counterweight, maintains tail end during radial travel
9. Mine Duty Pulleys

ITEM III SUMMARY

Stacker	$650,000.00
8.25% Sales Tax:	$ 53,625.00
Freight:	$ 31,375.00
TOTAL:	**$735,000.00**

TOTAL ITEMS I, II and III **$8,410,000.00**

Prices valid until June 30, 2014. Freight is estimated based on current rates and would be invoiced at our actual cost. Sales tax is included and shown at 8.25%. Sales tax would be charged at the appropriate rate. Terms to be arranged.

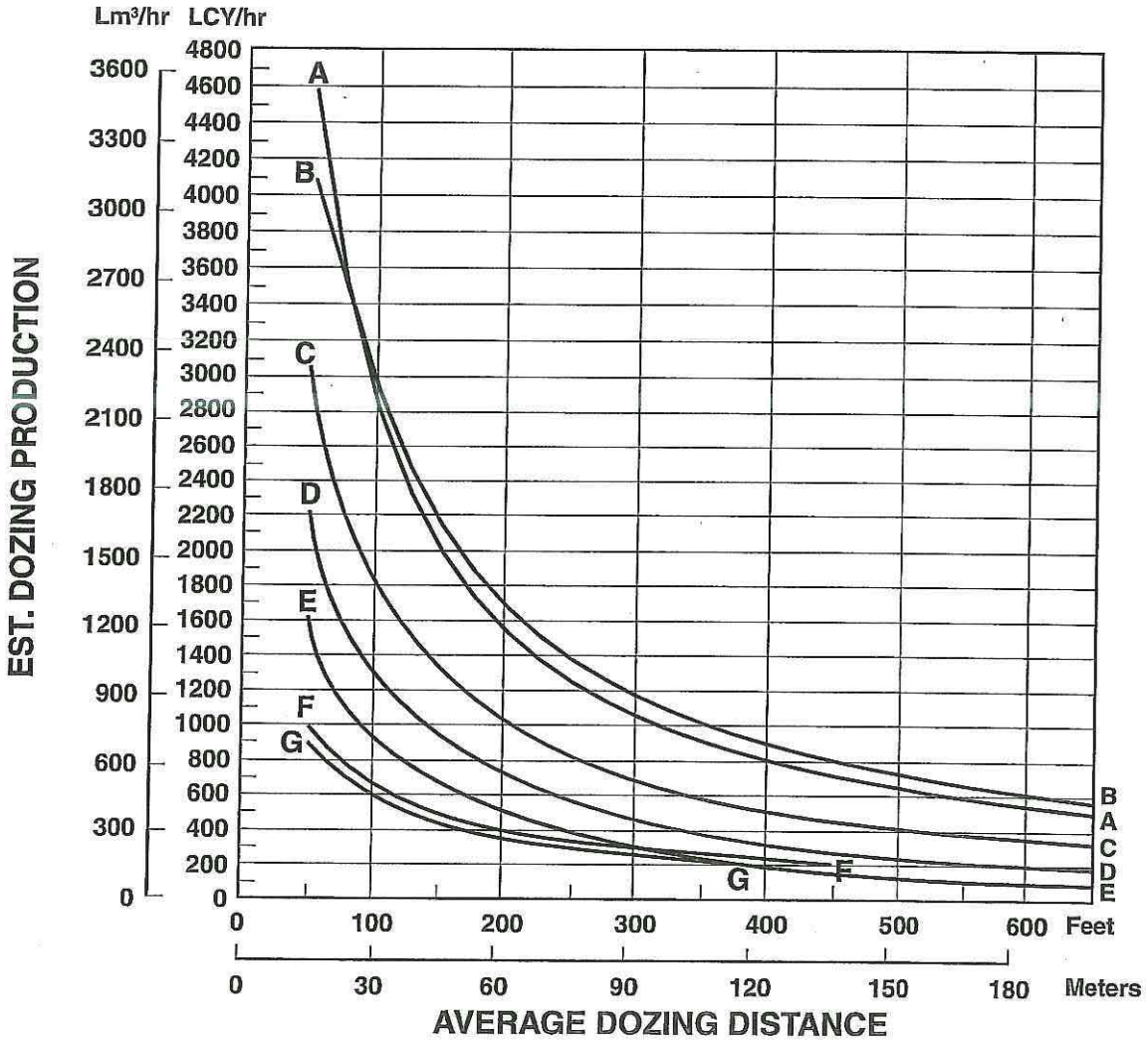
Delivery would be as follows:

Conveyors	14 – 18 weeks
Stacker	8 – 10 weeks

J.F. Mulligan
January 22, 2014

Attachment 2

ESTIMATED DOZING PRODUCTION • Universal Blades • D7G through D11T



KEY

A — D11T-11U
B — D11T CD
C — D10T-10U
D — D9R/D9T-9U
E — D8R/D8T-8U
F — D7R Series 2-7U
G — D7G-7U

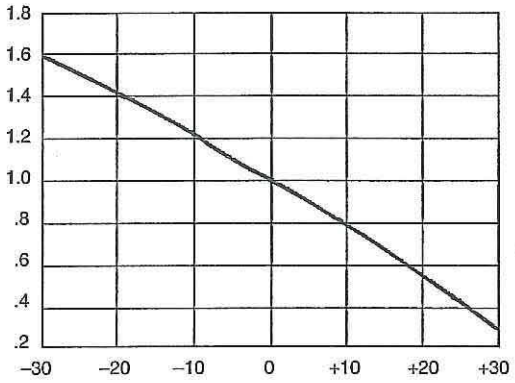
NOTE: This chart is based on numerous field studies made under varying job conditions. Refer to correction factors following these charts.

JOB CONDITION CORRECTION FACTORS

	TRACK-TYPE TRACTOR	WHEEL-TYPE TRACTOR
OPERATOR —		
Excellent	1.00	1.00
Average	0.75	0.60
Poor	0.60	0.50
MATERIAL —		
Loose stockpile	1.20	1.20
Hard to cut; frozen —		
with tilt cylinder	0.80	0.75
without tilt cylinder	0.70	—
Hard to drift; "dead" (dry, non-cohesive material) or very sticky material	0.80	0.80
Rock, ripped or blasted	0.60-0.80	—
SLOT DOZING	1.20	1.20
SIDE BY SIDE DOZING	1.15-1.25	1.15-1.25
VISIBILITY —		
Dust, rain, snow, fog or darkness	0.80	0.70
JOB EFFICIENCY —		
50 min/hr	0.83	0.83
40 min/hr	0.67	0.67
BULLDOZER*		
Adjust based on SAE capacity relative to the base blade used in the Estimated Dozing Production graphs.		
GRADES — See following graph.		

*NOTE: Angling blades and cushion blades are not considered production dozing tools. Depending on job conditions, the A-blade and C-blade will average 50-75% of straight blade production.

% Grade vs. Dozing Factor
(–) Downhill
(+) Uphill



ESTIMATING DOZER PRODUCTION OFF-THE-JOB

Example problem:

Determine average hourly production of a D8T/8SU (with tilt cylinder) moving hard-packed clay an average distance of 45 m (150 feet) down a 15% grade, using a slot dozing technique.

Estimated material weight is 1600 kg/Lm³ (2650 lb/LCY). Operator is average. Job efficiency is estimated at 50 min/hr.

Uncorrected Maximum Production — 458 Lm³/h (600 LCY/hr) (example only)

Applicable Correction Factors:

Hard-packed clay is "hard to cut" material –0.80
Grade correction (from graph) . . . . . –1.30
Slot dozing . . . . . –1.20
Average operator . . . . . –0.75
Job efficiency (50 min/hr) . . . . . –0.83
Weight correction . . . . . (2300/2650)–0.87

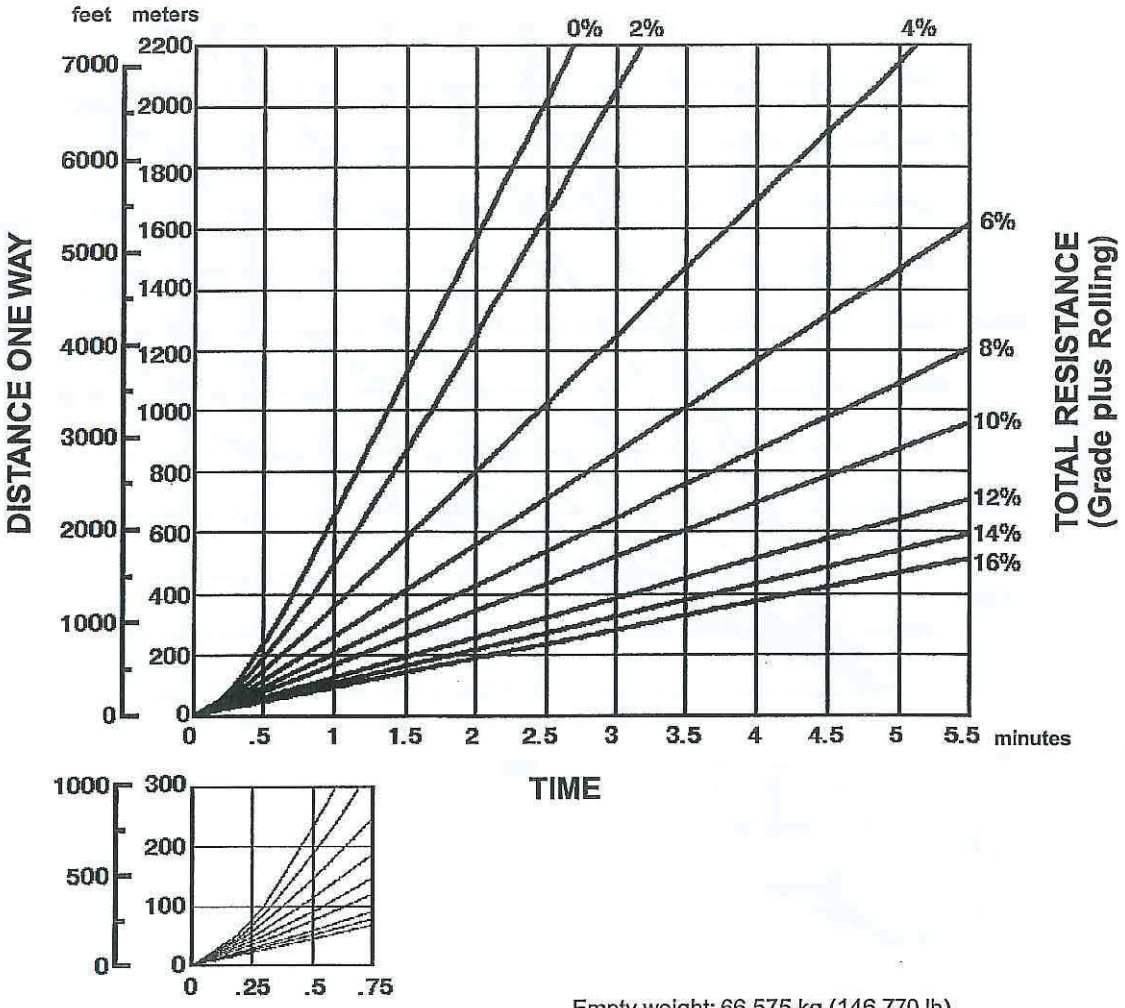
Production = Maximum Production × Correction Factors
= (600 LCY/hr) (0.80) (1.30) (1.20) (0.75) (0.83) (0.87)
= 405.5 LCY/hr

To obtain production in metric units, the same procedure is used substituting maximum uncorrected production in Lm³.

= 458 Lm³/h × Factors
= 309.6 Lm³/h

Attachment 3

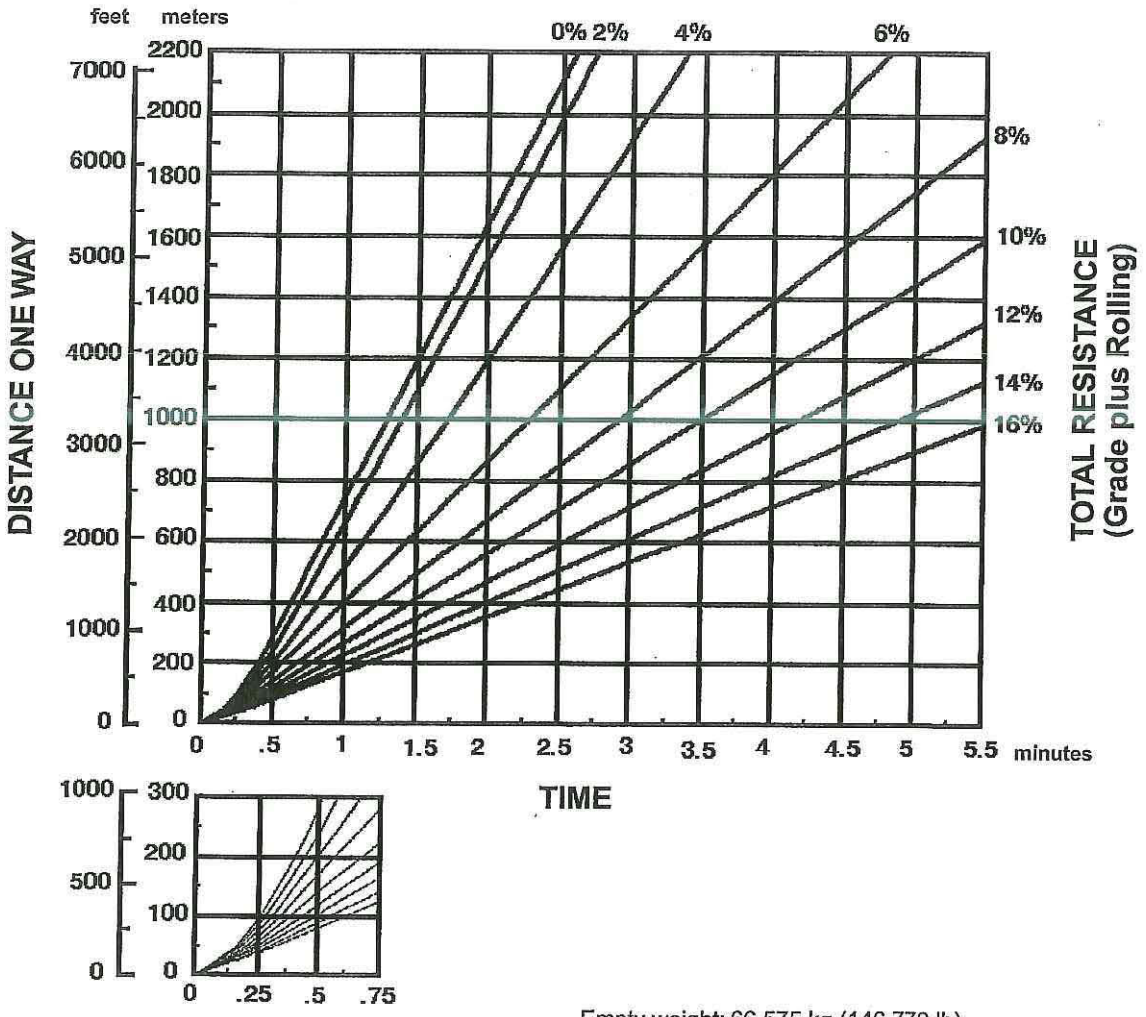
LOADED



Empty weight: 66 575 kg (146,770 lb)
Payload: 47 175 kg (104,000 lb)

8

EMPTY



Empty weight: 66 575 kg (146,770 lb)

Attachment 4

Invoice

WRA
2169-G East Francisco Blvd
San Rafael, CA 94901
Phone: 415-454-8868
Fax: 415-454-0129

wra
ENVIRONMENTAL CONSULTANTS

Accounts Payable
Lehigh Hanson, Inc.
PO Box 639069
San Diego, CA 92163

September 30, 2012
Invoice No: 16143-4 - 16752

Manager Sean Avent

Project 16143-4 Permanente Conditions of Approval Compliance

Professional Services for the Period:September 01, 2012 to September 30, 2012

WRA Phase 01 COA Assistance PO 4500509571

Prepare erosion control plan and safety plans. Conduct research on methods to seal limestone. Strategize creek boulder removal. Coordinate team and subcontractors. MSHA training. Procure equipment. Meet with quarry manager. Conduct site visit for erosion control issues and EMSA walk-through. Scheduling and correspondence with CCW. Site visits to meet with quarry staff and check on BMP crew progress. Materials quote for Lehigh ordering procedures. Attend SCC meeting. Meet with Dan Z and Ron Pioki. Prepare submittals 4 and 5. GIS figure production. Conference calls regarding BMP plan and approach. Project management.

Task 01 Default

Labor

	Hours	Rate	Amount	
Principal				
Greer, Philip	.50	154.00	77.00	
Maloney, Sherry	1.25	171.00	213.75	
Smick, Geoffrey	10.00	148.00	1,480.00	
Scientist				
Avent, Sean	127.25	107.00	13,615.75	
Yakich, Jason	3.00	107.00	321.00	
GIS/ CAD Senior Technician				
Rochelle, Michael	2.75	103.00	283.25	
Senior Technician				
Krapek, John	32.25	101.00	3,257.25	
Technician				
Brandt, Reuben	27.00	90.00	2,430.00	
Clerical Support				
Portillo, Perrine	.50	75.00	37.50	
Totals	204.50		21,715.50	
Total Labor				**21,715.50**
Subconsultants				
Central Coast Wilds			76,368.86	
Total Subconsultants			76,368.86	76,368.86
Reimbursable Expenses				
Expenses			4,702.43	

LEHIGH
HEIDELBERGCEMENT Group

PURCHASE ORDER

NUMBER: 4500509156 PAGE: 1 / 1
DATE: 09/26/2012

INVOICE TO:
Lehigh Southwest Cement Company
SSC AP - Cement
PO Box 660140
Dallas, TX 75266-0140
Phone: 877-534-4442
Fax: 972-819-1721
Email: ssa-ap@lehighcement.com

SHIP TO:
Cupertino Plant
Lehigh Southwest Cement Company
24001 Stevens Creek Blvd.
CUPERTINO CA 95014

408-996-4000
408-252-2316

VENDOR:
134401
PACIFIC COAST SEED
533 HAWTHORNE PLACE
LIVERMORE CA 94550

925 373 4417
925 373 6855 FAX

CONTACT PHONE - 408-996-4222
SHIPPING TERMS -
SHIPPING POINT -
PAYMENT TERMS - Net 55 Days

FAXED 9/26/12

Please acknowledge receipt of this PO, and confirm pricing and delivery dates.
Attn: Lawan Ahmed, by Phone at 408-996-4221, Fax 408-996-4107 or email :
Lawan.Ahmed@LehighHanson.com

To ensure timely invoice and payment processing, please refer to Lehigh#s Purchase Order number on all invoice documents.

Item	Order Qty/UoM	Material Part Number Description	Price per Unit Tax Status	Net value Delivery Date
1	1.000 Lot		33,250.00 Taxable	33,250.00 09/27/2012
	2012 RPA - Pacific Coast Seed - G/L Account: 420900 2012 RPA implementation - hydroseeding and seed mixture			
		Total net value excl. tax USD		33,250.00

** This Purchasing Document is Subject to the Terms & Conditions included in the next page.

THE PROVISIONS OF SECTION 202 OF THE EXECUTIVE ORDER 11245 ARE INCORPORATED HEREIN BY REFERENCE AND SHALL BE APPLICABLE TO THIS AGREEMENT UNLESS THIS AGREEMENT IS EXEMPTED UNDER RULES, REGULATIONS OR ORDERS OF THE SECRETARY OF LABOR.

X

Project	16143-4	Permanente Conditions of Approval Compli	Invoice	16752
	Total Reimbursables		**4,702.43**	**4,702.43**
		Task Total		**$102,786.79**
		WRA Phase Total		**$102,786.79**
		Total Project Invoice Amount		**$102,786.79**

Central Coast Wilds
Ecological Concerns Inc
125 Walk Circle
Santa Cruz, CA 95060
Office: (831) 459-0656 Fax: (831)457-1606

Invoice

Invoice #: 22332
Invoice Date: 10/19/2012

Bill To:
WRA, Inc.
2169-G East Francisco Blvd.
San Rafael, CA 94901

Service Period	Project	Contract No.	Terms
	Permanente Quarry BMP Installa...		Contract

Description	Hours/Qty	Rate	Amount
Erosion Control Labor	841	65.00	54,665.00
Erosion Control - Materials	1	4,316.57	4,316.57
10% Surcharge	1	431.66	431.66
		Total	$59,413.23

Central Coast Wilds
Ecological Concerns Inc
125 Walk Circle
Santa Cruz, CA 95060
Office: (831) 459-0656 Fax: (831)457-1606

Invoice

Invoice #: 22278
Invoice Date: 9/28/2012

Bill To:

WRA, Inc.
2169-G East Francisco Blvd.
San Rafael, CA 94901

Service Period	Project	Contract No.	Terms
	Permanente Quarry BMP Installa...		Contract

Description	Hours/Qty	Rate	Amount
Erosion Control Labor	802	65.00	52,130.00
Erosion Control Materials - See attachment	1	15,723.85	15,723.85
10% Surcharge	1	1,572.39	1,572.39
		Total	$69,426.24

Attachment 5

Pacific Coast Seed Inc.

Damien L. Galford
Enviromine, Inc.
3251 Beacon Boulevard, Suite 100
West Sacramento, CA 95691

July 1, 2013

Re: Permanente Quarry Cupertino

Dear Mr. Galford:

Thank you for contacting Pacific Coast Seed, Inc. as your seed supplier for the above referenced project. We anticipate that we will have the below listed seed in sufficient quantities to seed the ~48 acres located in Cupertino, CA. The below items have been priced assuming the seed is provided on a Standard Commercial Quality basis. These items will be mixed and labeled in accordance with California and Federal Seed Laws and consist of the following:

Table 1:

SCIENTIFIC NAME	COMMON NAME	Pounds Per Acre Bulk Seed	Cost Per Pound Bulk Seed
SHRUBS			
Artemisia californica	coastal sagebrush	10	$30.00
Baccharis pilularis	coyotebrush	6	$30.00
Eriogonum fasciculatum	Eastern Mojave buckwheat	16	$7.50
Lotus scoparius	deer weed	2	$30.00
Salvia mellifera	black sage	4.3	$48.00
GRASSES AND HERBS			
Achillea millefolium	common yarrow	2	$30.00
Artemisia douglasiana	Douglas' sagewort	1.9	$60.00
Bromus carinatus	California brome	10	$6.50
Clarkia purpurea ssp. quadrivulnera	winecup clarkia	1	$60.00
Elymus glaucus	blue wildrye	6	$13.50
Heterotheca grandiflora	telegraph weed	1	$60.00
Lotus purshianus	Spanish Clover	3.6	$70.00
Plantago erecta	dotseed plantain	3	$30.00

Sisyrinchium bellum	western blue-eyed grass	1.4	$90.00
Vulpia microstachys	small fescue	10	$18.00

Table 2:

Scientific Name	Common Name	Lb/Acre	Price/Lb
Artemisia douglasiana	mugwort	2	$60
Carex barbarae	valley sedge	3	$90
Carex praegracilis	field sedge	3	$95
Cyperus eragrostis	tall flatsedge	6	$120
Hordeum brachyantherum	meadow barley	18	$18
Juncus effusus	bog rush	1	$100
Juncus patens	common rush	1	$120
Leymus triticoides	creeping wildrye	6	$55
Total		40	

Please provide a purchase order by June 1st on the year preceding that in which the seed purchase is intended. Some items may require extra collections be made in advance to assume supply of the quantities requested.

Thank you again for consulting Pacific Coast Seed, Inc. as your seed supplier for this project. We look forward to working with you on future projects.

Sincerely,

Pacific Coast Seed, Inc

Patricia Gomez
Operations Manager

Attachment 6

FREEDLUN HYDROSEEDING INC

518 BAYWOOD CT, VACAVILLE, CA 95688

LICENSE #740810

800-300-9423 707-448-9423

FAX 707-446-8146

DEAN@FREEDLUN.NET OR TERRI@FREEDLUN.NET

Price Quote

July 31, 2013
Damien L. Galford
EnviroMine, Inc.
RE: Reclamation Cost Estimate

Hello Damien
Please find our updated pricing for the following BFM products:
Hydroseed using Flexterra: 20+ acres @ $4,951.00 per acre
Hydroseed using HydroBlanket: 20 + acres @ $4,600.00 per acre
Both products shall be applied @ 4,000 lbs/acre

This quote is for one application. Should more applications be required, additional charges will apply. Full payment of the quoted price is due within 30 days of application. Late payments will incur an additional fee of 1.5% per month.
This quote assumes customer will provide legal access to the property and to an ample water supply. If no water is available, let us know. This quote excludes any soil prep, soil amendments, any guarantee of growth, watering, weeding, or maintenance. The seed we purchase is determined by the details you have provided and authorized above, and is State inspected for germination percentages.
If a payment & performance bond is required, our rate is 3%. Unless we have been notified of such requirement in writing, the cost of any bond is not included in our quote, and will be added to the final quoted price. Our company is SB/MICRO certified through the State of California. Init. ____

Due to the changing prices of seed, the quoted price is good for 60 days. Let us know if you want to 'Lock-in' a price for a date more than 2 months away.

To accept this proposal, initial where indicated, sign and date below & fax back to 707-446-8146. Once accepted, this quote will become a contract.
In any legal action undertaken to enforce its terms, the successful party will be entitled to any and all attorney fees and legal costs incurred in connection with such an enforcement action.

x_____ Date_____ **Initial Required Above**

Printed name_____Title_____

Attachment 7

Pacific Coast Seed INC.

Damien L. Galford
Enviromine, Inc.
3251 Beacon Boulevard, Suite 100
West Sacramento, CA 95691

June 28, 2013

Re: Permanente Quarry Cupertino

Dear Mr. Galford:

Thank you for contacting Pacific Coast Seed, Inc. as your seed supplier for the above referenced project. We anticipate that we will have the below listed seed in sufficient quantities to seed the ~542 acres located in Cupertino, CA. The below items have been priced assuming the seed is provided on a Standard Commercial Quality basis. These items will be mixed and labeled in accordance with California and Federal Seed Laws and consist of the following:

Table 1:

SCIENTIFIC NAME	COMMON NAME	Pounds Per Acre Bulk Seed	Cost Per Pound Bulk Seed
	SHRUBS		
Artemisia californica	coastal sagebrush	16 (8) *	$30.00
Baccharis pilularis	coyotebrush	20 (6) *	$30.00
Eriogonum fasciculatum	California buckwheat	20 (10) *	$7.50
Salvia leucophylla	Purple sage	2 *	$80.00
Salvia mellifera	black sage	3	$48.00
	GRASSES AND HERBS		
Achillea millefolium	common yarrow	1	$30.00
Artemisia douglasiana	Douglas' sagewort	1 (2) *	$60.00
Bromus carinatus	California brome	6 (8)	$6.50
Elymus glaucus	blue wildrye	6 (8)	$13.50
Eschscholzia californica	California Poppy	2 (1.5)	$16.00
Heterotheca grandiflora	telegraph weed	1 *	$60.00
Lotus purshianus	Spanish Clover	1 (1.5)	$70.00
Lotus scoparius	Deerweed	2	$30.00
Lupinus nanus	Sky lupine	1 (2)	$40.00

Melica californica	Californica melic	2	$30.00
Nasella pulchra	Purple needlegrass	4	$36.00
Poa secunda	One-sided bluegrass	2	$28.00
Trifolium wildenovii	Tomcat clover	2	$40.00
Total		93	

Please provide a purchase order by June 1st on the year preceding that in which the seed purchase is intended. Some items may require extra collections be made in advance to assume supply of the quantities requested and are noted with a *. Numbers in ( ) show the more usual seeding rates for these seeds.

Thank you again for consulting Pacific Coast Seed, Inc. as your seed supplier for this project. We look forward to working with you on future projects.

Sincerely,

Pacific Coast Seed, Inc

Patricia Gomez
Operations Manager