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 (Lehigh Quarry)	08-10-2017	91- 43-0004

II. Mine Operator		Telephone
Lehigh Hanson, Inc.		(408) 996-4269
Onsite Contact Person		**Telephone**
Erika Guerra		(408) 996-4269
Mailing Address		
24001 Stevens Creek Blvd.		
City	**State**	**ZIP Code**
Cupertino	CA	95014
E-mail Address (optional)		
erika.guerra@lehighhanson.com		

III. Designated Agent		Telephone
Erika Guerra		(408) 996-4269
Mailing Address		
24001 Stevens Creek Blvd.		
City	**State**	**ZIP Code**
Cupertino	CA	95014
E-mail Address (optional)		
erika.guerra@lehighhanson.com		

IV. SMARA Lead Agency Name (City, County, BCDC, or SMGB)		
Santa Clara County		
Inspector		**Telephone**
Christopher Hoem, AICP		(408) 299-5784
Title	**Organization**	
Associate Planner	Department of Planning and Development	
Mailing Address		
70 West Hedding Street, East Wing, 7th Floor		
City	**State**	**ZIP Code**
San Jose	CA	95110
E-mail Address (optional)		
christopher.hoem@pln.sccgov.org		

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** 2011 (exploration in 1935)
A Reclamation Plan	☑	☒	☐	**RP#** 2250-84P **Date Approved** March 1985
Reclamation Plan Amendment	☑	☒	☐	**RP Amendment # (as applies)** 2250-10P (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:**

VI. Is this Operation on Federal Land? Check One: ☐ **Yes** ☑ **No**
If "Yes," Provide One or Both of the Federal Mine Land Identification Numbers Below:

California Mining Claim Number (CAMC#):	Latitude/Longitude at Mine Entrance (Decimal Degrees):
N/A	lat 37.321034, lon -122.086118
U.S. Forest Service or BLM Identification Number (Plan of Operations #) :	**Status of Plan of Operations (Current/Expired/In Process):**
N/A	N/A

SURFACE MINING INSPECTION REPORT

VII. Financial Assurance		Inspection Date: 08-10-2017	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. Lexon Insurance Company 4. Liberty Mutual Insurance Company 5. Fidelity & Deposit Company Bond	5 bonds posted: 1. Bond #64S104790142BCM 2. Bond #280331 3, Bond #1066515 4. Bond #022033624 5. Bond #09054091	1. $7,570,047.00 2. $540,001.00 3. $1,691,220.00 4. $18,963,259.00 5. $25,958,768.00	1. None 2. None 3. None 4. None 5. None	1. 10-19-2007 2. 08-18-2010 3. 01-28-2011 4. 02-03-2012 5. 05-12-2013
	Total Amount of Mechanism(s)	$54,723,295.00		

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

N/A

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:** March 2017 **Amount:** $53,861,976
■ **Financial Assurance Cost Estimate Pending Review with Lead Agency?**	**Date Submitted/Explanation/Amount of pending estimate:** 2017 FACE submitted July 31, 2017. 2017 FACE = $53,155,627.00. Review pending.
☐ **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

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 tones total c) 12-31-2030 (RPA, Table 2) d) NA (vested mine) e) open space - hillside (Fig. 2.3-2)	Mine quarry operating in accordance with 2012 RPA. Rock plant not operating. (See Attachment A.)	
2) Boundaries a) Property Boundary b) Permit Boundary c) Rec. Plan Boundary (RPB) d) Setbacks	a) RPA-Figure 1.0-2 (3.51 acres) b) RPA-Figure 1.0-2 (1238.6 ac.) c) RPA-Figures 1.0-2 & 1.04 (1238.6 ac.) d) variable, see RPA-Figure 3.3-1	Operations are in compliance with boundaries per 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:1.0V to 2.0H:1.0V a.ii) EMSA: 2H:1V, WMSA: 2.5H:1V, Pit backfill: 2.5H:1V a.iii) see COA 25 & 70. b.i) near vertical cuts between benches b.ii) Pit walls limestone: 1H:1V overall greenstone: 38 to 50 degrees	Quarry slopes are in compliance with 2012 RPA criteria. WMSA slopes comply, but will be regraded for final reclamation. EMSA slopes comply and meet elevation restrictions of 2012 RPA.	
4) Erosion Control a) BMPs b) Grading c) Vegetation	a) 10-22-2012 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 70, 78, to 81	BMPs and stormwater management program is active. Winterization scheduled before rains begin. (See Attachment A.)	
5) Ponds a) Design – Function b) Capacity (area/depth/volume) c) Maintenance	a., b & c) RPA Table 8; RPA-Appenedix F; 12-22-2012 SWPPP; COA 33 & 83	Pond 17 has a failing sheet pile wall. Repair is pending. (See Attachment A.)	
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 Figure 3.3-1; COA 57 to 61	Check dams are in-place and clear. Permanente Creek Restoration Plan (PCRP) has been submitted to the US Army Corps of Engineers, and full submission of plans to the County is pending.	
7) Sensitive Wildlife & Plant Protection a) List Species b) Protection Measures	a) RPA 2.9, 3.17.1; Appendix B; b) RPA-Appendix D (50-foot setback)	Wildlife surveys were conducted prior to mining disturbances. On-going protection measures have been implemented as per RPA & COA.	

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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 Figure 2.6-1 ai&bi) WMSA & EMSA (COA 26) aii&bii) temporary angle of repose aiii&biii) 12-22-2012 SWPPP; COA 27 ci) RPA 3.4, 3.10; RPA Appendix B cii) RPA Appendix B ciii) RPA Appendix B civ) RPA 3.17.3	Two topsoil storage areas in WMSA and one in EMSA. BMPs in place for topsoil storage areas. Soil/overburden stockpiles managed in compliance with 2012 RPA. (See Attachment A.)	
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 Figure 2.9-1; COA 28, 29, 77 b) RPA-Tables 3 and 6 c) RPA Table 7 d) RPA Table 7 e) RPA Table 7 f) RPA 3.17.3.2 g) RPA 3.17.3.5 h) RPA 3.17.3.4	EMSA Revegetation is ongoing. (See Attachment A.)	
10) Structures	RPA 3.20; COA 31	New crusher is operational. Overflow erosion repaired with soil-nail wall. Old crusher removed. New mine office structure completed.	
11) Equipment	RPA 3.20; COA 31	Both fixed and mobile equipment will be removed as part of final reclamation.	
12) Closure of Adits	During final reclamation, conveyor tunnel (from crusher to cement plant) will be filled and sealed.	Conveyor tunnel is open and will be closed during final reclamation after mining ceases.	
13) Other Reclamation Plan Requirements	No limestone on surface (COA 74). Remove limestone from contact with stormwater (COA 39). Reclaim PCRA after plan is approved by other agencies (COA 38 & 40). (Water quality treatment must reduce selenium discharges in compliance with requirements of SFBRWQCB per mediated agreement.)	Limestone rock was removed from drainage controls. PCRP submission to the County is pending. SFRWQCB issued consolidated WDR/NPDES permit R2-2014-0010, CA0030210 on 3-12-2014. Interim Treatment System for mine water treatment is operational. (See Attachment A.)	

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)

The mine was active during the 2017 inspection. The 2012 approved Reclamation Plan Amendment identifies nine areas within the mining boundary:
1. North Quarry (main pit)
2. West Materials Storage Area (WMSA)
3. East Materials Storage Area (EMSA)
4. Crusher/conveyor
5. Surge Pile
6. Rock Plant
7. South Quarry Exploration Area
8. Permanente Creek Restoration Area (PCRA)
9. Buffer Areas that surround active mining areas.

Attachment A describes our observations in each of the areas and the photos illustrate what the inspectors observed.

No SMARA violations were noted during the 2017 inspection of the mine.

The County's inspectors found that Lehigh Quarry is currently in compliance with the provisions of SMARA. In addition, the operator is making progress in complying with the requirement of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) with regard to water treatment and discharge permits.

Additional sheets/documents attached: ☑ Yes ☐ No

CA MINE ID #
91- 43-0004

Inspection Date:
08-10-2017

Weather Code(s):
CR

Duration of Inspection: 5

Start Time: 10 AM

End Time: 3 PM

Status of Mine Code(s):
OP

Status of Reclamation Code(s):
R (South Exploration Areas)

Approximate Acreage Under Reclamation:
19.5

Approximate Acreage the lead agency has determined reclaimed in accordance with the approved reclamation plan:

Approximate Total Disturbed Acreage:
669.2 of 1268.6 acres

Approximate Pre-SMARA Disturbed Acreage:
49.2 acres

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

Previous Inspection Date (and Number of Violations then Noted):
8-11-2016: no violations.

Violations Corrected? (explain in block to left)
none

Inspection Attendees and Affiliations:

Lehigh:
Erika Guerra
Sam Barket
Manjunath Shivalingappa
Talia Flagan
Erich Schickenberg (WRA)

Santa Clara County:
Christopher Hoem
Jim Baker
Steve Beams

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

County File 2250-17PAM - Lehigh Quarry (formerly Permanente Quarry)

Notes and photographs from 2017 Annual SMARA mine inspection conducted on 8-10-2017 by James Baker, CEG#1021, County Geologist, and Steve Beams, Senior Construction Inspector.

The 2017 annual SMARA inspection of Lehigh Quarry was conducted for 5 hours on August 10, 2017. In attendance were the following persons (affiliation indicated):

James Baker (County Planning)
Christopher Hoem (County Planning)
Steve Beams (County LDE)
Erich Schickenberg (WRA)
Manjunath Shivalingappa (Lehigh)
Sam Barket (Lehigh)
Erika Guerra (Lehigh)
Talia Flagan (Lehigh)

The 2012 approved Reclamation Plan Amendment identifies nine areas within the mining boundary:

1. North Quarry (main pit)
2. West Materials Storage Area (WMSA)
3. East Materials Storage Area (EMSA)
4. Crusher/conveyor
5. Surge Pile
6. Rock Plant
7. South Quarry Exploration Area
8. Permanente Creek Restoration Area (PCRA)
9. Buffer Areas that surround active mining areas.

The mine was active during the 2017 inspection. The following paragraphs describe our observations in each of the areas [with **PHOTOs** and captions that describe what we observed].

1. North Quarry (Main Pit)

The highwalls on the north, east, and south are essentially complete (excavated benches); while the western side of the pit is still being actively mined (blasting and loading). Extraction of limestone was on-going in the main pit. Overburden materials were being places and compacted against the northwestern highwall. [See **PHOTO #1** and **PHOTO #2**.]

2. WMSA

No new material was being placed in the West Materials Storage Area (WMSA). The northeast-facing slopes of the WMSA have well-established vegetation (grasses and same shrubs). [See **PHOTO #3** and **PHOTO #4**.] Topsoil and organics are stored and covered in the central portion of the WMSA. [See **PHOTO #5**.] There is a seep at the top of the haul road buttress. [See **PHOTO #6**.] (Most of the material stored in the WMSA will be moved and placed as backfill into the main quarry pit. Topsoil will be used to cover benches for plantings.)

3. EMSA

The EMSA slopes have been finish graded per the approved Reclamation Plan. The final elevations have been achieved with a non-limestone cover. BMPs have been placed on the slopes (wattles) and along the benches (rock check dams and silt fences). [See **PHOTO #7**.] Surface drainage is directed into Pond 30 which is rock-lined with non-limestone rock. [See **PHOTO #8** and **PHOTO #9**.] Water discharges through a pipe that outlets onto a rock apron adjacent to the creek.

4. Crusher/Conveyor

The crusher was constructed in 2013 against a 70-foot high retaining wall. Drainage from around the crusher is directed into a sump which overflowed due to a power failure in 2014. As a result, an erosion gulley formed on the steep slope west of the crusher. The operator has had the gully lined with jute netting and several silt fences. [See **PHOTO #10**.] Eroded material accumulated at the toe of the slope and extended into the eastern side of Pond 13. [See **PHOTO #11**.] The operator had a soil-nail wall installed in the head of the erosion gully located downhill of the sump. [See **PHOTO #12**.] The crusher and conveyor will be removed prior to final reclamation. The tunnel through which the conveyor travels will be filled and sealed prior to closure. Wildlife protection procedures (outlined in the RPA and COAs) must be followed when the tunnel is backfilled.

5. Surge Pile

The surge pile has been reduced significantly since last year's inspection. [See **PHOTO #13**.] Sediment that erodes from the surge pile is detained in ponds. [See **PHOTO #14**.] During final reclamation, the surge pile will be removed and the underlying creek channel will restored during the Creek Restoration work that has not yet been approved.

6. Rock Plant

The rock plant was not in operation during the inspection. There are numerous stock piles and equipment in the rock plant area. Runoff from the rock plant is directed into Pond 17. The sheet pile wall along the north side of the channel leading to Pond 17 has failed inward. [See **PHOTO #15** and **PHOTO #16**.] The sheet pile wall needs to be repaired.

7. South Quarry Exploration Area

Located southwest of Permanente Creek, the area was disturbed by excavation of drilling pad and associated roads in order to evaluate the mineral resources in that area. However, the quarry operator withdrew the application to expand the mine into that area and has allowed the natural vegetation to become reestablished there. During the past several years, the growth of grasses and brush appears to have mitigated the previous ground disturbances. A ground survey will be needed to confirm the adequacy of the revegetation to meet the performance standard in the RPA prior to the County granting reclamation closure of the area.

8. Permanente Creek Restoration Area (PCRA)

Plans for restoration of Permanente Creek adjacent to the mine are still in review by several regulatory agencies. Once the plans have been approved, the FACE will need to be revised to reflect the costs of implementing the "construction" described in the plan. For now, the County considers the area to be in compliance with SMARA pending the outcome of agency reviews.

9. Buffer Areas

The undisturbed areas around the active mine are intended to protect the quarry from encroachments by other land uses and to protect nearby land uses from adverse effects of the mining. At the time of our inspection, the Buffer Areas appeared undisturbed and providing the buffer effect intended.

VIOLATIONS

No SMARA violations were noted during the 2017 inspection of the mine.

OTHER OBSERVATIONS

The Quarry is taking actions to comply with the requirements of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) with regard to water quality and discharge permits. An Interim Treatment System is operational at Pond 4A. [See **PHOTO #17** and **PHOTO #18**.] This treatment system includes a biological reactor, augmented with a reverse osmosis system, to treat water before being discharged into Permanente Creek.

CONCLUSIONS

The County of Santa Clara finds that the Lehigh Quarry (formerly Permanente Quarry) is currently in compliance with the provisions of SMARA.

The elements that have been constructed to minimize erosion and control sedimentation by runoff must be monitored and maintained as necessary to prevent adverse impacts to areas adjacent to the mine.

PHOTO #1 – North Quarry Main Pit (looking southwest)

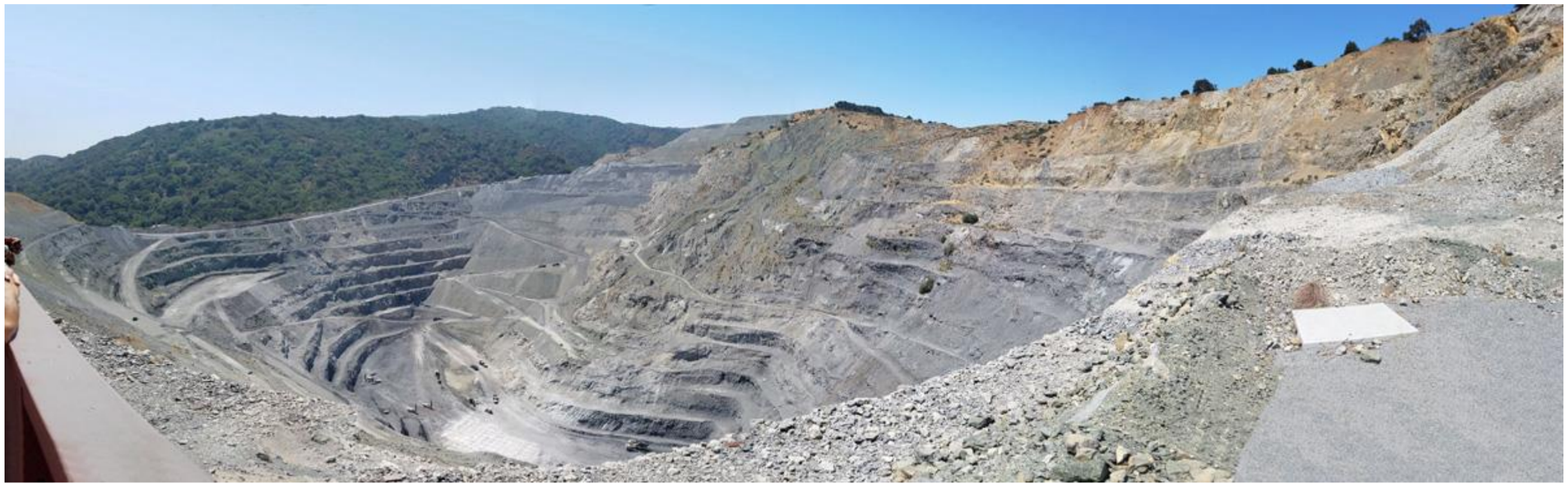

PHOTO #2 – North Quarry Main Pit (looking southeast)

PHOTO #3 – WMSA (looking northeast)

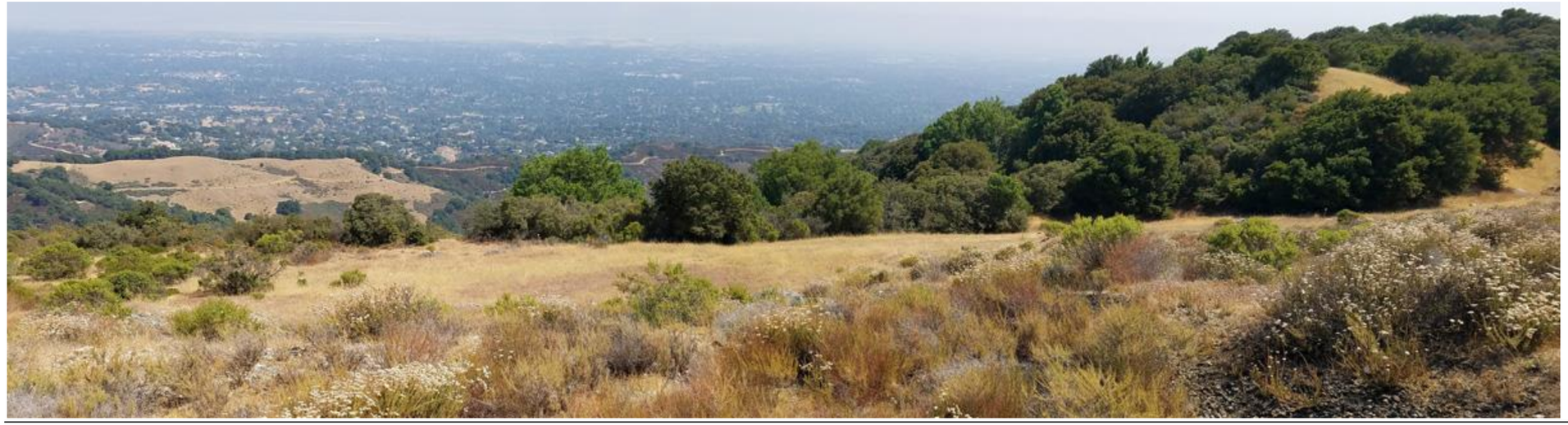

PHOTO #4 – WMSA (looking northwest)

PHOTO #5 – Topsoil Stockpile

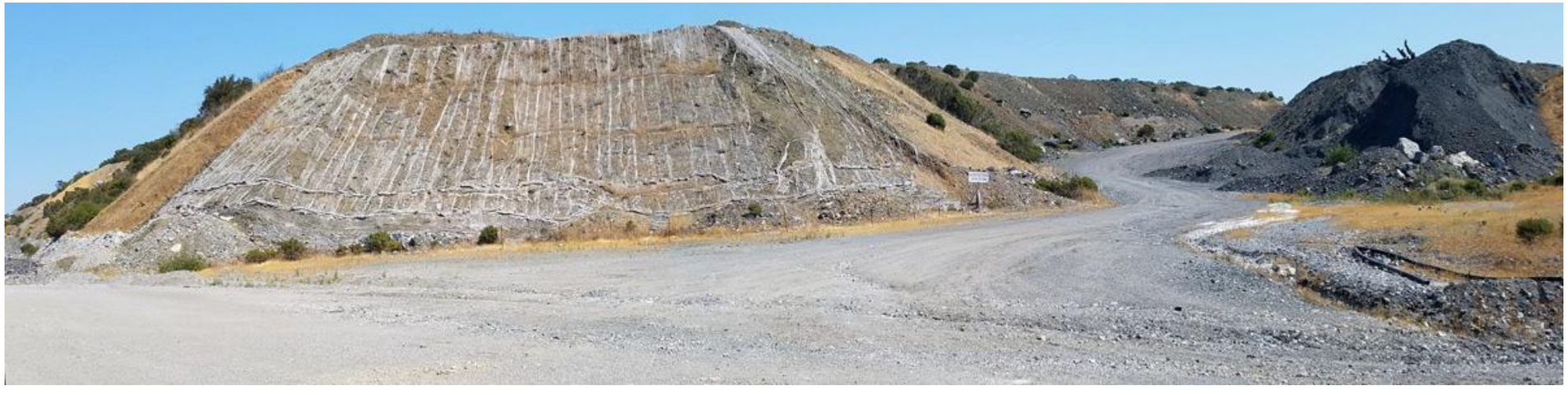

PHOTO #6 – Seep at top of haul road buttress

PHOTO #7 – Southern slopes of EMSA (looking east)

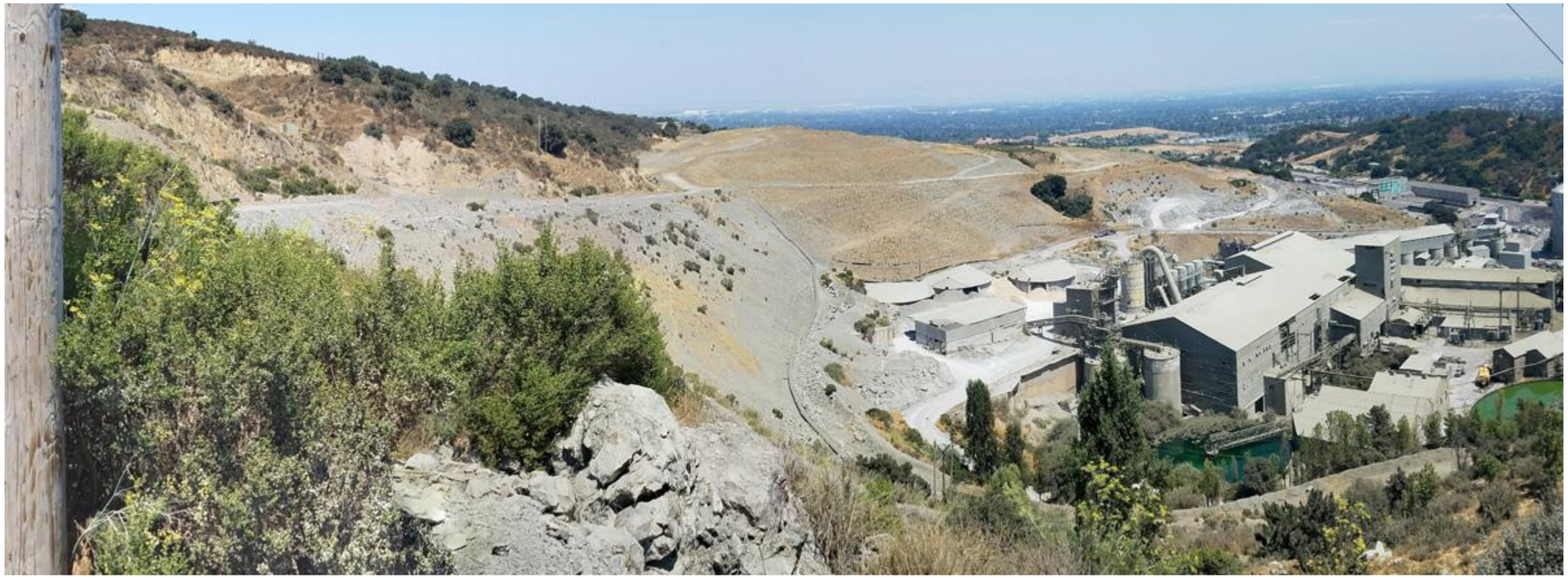

PHOTO #8 – Pond 30 and drainage swale leading to Pond 30 (looking south)

PHOTO #9 – Pond 30 (looking southwest)

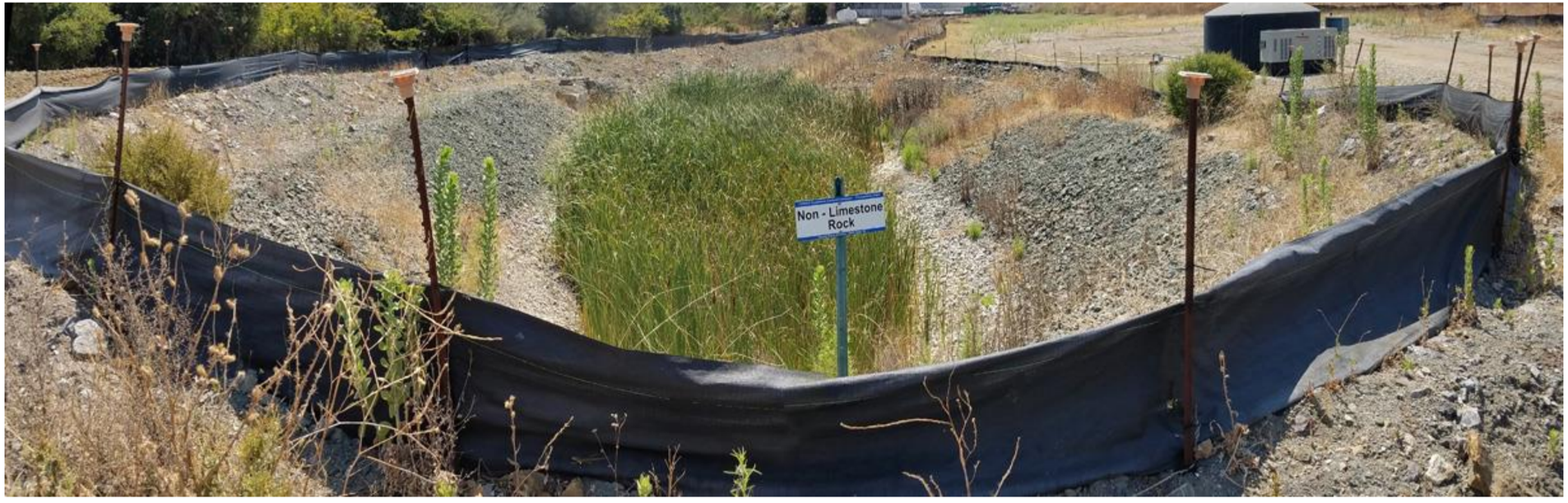

PHOTO #10 –Debris track below crusher sump

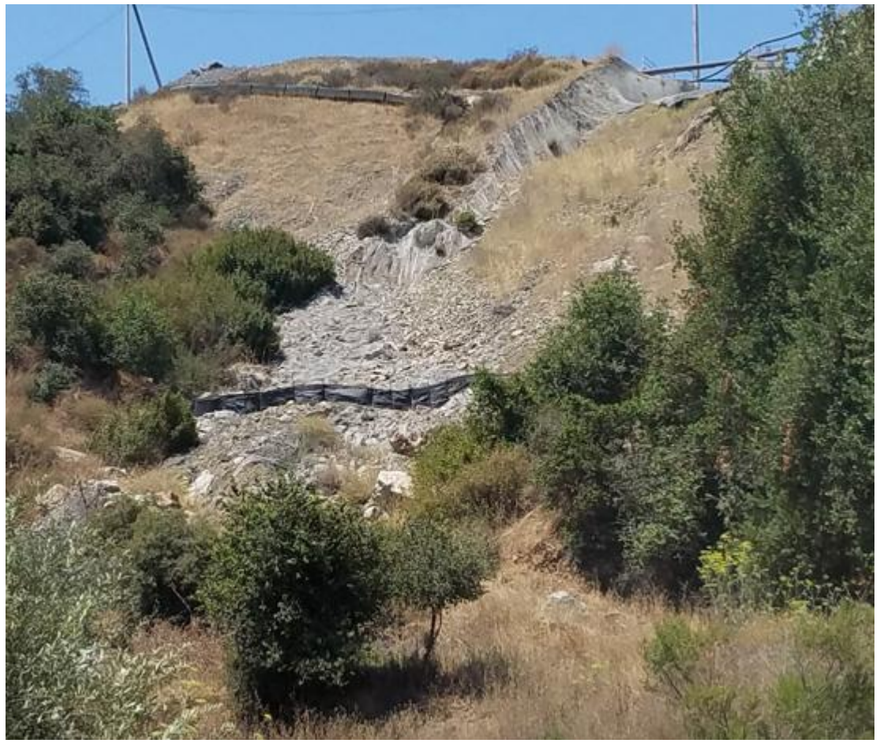

PHOTO #11 – Pond 13

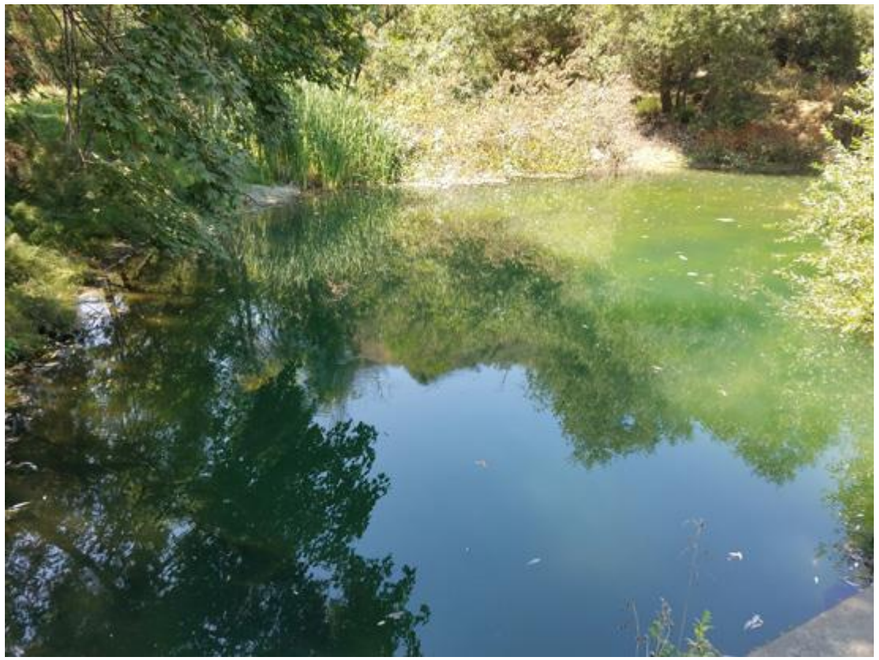

PHOTO #12 – Tie-back wall at crusher sump

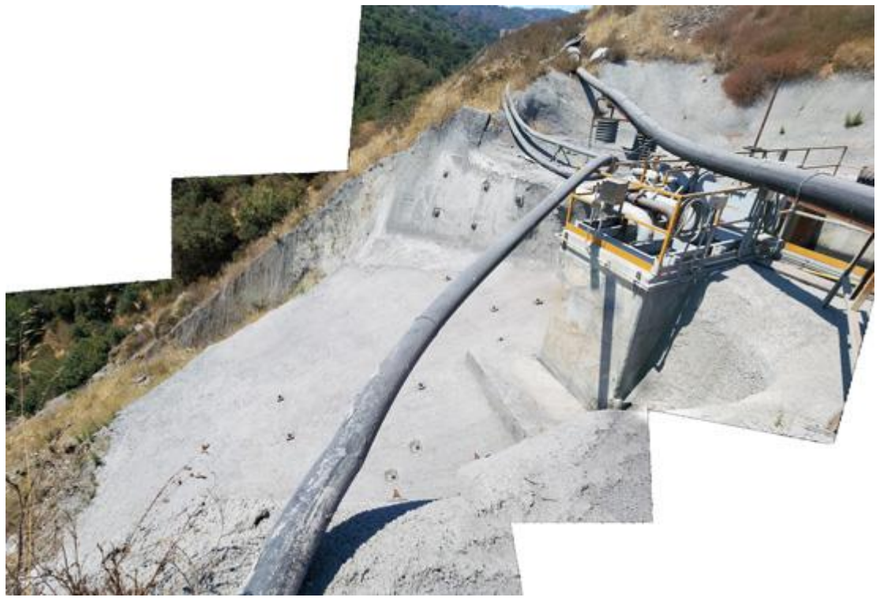

PHOTO #13 – Surge Pile looking southeast

PHOTO #14 – Slopes above Pond 13

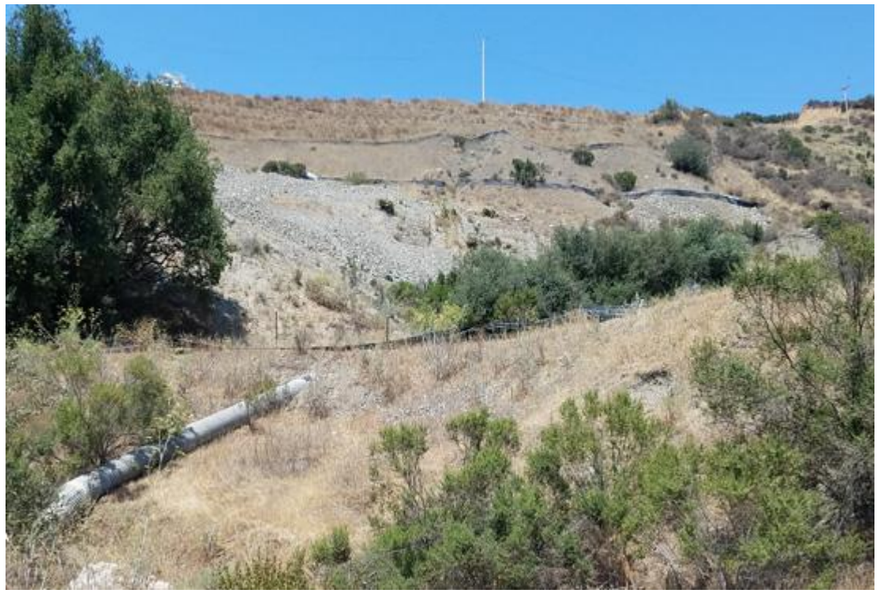

PHOTO #15 – Check dams and failing sheet pile wall leading to Pond 17

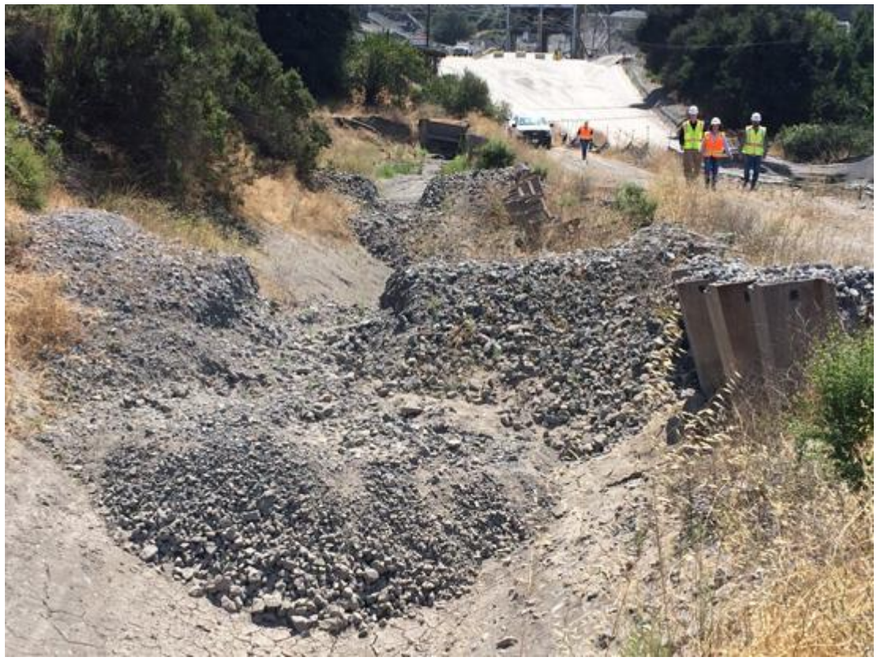

PHOTO #16 – Check dams and failing sheet pile wall leading to Pond 17

PHOTO #17 – Tanks at Interim Treatment System

PHOTO #18 – Pond 4A looking northwest