ALMADEN QUICKSILVER COUNTY PARK AND SANTA TERESA COUNTY PARK MINE MATERIAL EVALUATION

AMENDED FINAL REPORT

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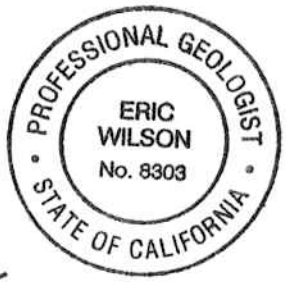
Project No.: 26817573

1333 Broadway
Suite 800
Oakland, CA 94612

REPORT CERTIFICATION

This report presents the results of an effort to map and rank potential sources of mercury from the Almaden Quicksilver County Park and Santa Teresa County Park to the Guadalupe River Watershed. This report has been prepared in accordance with current standards of professional practice; no other warranty is expressed or implied.



John R Flanders
Project Manager

Eric Wilson, P.G. 8303
Project Geologist

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1.0 INTRODUCTION

This final report is submitted to satisfy the reporting required by the San Francisco Bay Regional Water Quality Control Board (SFRWQCB), under the authority of California Water code section 13267, as stated in two letters dated June 2009 (SFRWQCB 2009a, 2009b). This section presents the environmental and regulatory setting, and the scope of work.

1.1 Environmental Setting

The Guadalupe River watershed covers approximately 170 square miles, draining the eastern Santa Cruz Mountains to San Francisco Bay through Alviso Slough. The Guadalupe River begins at the confluence of Guadalupe Creek and Alamitos Creek. Important tributaries include Ross Creek, Canoas Creek, and Los Gatos Creek.

The upper watershed is dominated by bedrock belonging to the Franciscan formation. Serpentine intrusions, where they have been hydrothermally altered to silica carbonate, are the primary source of naturally occurring mercury in the watershed. In 1846, the New Almaden Mining District was opened and operated mercury mines until its closure in 1975. Calcines and other mine wastes were disposed of in or near creeks for eventual transport downstream. In 1935, with the construction of Guadalupe and Almaden Reservoirs, this practice was discontinued. Other waste deposits, with varying mercury content, were placed on slopes near the many furnaces that were used to roast ore. The largest one was the Hacienda Furnace Yard above Alamitos Creek, downstream of Almaden Reservoir and on Mine Hill, which sits on the Guadalupe Creek/Alamitos Creek watershed divide. Downstream from this point the watershed is heavily urbanized. The Bernal Mine is much smaller and is located in the Santa Teresa County Park (STCP) in the Canoas Creek watershed about 4 miles northeast of the New Almaden Mining District.

In the early 1970s, the County of Santa Clara (County) acquired approximately 3,600 acres within the New Almaden Mining District from the New Idria Mining and Chemical Company. In 1975, the Almaden Quicksilver County Park (AQCP) opened for public use. A smaller parcel, the Hacienda site, was acquired in 1982.

In 1987, the California Department of Toxic Substances Control issued a Remedial Action Order to evaluate mercury contamination and take corrective action. In response, the consulting firm, Dames & Moore, conducted an Environmental Mercury Assessment of Almaden Quicksilver County Park in 1988. The assessment followed a Sampling and Monitoring Plan prepared by Woodward-Clyde Consultants and approved by the California Department of Health Services. A Remedial Action Plan was implemented at several locations to remove calcine piles, and rework calcines and fluvial sediments containing mercury concentrations exceeding the 400 milligrams per kilogram (mg/kg) action level.

In 1998, several water bodies in the Guadalupe River watershed were identified by the California State Water Resources Control Board and the SFRWQCB as being impaired by the presence of mercury according to provisions in the Clean Water Act section

303(d). Being placed on this list triggered the Total Maximum Daily Load (TMDL) process for the watershed to address mercury loading to San Francisco Bay. On October 8, 2008, an amendment to the SFRWQCB's Water Quality Control Plan was adopted to amend mercury water quality objectives and incorporate TMDLs for mercury in the Guadalupe River watershed. The TMDL was approved in late November 2009 by the State Water Resources Control Board. The TMDL was approved by the Office of Administrative Law on February 24, 2010.

The Basin Plan Amendment for the Guadalupe River watershed established mercury allocations for the following sources:

- Mercury mining waste discharged from mercury mines into surface waters of 0.2 milligrams (mg) of mercury per kilogram (kg) of erodible soil fines (dry weight, median)
- Mercury-laden sediment discharged from depositional areas in Alamitos Creek, Guadalupe Creek, Los Gatos Creek downstream of Vasona Dam, Canoas Creek, Ross Creek, Guadalupe River, tributaries to these creeks that drain mercury mines and/or convey urban stormwater runoff, and percolation ponds along these creeks of 0.2 mg mercury per kg erodible soil fines (dry weight, median)

In addition, the TMDL includes an implementation plan to reduce mercury loads in the watershed. Phase I of the implementation plan focuses on erosion control at former mine sites, methylmercury controls at reservoirs, and an assessment of Alamitos Creek. Phase II will focus on creek remediation and restoration with the stated objective to reduce fish tissue concentrations in 20 years.

1.2 Scope of Work

The scope of work was described in a work plan (URS, 2009) submitted on November 24, 2009. The scope of work was developed to address Phase I of the Implementation Plan of the Guadalupe River Watershed Mercury TMDL, and responds to requirements set forth by the SFRWQCB in their two 13267 letters dated June 18, 2009. It builds on information gathered during the extensive assessment and remediation that has already been conducted by the County in Almaden Quicksilver County Park (AQCP), and assists the County in prioritizing future remediation efforts. The objectives include:

- Compile available information relevant to potential mercury sources at the AQCP and the STCP.
- Identify potential sources of mercury to the watershed.
- Rank potential sources in terms of potential to act as loading source.
- Provide possible remedial solutions for potential mercury sources.

The following sections detail the scope of work designed to satisfy these stated study objectives:

- Review Background Materials

- Mapping and Ranking
- Geologic and Hydrologic Field Surveys
- Final Ranking and Recommendations

1.3 Limitations

The following limitations may apply to this document:

- This report is conceptual in nature and is not to be used as the sole basis for final design, construction or remedial action, or as a basis for major capital decisions. Further studies should be performed prior to such decisions.
- Background information, geospatial information, and other data have been furnished to URS by the County, which URS has used in preparing this report. URS has relied on this information as furnished, and is neither responsible for nor has confirmed the accuracy of each document or data source.
- The information presented herein applies to the existing and reasonably foreseeable site conditions at the time of our assessment. They cannot apply to site changes of which URS is unaware and has not had the opportunity to review. Changes in the condition of this property may occur with time due to natural processes or works of humans at the AQCP and STCP or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

2.0 REVIEW BACKGROUND MATERIALS

URS reviewed the available regional and site-specific information relevant to erosion, mercury wastes, and seeps at the sites. The document review included the following:

- Bailey, E.H., and Everhart, D.L. 1964. Geology and quicksilver deposits of the New Almaden district, Santa Clara County, California: U.S. Geological Survey Professional Paper 360.
- Camp Dresser & McKee. 1994. Final Remedial Action Plan, Almaden Quicksilver County Park. December.
- CH2MHill. 1997. Hacienda Furnace Yard Completion Report, Almaden Quicksilver County Park, San Jose, California. Prepared for County of Santa Clara Parks and Recreation Department. July 7.
- CH2MHill. 1999. Remedial Design and Implementations Plan Completion, Mine Hill Remediation Project, Almaden Quicksilver County Park, San Jose, California. Prepared for County of Santa Clara Parks and Recreation Department. July 7.
- Cox, M. 1985. Mining Operations at the New Almaden Quicksilver Mines, Santa Clara County.
- Dames & Moore Consultants. 1989. Environmental mercury assessment phase III sampling area descriptions, Almaden Quicksilver County Park Vol. 1. San Francisco, California, for Santa Clara County Parks and Recreation Department, Los Gatos, California.
- Exponent. 2007. Erosion Reconnaissance of the Almaden Quicksilver County Park, Santa Clara County, California. Prepared for Santa Clara County Department of Parks and Recreation, Los Gatos, CA
- McLaughlin, R.J. and E.J. Helley. 2001. Geologic Maps and Structure Sections of the Southwestern Santa Clara Valley and Southern Santa Cruz Mountains, Santa Clara and Santa Cruz Counties, California. Sheet 4: Santa Teresa Hills and Southwestern Part of the Morgan Hill Quadrangles.
- McLaughlin, R.J. , J.C. Clark, E.E. Brabb, and E.J. Helley. 2001. Geologic Maps and Structure Sections of the Southwestern Santa Clara Valley and Southern Santa Cruz Mountains, Santa Clara and Santa Cruz counties, California. Sheet 1: Los Gatos Quadrangle.
- SFRWQCB. 2008. Guadalupe River Watershed Mercury Total Maximum Daily Load Project Staff Report.
- Woodward-Clyde Consultants. 1986. Environmental Mercury Assessment. Almaden Quicksilver County Park. Prepared for Public Services Agency, Parks and Recreation, County of Santa Clara.

- Woodward-Clyde Consultants. 1988. Sampling and Monitoring Plan. Almaden Quicksilver County Park. New Almaden, California. Prepared for Public Services Agency, Parks and Recreation, County of Santa Clara.
- Wentworth, C. M., Graham, S.E., Pike, R.J., Beukelman, G.S., Ramsey, D.W., and A.D. Barron. 1997. Summary Distribution of Slides and Earth Flows in Santa Clara County, California. U.S. Geological Service

In addition to the reports listed above, URS reviewed the available geospatial data, including recent and historical aerial photographs and maps to identify areas of landslide activity, the locations of springs and seeps, vegetative cover type, and potential changes in the location of waste piles. Base map layers (topography, geology, soils, vegetation, etc.) were provided by the County.

3.0 MAPPING AND RANKING

The mapping and ranking combined the data and information collected during the background material review with geospatial analysis to identify a list of targets for physical evaluation. The ranking occurred in two phases, a preliminary ranking to identify features for the geologic and hydrologic field surveys and a final ranking that incorporated the results of the field surveys. The results of the preliminary mapping and ranking were submitted to the SFRWQCB on March 17, 2010. The SFRWQCB did not suggest changes to the preliminary ranking prior to fieldwork. A progress report was submitted to the SFRWQCB on June 15, 2010 detailing the accomplishments of the field survey. On August 26, 2010, SFRWQCB staff provided comments on the methodology used to assess the mercury availability input factor; implementing the comments resulted in a slight change in the ranking but had no impact on which features were evaluated. The following sections detail the ranking methodology used.

3.1 Mapping – Almaden Quicksilver County Park

Maps from historical sources (e.g., Bailey and Everhart, 1964; Cox 1985) were scanned and georeferenced to identify dumps, scarps, and other waste features, including soils, roads constructed of calcines, furnace dusts, ores, overburden soils, waste rock, and natural landslides. Other features, such as sites of erosion, were identified through evaluation of aerial photos and literature (Exponent, 2007). Total Mercury (THg) concentration, grain size, and other point descriptions were assigned to the features identified in the historical documents or stored as point features. A 30-foot Light Detection and Ranging (LiDAR) bare-earth grid data set was used to delineate watersheds and drainage networks. The LiDAR data set was also used to determine the slope of the features and the associated watersheds. Maps were developed within a Geographic Information System (GIS) platform and organized into a project geodatabase in ArcView 9.3. Two hundred and forty features were identified through the preliminary mapping, ranging in size from 313 square feet (ft^2) to over 600,000 ft^2. The features, including the distribution of other data types associated with the features, are depicted in Figures 1, tiles 1 through 8.

Geologic maps for the AQCP (McGlaughlin et al., 2001, McGlaughlin and Helley, 2001) and STCP (McGlaughlin and Helley, 2001), were georeferenced and incorporated into the geodatabase. The maps for the Almaden Quicksilver County Park are largely based on the work of Bailey and Everhart. The geologic map for Bernal Mine is included as Figure 2.

3.1.1 Erosion Potential, Effect of Seeps, and Availability of Mine Materials

In order to rank the sites each feature was assigned a Feature Importance score calculated using the relationship below:

*Feature Importance Score = (α*Feature Size Factor) * (β* Potential Mercury Availability Factor) * (χ* Erosion Potential Factor)*

The Erosion Potential Factor is the geometric mean of the Feature Stability Factor and the Drainage Characteristics Factor. The symbols α, β and χ refer to weighting parameters that can be used to adjust the factors. Currently, these values are set at 0.2, 0.4, and 0.4, effectively weighting size less than the other factors. The weighting factors were set at these values to capture unstable wastes or those with potentially high mercury availabilities rather than focus on large wastes, given that the majority of the large calcine waste piles have been remediated (CH2MHill 1997; 1999). Erosion potential and mercury availability were weighted equally.

The input parameters used to calculate each factor were assigned a value of 1 to 5, and are listed below. The means by which values were assigned to each input parameter is described in detail following the list of input parameters.

Feature Size Factor:	Source
• Area (acres)	Literature/Field
Mercury Availability Factor:	
• Mercury concentrations (mg/kg)	Literature, GIS
• Mercury availability	Field, Literature
Feature Stability Factor:	
• Vegetation (Bare, Grass, Scrub, Trees)	GIS
• Feature Slope (Average)	LiDAR
• Distance to Landslide	GIS
• Effected by a seep? (Y/N)	Literature, GIS, Field
Drainage Characteristics Factor:	
• Existing Signs of Erosion? (Y/N)	Field, Photo
• Calculated drainage area	LIDAR, GIS
• Drainage Flow Factor above feature = A*B, where:	
A. Drainage area above feature	LIDAR, GIS
B. Drainage Slope (average) above feature	LIDAR, GIS

The input parameters listed above were assigned a value of 1 to 5, depending on how the input parameter is assumed to affect the importance of a feature as a potential source. Numeric input parameters (feature area, feature slope, distance of feature to landslide, grain size of feature material, drainage area above feature, slope of drainage area above feature, and THg concentrations of feature material type) were assigned a value of 1 to 5 by comparison with the 20, 40, 60, 80, and 100 percentile of the data set. That is, the 20% most important (e.g., closest to a landslide, had the steepest slope) were assigned a value of 5. The next 20% were assigned a 4 and the least important (e.g., farthest from a landslide, lowest slope) were assigned a value of 1. For some factors (e.g., feature area), high values were assigned the highest score, and for other factors (e.g., distance to drainage) the lowest values were assigned the highest score. If data were not available,

the feature was assigned a value of 3 for that factor. Consolidation and moisture information were estimated in the field for the features selected for geologic and hydrologic surveys. However, it was observed that low values for these parameters were depressing the scores of features that were evaluated relative to features that were not evaluated. For this reason, these data were not used in the final ranking.

For categorical input parameters, values (or scores) were assigned based on a qualitative assessment (vegetation, affected by seep, and mercury availability). These are described in detail in the following sections.

Mercury Availability Input Parameter

Little information exists on the availability of mercury within the possible solid phase materials present at the AQCP, so the scoring was based available THg concentration data and on conservative assumptions about availability of THg within solid phase materials. The SFRWQCB, in their comments on the preliminary ranking, suggested that mercury concentrations be ranked assuming that the concentration of THg in soils not impacted by mining (background) in the Guadalupe River watershed is 1-2 mg/kg (SFRWQCB 2008). The preliminary scoring regime was as follows:

- Calcines, furnace dusts, high grade cinnabar ores, elemental mercury present, or with THg concentrations 100 times background: 5
- Mixtures containing ore, or overburden soil with THg concentrations 10 times background: 4
- Unsampled location with unspecified material type: 3
- Soil or overburden soil with concentrations above background: 2
- Unsampled material not expected to have elevated mercury concentrations (Rock, soil, and landslides of native soils): 1

Overburden soil is the soil associated with the location of mercury ore deposits, and is commonly observed at the AQCP. These materials may have been referred to in other documents as colluvium (*e.g.*, CDM, 1994), but are termed overburden soils as they are the soil associated with an ore body. Colluvium is also used in other contexts to refer to soil transported by gravity from a low grade slope. The mercury availability input parameter as described here was updated to reflect the results of the field evaluation of THg concentration and leachability. These results are discussed in detail in Section 4.1.

Vegetation Input Parameter

Vegetation was grouped into the following groups: bare ground, grasses, shrubs, trees and the percent coverage of each vegetation type was calculated for each feature. The features were then assigned rankings based on the following classifications:

- Maximum % coverage is bare ground: 5
- Maximum % coverage is grasses: 4
- Sum of bare ground and grasses is greater than the coverage of shrubs and trees: 3

- Maximum % coverage is shrubs: 2
- Maximum % coverage is trees: 1

Seep influence was assigned based on the presence of certain vegetation types that require moist soil to grow, such as *Arundo donax*, members of the genus *Vinca*, Narrowleaf willow (*Salix exigua*), Red alder (*Alnus rubra*), California sycamore (*Platanus racemosa*), and Tree of Heaven (*Ailanthus altissima*). Features with any of these present were assigned a score of 5, and the scores for other areas were left blank until completion of field surveys. The seeps noted by the SFRWQCB (2008) were not included in the evaluation due to the lack of Global Positioning System (GPS) coordinates. Presence and absence of seeps were noted in the field and the scores updated for the final ranking.

3.1.2 Scoring Methodology and Results

The score for the Mercury Availability Factor, Feature Stability Factor, and Drainage Characteristics Factor were calculated as the geometric mean of the input parameters, and the final Feature Importance Score was calculated for each of the 230 features identified at the AQCP and then sorted from high to low. The scores range from 1.4 to 4.2. There were no zero scores but some values were left blank pending the results of field surveys; where applicable, values obtained during field surveys were added to the table. The results of the ranking are shown in Table 1 (Summary) and Table 2 (Full ranking). These ranking tables refer to other worksheets to support the vegetation (Tables 3 and 4) and mercury availability input parameters (Table 5).

A number of features were identified within the grading limits of past remedial efforts at the AQCP, including those in the Mine Hill area, San Mateo mine, El Senador mine, and the Hacienda furnace yard. Several of the top ranked features, including the two most highly ranked features, were remediated by 1999 (CH2MHill 1997, 1998). In total, 8 of the 16 features that were remediated were identified in the top 20% of the Feature Importance Score. The features intersecting these areas were excluded from the field effort, and are indicated in Table 1. However, aerial photograph analysis identified some erosional features intersecting the grading limits of the remediated areas, and these were evaluated (Table 1).

Several landslides were identified in the top 25% due to the conservative ranking methodology and their size. These landslides consisted of native soils and were not evaluated further.

3.2 Bernal Mine

There is comparatively little information on the existence of mining wastes at the Bernal Mercury Mine. Of the historical documents reviewed, there was no information directly supporting the presence of mining-related wastes at the Bernal Mine that could contribute drainage from STCP to Canoas creek. For example, the United States Bureau of Mines ([USBM] 1965) provided a description of the Bernal Mine:

> *"The Bernal prospect is 10 miles southeast of San Jose. Work prior to 1918 comprised a 200-foot adit on a clay-serpentine*

> *contact. No significant cinnabar mineralization was encountered and no production made. The property has been inactive since 1918."*

The reference to an adit, which describes a horizontal entrance to a mine, further diminishes the likelihood of disturbance associated with mining, which was also noted by the SFRWQCB (2008). A geologic map of the area indicates that only small amounts of silica-carbonate rock associated with ore bodies are present, and the majority of geologic features consist of Franciscan mélange (Figure 2) not typically associated with cinnabar deposits. However, given that the SFRWQCB noted the possible remnants of a brick furnace (SFRWQCB, 2009b) a field evaluation was performed at the Bernal Mercury Mine.

4.0 GEOLOGIC AND HYDROLOGIC FIELD SURVEYS

The purpose of the field surveys is to field proof maps and refine the scores generated during the preliminary ranking. The field surveys were conducted between March 24, 2010 and May 1, 2010 as weather conditions permitted vehicular access. Three classes of features were selected for field surveys: non-remediated features scoring in the top 25%, observed erosion features (including seven erosion features identified by Exponent [2007] that are near mine wastes), and a small number of low-scoring features with high erosion potentials. The observed erosion features were visually evaluated to determine the nature of the eroding material and confirm the preliminary scoring data (e.g. influence of seeps). The low-scoring features were included as negative controls to test for possible Type I errors (i.e., that a high-risk waste feature was ignored due to the ranking methodology). The features identified were:

- URS_161: High erosion potential
- WS38: Small calcines pile with moderate erosion potential and waste stability
- WS31: Cox (1985) indicated that the area was larger than it appears on imagery
- URS_132: Enriquita Mines retort pile; small, low-erosion potential
- WS65, WS65b: Identified during photo review; potential areas of calcine waste on shore of Guadalupe Reservoir
- Erosion features 2, 5, 9, 10, 11, 13, 23, 36 (Exponent, 2007)

The geologic and hydrologic field surveys included geologic mapping by documentation of the nature and distribution of mining-related tailings and fill, soil and rock units, the location and orientation of faults and other structural discontinuities, and the limits of landslides and other potential slope instability within the study area. The field surveys also included observations, measurements, GPS surveying, and limited sampling to refine the distribution and classification of contaminated soils and mine wastes, seeps, erosion potential, and existing erosion control measures.

As the result of ongoing dialogue between the County and the SFRWQCB, some changes were made to the scoring methodology used to calculate mercury availability after the field surveys had been completed. As a result of the change, three features were added to top quartile, and one feature that had been included in the preliminary ranking did not score in the top quartile. Each of the three sites that were added was evaluated during the evaluation of other sites. URS_273, an unnamed road west of the San Francisco opencut, and URS_274 are extensions of the Castillero trail, a calcine paved road [listed as WS26 in the preliminary ranking (URS 2010)]. WS20 is a creek that receives drainage from WS60 (Santa Isabel shaft dump) and WS61 (Buena Vista shaft and Randol dumps). These dumps are comprised of coarse rock and there was no evidence of calcines or other mercury bearing wastes (e.g., furnace dusts) in the dumps or in the creek. Based on the preliminary mapping results, there are no other dumps along the creek, so the

downstream portion was not further evaluated. The creek is cemented by a mineral precipitate which has encased native algae in a mineral deposit (Photograph 1 and 2, Appendix A).

One feature identified during the preliminary ranking was not found in the field. WS56, the purported location of the two-tube Rossi retort was identified by a GPS coordinate in the mine closure report (Cox, 1985). The area surrounding these coordinates was undisturbed oak woodland and soils appeared to be native, grey brown soils.

A number of sites identified in previous reports referred to calcine-paved roads. It was observed that the extent of paving was more extensive than previously indicated in several instances. In addition, the roads were reclassified and organized with regard to discrete stretches of road between trail heads or junctions to aid in future identification. The updated maps reflect the reclassification (Figure 1).

4.1 Mercury Availability Sampling Results

Samples were collected from 11 locations during the field survey and submitted to an analytical laboratory for analysis of THg and a selective chemical extraction technique to approximate "bioavailable" mercury. Although standard analytical methods do not yet exist for bioavailable mercury analysis in solid phases, a conservative estimate may be made by performing an extraction in a weak (0.5%) hydrochloric acid solution at room temperature and analysis of the extract for THg (THg_{HCl}). The extraction method desorbs divalent mercury from the surface of most particulates and dissolves iron compounds that may be accessible by reductive dissolution of iron oxide phases by iron-reducing bacteria. Samples were also analyzed for total organic carbon. The Water Environment Research Foundation [(WERF), 2009] published a report describing a similar method.

To account for the potentially high variability in mercury concentrations at mining waste sites, several individual grab samples (the number of samples ranged from four to ten, in proportion to the surface area of the feature sampled) were collected and composited using methods developed for the Santa Clara Valley Water District to characterize sediment (Cooke and Drury, 1998). Composite samples were sieved in the field using a stainless steel 2mm sieve, and the finer materials were saved for analysis. Samples were clearly labeled and handled according to URS and laboratory chain-of-custody procedures and were transported to the contract lab on wet ice; samples were received by the lab in good condition at 1.7°C. The analytical results are shown in Table 6.

Based on the observations recorded during the field effort, a mercury sampling regime was designed to characterize commonly observed material types in close proximity to water or exhibiting signs of erosion. Samples were collected from calcines, soils downgradient of eroding calcine paved roads to assess the effect of calcine transport, and overburden soils.

In general, there was no obvious distinction between the material types evaluated in terms of THg and THg_{HCl}. The THg concentrations were uniformly high in each of the material types evaluated, ranging from >10 mg/kg to a maximum of 379 mg/kg found in overburden soil. As previously indicated, we are using the term 'overburden soil' to refer to surficial soils that were stripped during mining operations to expose ore bearing

bedrock. While high mercury concentrations are expected in roasted ore, the high THg concentrations in many of the overburden soils or soil mixtures sampled is explained by the local geology. All natural soils at the park have been formed by weathering of the underlying bedrock. Consequently, we would expect overburden soils formed by weathering of highly mineralized bedrock to have high THg. It is possible that certain materials, such as soil derived from different parent materials, have distinctly different THg concentrations, but this type of analysis is beyond the scope of this project.

The analysis indicates that although the THg_{HCl} is not uniformly lower in one material type, the absolute concentration available to this relatively strong extractant is low. There was a weak negative linear relationship (R^2=-0.43; P = 0.025) between TOC and THg_{HCl} concentration, suggesting that the concentration of THg associated with acid soluble phases (e.g., iron oxides) decreased as organic content increased. However, there was little distinction among the types of materials in terms of TOC or THg_{HCl}. The ranges of THg and THg_{HCl} within each of the material types are described in the sections below.

4.1.1 Calcines and Calcine Paved Roads

The concentrations of THg and THg_{HCl} were highly variable within the calcine sample population but suggest that less than 0.1% of THg was leachable with a 0.5%-HCl solution. The concentrations of THg ranged from 22 mg/kg to 233 mg/kg, and the $\%THg_{HCl}$ ranged from 0.002% to 0.06%, the lowest and highest %THgHCl of the samples collected for this study.

The results from the road sampling suggests that the THg concentrations and the 0.5%-HCl extractable THg concentrations decline with distance from the source of the calcines, suggesting that the downstream effects may be mitigated by distance. April Trail A was collected from slump debris around an eroding section of the calcine-paved Mine Hill trail, where it intersects with URS_156; April Trail B was collected approximately 30 feet downgradient of the road in an area consisting of a mix of large pieces of calcines mixed in and sitting on top of native soils (Figure 1, tile 6). The concentrations of THg decreased from 165 mg/kg in sample A, which is the third highest THg concentration detected in the samples collected during this study, to 78 mg/kg in sample B. The concentration of THg_{HCl} declined from 0.017 mg/kg to 0.002 mg/kg. The concentration of TOC increased, which is consistent with the hypothesis that the proportion of calcines declines with distance from the roads.

The transport of calcines was also observed on the April Trail and Randol Trail. Sample URS_156 (Figure 1, tile 6) was collected from a non calcine paved section of the April trail, which appeared to receive sheetflow from an upgradient calcine paved section. The concentration of THg at this location was 159 mg/kg THg; the concentration of THg_{HCl} was 0.003 mg/kg, or 0.002% of THg. The Randol Trail sample was an area of relatively homogenous and fine-grained calcine material that had deposited on the Randol Trail from upgradient sheet erosion. The THg concentration was 33 mg/kg and the THgHCl was 0.019 mg/kg, or 0.06% of the THg, the highest value observed.

WS52 (Figure 1, tile 7) was collected from a calcine paved road had the highest THg concentration (233 mg/kg) of the calcine road samples. However, it had the lowest THg_{HCl} concentration, 0.004 mg/kg, which was 0.002% of the THg concentration.

Two locations were observed where calcines are exposed to surface water and were sampled to assess their potential leachability. Calcines previously stored in the Mine Hill repository are being exposed in several small areas by erosion (Figure 1, tile 7; Photographs 3 and 4, Appendix A); the THg concentration were relatively moderate compared to other locations (22 mg/kg) and had low THg_{HCl} concentrations (0.005 mg/kg).

The second set of calcine samples were collected from the banks of Jacques Gulch between the Mine Hill repository and the restoration project upstream of the Almaden reservoir (Figure 1, tile 8; Photographs 5, 6, 7 and 8, Appendix A). The THg concentration in one composite sample was 45 mg/kg, and the THg_{HCl} was 0.016 mg/kg.

4.1.2 Overburden

Four overburden soil samples were collected from the reddish silica carbonate soils that were commonly observed on the AQCP. These soils were excavated by miners to access the ore bodies. To provide further characterization of the potential bioavailability of the THg in these soils that are common in AQCP THg_{HCl} was determined on these samples.

The concentration of THg and THg_{HCl} were highly variable within this group of samples. These samples were characterized by a reddish color and are commonly observed in the vicinity of ore bodies. Concentrations of THg ranged from 10 mg/kg to 379 mg/kg. The concentrations of THg_{HCl} as a percentage of THg ranged from 0.17% to 0.002%, the highest and lowest observed values observed.

One composite sample was collected from WS65 (Figure 1, tile 2; Photographs 9 and 10, Appendix A), which were identified on aerial photos as potential areas of calcine waste due to the presence of reddish soils on the shoreline. Field investigation revealed that they are not composed of calcines, but native materials could be overburden soils excavated from the tunnels leading to the Enriquita mine and deposited downslope before the construction of the Guadalupe Reservoir, or native soils that were excavated due to the construction of the Guadalupe Reservoir. These soils had moderately elevated THg concentrations (42 mg/kg), but the lowest THg_{HCl} concentrations (0.001 mg/kg) or 0.002% of THg,

Several samples were collected on the trails and roads on the southwestern portion of Mine Hill. WS48 (Figure 1, tile 6) is a large complex of landslides on the southwestern slope of Mine Hill, approximately 300 feet from the main repository. The composite sample was collected from a small erosional area (Photograph 11, Appendix A) had a THg concentration of 379 mg/kg, the highest value observed. One composite sample was collected from ES9 (Figure 1, tile 6; Photograph 12, Appendix A), an erosional scar on the lower margin of eroding slopes along Castillero trail, and ES6 (Figure 1, tile 6; Photograph 13, Appendix A), an eroding upper margin of the America mine ore body. The THg concentrations were 26 mg/kg at ES9 and 10 mg/kg at ES6.

4.1.3 Bernal Mine

The field evaluation observed conditions consistent with the documentation reviewed, which suggested that there was no mercury production at the Bernal Mine (USBM 1965)

or geology associated with mercury mining (Figure 3). In the vicinity of the purported brick furnace at the Bernal Mine (SFRWQCB, 2009b), a field evaluation indicated steep slopes, but other than some sparse vegetation on an old road leading to the brick structure, there was no evidence of erosion or surface water conveyance (Photograph 14; Appendix A). Photograph 15 (Appendix A) shows typical soils from the area. Based on the available information and field results, Bernal Mine or STCP is not considered a source of THg to the Guadalupe River watershed.

4.2 Mine Hill Repository

The field surveys identified small areas on the Mine Hill calcine repository (Figure 1, tile 7) that require maintenance. This area was previously mitigated by regrading, capping and installing five concrete lined drainage ditches directing run-off into swales at either side of the fill. Two areas on the repository were observed where loss of drainage control and erosion have occurred (ES1 and ES12). Although these areas had been previously remediated, and thus excluded from the 13267 order, the County's Construction Services Division will address these areas through the ongoing maintenance plans already in place at the AQCP. Assessment of these areas in preparation for work is scheduled to commence in the first quarter of 2011 as weather permits.

4.3 Final Maps and Rankings

For the final maps and ranking, the preliminary maps were updated based on data and information obtained during the field effort and incorporated SFRWQCB comments on mercury availability ranking. Figure 1 reflects the efforts of the updated mapping. The complete photographic record of the field investigation taken at each feature has been included as Appendix B.

The rankings were updated to reflect the observed composition of materials at the feature. Based on the high of THg and THg_{HCl} concentrations, the mercury availability scores for location with overburden soil were changed to 4. Photographs collected in the field of all features evaluated were reviewed after the field event to determine if any feature evaluate had soils characteristic of overburden; if soils appeared to consist of overburden (reddish soils with low apparent organic matter), they were assigned a value of 4.

Several features that had been included in the field evaluations but that had preliminary ranking scores below the top quartile had final scores within the top quartile. This was due to the discovery of overburden at these locations and the high concentrations of THg in several overburden samples. The locations with increased final scores were ES5, ES9, ES10, ES11, ES14, and ES18.

5.0 FINAL RANKING AND RECOMMENDATIONS

The use of a ranking algorithm allowed for a data-driven evaluation of the 230 known features at the AQCP, but does leave open the possibility that some features responsible for mercury loading to the downstream watershed would not be evaluated. However, the ranking did capture a high proportion of large features or those with characteristics that might lead to erosion, for example

- 75% of the 48 (top 20%) largest features
- Features with ≥90% unvegetated surface area
- 80% of features with vegetation indicative of seeps
- 73% of features with known THg concentrations above background

The field evaluation was comprehensive and there were three main findings. The first was that the data review and visual evaluation led to the identification of unusual features observed on aerial photos or while in the field. The second was that field evaluation found only one feature composed of calcines that was not previously described – the calcines in Jacques Gulch between the repository and the AQCP boundary. The third significant finding was that overburden with THg concentrations likely above background were commonplace. Two features composed of overburden with THg concentrations above background were large landslides (WS48) or erosion scars far away from streams or drainages capable of transporting large volumes of material (ES6). Designing solutions to stop large landslides is beyond the scope of this document, and may not be warranted if the flux of solid phase materials to the watershed is small.

This report identifies features that are higher priority relative to the majority of features evaluated, which are characterized by known mercury bearing materials (calcines or overburden) eroding into surface water or in close proximity to surface water conveyances. The following sections describe these features, the factors leading to or causing erosion to the extent that they are known, and where appropriate, generally appropriate controls to contain or stabilize the wastes identified. However, the identification of these features does not necessarily establish their importance as loading sources, and further characterization may be required to select appropriate remedies, if necessary. The conceptual mitigation measures suggested in this report would require additional comprehensive evaluation to determine their ultimate viability, cost benefit and implementation timeline. It is possible that in time, other solutions that meet objectives could be considered, and the following recommendations should not be construed to limit future work to the concepts described in this document.

5.1.1 Calcine Paved Roads

The calcine pavement generally consists of a pale red to reddish brown, moderately well cemented gravel with sand and silt between 3 and 6 inches in thickness. The calcine-paved roads and trails are largely concentrated around Mine Hill and include much of the Randol Trail, Castillero Trail, Yellow Kid Trail, April Trail, and portions of the Mine Hill Trail between the Hacienda park entrance and Bull Run. WS9, the most highly

ranked, non-remediated feature in the final ranking, is a calcine paved road near the north shore of Guadalupe Reservoir; however, the area of the actual paving is small (Figure 1, Tile 2), and the high ranking is partially due to the proximity of the feature to the reservoir and the high mercury availability score attributed to calcines. URS_156, the second highest ranking non-remediated feature, was sampled where it intersected with a calcine paved road.

It was observed that in several instances where a calcine paved road or trail had been identified in a historical document, the extent of paving was less or more extensive than previously indicated. The roads were reclassified and organized with regard to discrete stretches of road between trail heads or junctions to aid in future identification. The roads and trails with calcine paving are indicated in Figure 1 for the final ranking, and the features identified as part of the preliminary ranking have been removed from the maps and ranking tables.

In general, it appeared that the calcine paved roads were stable and only eroding in isolated areas. Shallow erosional rills were observed in a number of places suggesting some direct erosion of the pavement surface is occurring. The dominant problem appears to be slumping of the road surface due to undercutting of the road edge by uncontrolled sheet flow across the road. This appears to be mostly occurring where an inboard drainage ditch intersects a swale or other change in grade or is blocked by slumping of the upslope cut. A number of locations were observed where calcine debris, probably generated from grading of the road has been pushed onto the outer road edge and is raveling down-slope.

It is recommended that they be left intact, but that drainage controls and maintenance procedures be instituted to prevent erosion. The following mitigation controls are suggested:

- Remove as much loose calcine debris as practical and relocate to a secure repository
- Repair/construct, monitor and maintain inboard drainage ditches directing run-off through culverts to dissipaters in existing swales
- Stabilize existing slumps and over steepened road edges using riprap revetment
- Instigate road maintenance procedures that reduce damage to calcine pavement

5.1.2 Jacques Gulch Calcines

We observed masses of cemented calcines and calcine float[1] in a 3,500 foot high gradient reach of Jacques Gulch Creek between a wetland forming in an impoundment below ES12 and the AQCP Boundary (Figure 1, tile 6; Photographs 5, 6, 7, and 8). Calcines of up to 7 feet in thickness were observed, dissected by the creek banks and flowing water, and cemented calcines formed a solid mass across the creek bed over extensive areas.

[1] Float is a geological term used to refer to material that is transported by erosion from a location of formation.

The remedial options in Jacques Gulch may include the removal of calcines to a controlled stockpile, such as the Mine Hill repository, and reconstruction of riparian habitat. To the extent possible, the mitigation measures in this area will adhere to the guideline specified in the California Department of Conservation (CDC) guidelines for the rehabilitation of disturbed lands (CDC, 2003), as this area may contain or be more proximal to sensitive habitat.

5.1.3 WS65, Enriquita Mine

This feature is an area of red soils on the Guadalupe Reservoir shoreline (Figure 1, Tile 2). It was not identified in any of the documents reviewed, but was observed in aerial photos. In general the waste consists of a dark red, moist to wet, loose silty sand with gravel, which was often observed near the location of mined ore bodies. The visible color on the shoreline appears to be the result of wave erosion of the lower margin of an approximately 200 foot wide waste pile extending down slope from mine workings associated with the Enriquita Mine. The waste appears to be relatively thin (<4 feet thick) at the shoreline. Active erosion and slumping into the Guadalupe Reservoir were observed (Photographs 9 and10, Appendix A). The THg concentrations in one composite sample were 42 mg/kg, but the THg_{HCl} concentration were low relative to the other locations, so it is not known how available the THg from this material is to methylating bacteria.

This area was considered for potential mitigation due to the high concentration of THg in the composite samples collected and the proximity to a water body with elevated fish tissue concentrations, but this area may require further characterization before selection as a remedial target. It is not known if the concentration of THg detected in the composite sample collected from this area is representative of this area. Because these are native materials (i.e., not roasted ore) it is possible that there are soils of similar concentration in the Guadalupe Reservoir watershed. Removal may have little or no effect on mass load of THg to the Guadalupe Reservoir, and controls on mercury methylation in the Guadalupe Reservoir may be sufficient to meet the numeric targets of the TMDL. In addition, it is possible that these materials were excavated by the development of the Guadalupe Reservoir, through grading or wave action, so the presence of materials may not necessarily be due to mining.

If selected as a remedial target, a mitigation approach would likely involve stripping the overburden below the high water level. Alternately, it may be possible to stabilize and armor the slope with riprap, and limit any exchange of mercury between the overburden and the overlying water using a geotextile membrane or cap.

5.2 Conclusions

This evaluation of the AQCP and STCP achieved several major goals:

- Collected and organized the extensive information on potential mine wastes at AQCP in a geodatabase
- Ranked and mapped the features based on erosion potential and interactions with surface water conveyances, including seeps

- Measured low mercury leachability in the presence of 0.5%-HCl acid
- Identified several areas of mine waste in contact with the upper Jacques Gulch, a relatively large surface water conveyance
- Catalogued the full extent of calcine-paved roads
- Identified general mitigation measures to address the high priority targets

An important aspect of this study has been that the ranking provides the SFRWQCB a prioritized list that can guide future efforts as the TMDL implementation proceeds and as monitoring continues. Due to ongoing maintenance of trails and roads at the AQCP, the County can use this list to identify features within the limits or vicinity of other projects. The ranking should be considered as a baseline for the period of study, and should be revisited as features change over time (e.g., landslides, road maintenance), regulatory standards change, or monitoring efforts increase or change the understanding of the Guadalupe River watershed.

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TABLES

Table 1
Final Feature Importance Scores, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	Feature Size Factor		Erosion Potential Factor Value[1]	Mercury Availability Factor Value[1]	Waste Site Importance Score[1]	Site Description[2]	Coordinates (NAD83)		Map Tile (Figure 1)[3]
	Area (ft^2)	Value[1]					X	Y	
	α = 0.2		β = 0.4	χ = 0.4					
URS_156	55855	5.0	3.8	5.0	4.51	Scarp/dump/waste, Overburden Soil, Calcines	6170571.75	1891245.23	TILES 6 & 7
WS59	247170	5.0	3.8	4.5	4.33	Contaminated Creek, South of Los Capitancillos Creek	6169311.37	1886712.72	TILES 6, 7 & 8
WS9	77956	5.0	3.0	5.0	4.21	Calcine Paved Road at North End of Gaudalupe Reservior	6161497.40	1898351.64	TILE 2
WS24	134163	5.0	3.6	4.0	4.05	America Mine Dump; Main American Mine Dump Site	6167226.68	1891070.84	TILE 6
ES6	11859	4.0	4.0	4.0	3.98	Erosional Scar, Overburden Soil	6167307.80	1891335.24	TILES 4 & 6
WS43	9229	4.0	3.3	4.5	3.93	Contaminated Colluvium Adjacent to Road, East Side of Juan Vega Opencut Area	6170946.17	1890693.61	TILES 6 & 7
WS48	173627	5.0	3.7	3.5	3.87	Delgade Tunnel Dump and Opencut	6169214.99	1887974.82	TILES 6, 7 & 8
WS52	459095	5.0	3.7	3.5	3.87	China or Main Tunnel Dump, Harry Shafts and Tunnel Dump	6171171.81	1889620.43	TILE 7
URS_162	184975	5.0	3.0	4.0	3.81	Scarp/dump/waste, Calcines, Soil, Overburden Soil	6171108.60	1890728.74	TILE 7
WS68	227907	5.0	3.9	3.0	3.78	Dump West of Mine Hill Opencut	6168370.84	1889118.48	TILES 6 & 7
ES9	231523	5.0	2.3	4.5	3.73	Erosional Scar, Overburden Soil	6168988.43	1889454.44	TILES 6 & 7
WS61	363088	5.0	3.5	3.0	3.62	Buena Vista Shaft, and Randol Dumps	6170330.05	1893220.74	TILE 5
WS40	9355	4.0	2.9	4.0	3.58	Contaminated Colluvium Adjacent to Haul Road, South Saint George Area	6169375.54	1890779.81	TILES 6 & 7
URS_145	88188	5.0	2.8	3.5	3.53	Scarp/dump/waste, Overburden Soil	6169908.05	1890215.89	TILES 6 & 7
URS_185	9919	4.0	3.3	3.5	3.53	Scarp/dump/waste, Overburden Soil	6170756.91	1889485.67	TILES 6 & 7
WS38	1963	2.0	2.8	5.0	3.53	Calcines Dump adjacent to dismantled retort from 1950s	6171527.11	1890127.47	TILE 7
WS58	97519	5.0	3.3	3.0	3.51	Contaminated Creek, Deep Gulch Creek	6173877.89	1888662.25	TILE 7
URS_154	15184	4.0	3.8	3.0	3.51	Scarp/dump/waste, Unknown Material Type	6170286.16	1890996.82	TILES 6 & 7
ES8	137948	5.0	2.7	3.5	3.50	Erosional Scar, Overburden Soil	6168533.81	1890283.34	TILES 6 & 7
URS_273	44136	5.0	2.7	3.5	3.50	Unnamed Road West of San Francisco Opencut	6169333.69	1889408.26	TILES 6 & 7
URS_214	75408	5.0	2.7	3.5	3.47	Scarp/dump/waste, Overburden	6171562.79	1891135.92	TILE 7
WS23	77294	5.0	2.7	3.5	3.47	Contaminated Creek, Los Capitancillos Creek to Guadalupe Reservoir	6164986.24	1891032.37	TILES 4 & 6
WS70	29361	4.0	3.2	3.5	3.46	Waste Site SE of Harry Tunnel	6172132.17	1888924.69	TILE 7
URS_161	2718	2.0	4.1	3.5	3.45	Scarp/dump/waste, Overburden Soil	6169958.88	1891662.77	TILES 6 & 7
URS_274	83742	5.0	3.5	2.5	3.41	Soil	6168952.86	1889302.50	TILES 6 & 7
WS15	517225	5.0	3.0	3.0	3.41	Providencia Opencut, with waste piles downslope	6163589.29	1893971.08	TILE 4
WS65	18540	4.0	2.9	3.5	3.37	Guadalupe Reservoir shoreline overburden	6161986.75	1895909.72	TILE 2
WS36b	37420	4.0	3.4	3.0	3.35	Satellite Day Tunnel Dump	6172304.87	1892011.67	TILE 7
WS2	1963	2.0	2.4	5.0	3.34	Senator Mine Furnace Site	6156848.83	1902030.62	TILE 1
WS3b	49346	5.0	2.8	3.0	3.33	Scarp/dump/waste, Unknown Material Type	6156000.94	1902393.34	TILE 1
WS39	33032	4.0	3.3	3.0	3.32	Scarp/dump/waste, Soil, Overburden, Ferric Slag	6171346.92	1889819.85	TILE 7
WS20	124587	5.0	3.3	2.5	3.31	Contaminated Creek, Map of Area of IS-5 Unnamed Creek near Mockingbird Hil	6169921.14	1894376.44	TILES 3 & 5
WS13	1963	2.0	2.3	5.0	3.31	Enriquitta Mine Retort Site	6162461.34	1895197.20	TILE 4
ES5	20406	4.0	2.7	3.5	3.30	Erosional Scar, Overburden Soil	6165651.10	1893502.06	TILE 4
WS5	63129	5.0	2.2	3.5	3.29	Los Capitancillos Creek, Creek at North End of Park near McAbee Road	6158027.27	1902892.33	TILE 1
WS31b	133850	5.0	2.7	3.0	3.28	Dump Site East of Almaden Shaft	6169572.17	1889961.32	TILES 6 & 7
WS7b	1964	2.0	2.2	5.0	3.27	San Mateo Calcines Pile	6159083.58	1898678.71	TILE 2
URS_150	9612	4.0	3.2	3.0	3.27	Scarp/dump/waste, Unknown Material Type	6170340.13	1890867.97	TILES 6 & 7
ES18	3452	3.0	3.2	3.5	3.26	Erosional Scar, Overburden Soil	6168025.54	1891413.21	TILES 4 & 6

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	Area (ft^2)	Value[1]					X	Y	
	α = 0.2		β = 0.4	χ = 0.4					
WS60	142480	5.0	4.1	1.5	3.25	Santa Isabel Shaft Dump	6169439.71	1892674.57	TILE 5
URS_139	3183	3.0	3.6	3.0	3.23	Scarp/dump/waste, Unknown Material Type	6169171.69	1891238.01	TILES 6 & 7
WS64d	21785	4.0	3.0	3.0	3.21	Satellite Dump to Mine Hill Opencuts	6169962.82	1889429.29	TILES 6 & 7
URS_144	34214	4.0	3.0	3.0	3.21	Scarp/dump/waste, Unknown Material Type	6169078.82	1890503.85	TILES 6 & 7
URS_181	9273	4.0	2.9	3.0	3.18	Scarp/dump/waste, Unknown Material Type	6169918.21	1889220.22	TILES 6 & 7
URS_102	4353	3.0	3.4	3.0	3.16	Scarp/dump/waste, Unknown Material Type	6167108.87	1893264.85	TILE 4
ES11	83777	5.0	2.4	3.0	3.16	Erosional Scar, Unknown Material Type	6169657.06	1889398.95	TILES 6 & 7
WS32	50667	5.0	3.4	2.0	3.15	Victoria Shaft Dump	6169880.76	1891429.25	TILES 6 & 7
URS_212	15102	4.0	2.8	3.0	3.13	Scarp/dump/waste, Unknown Material Type	6172476.87	1890849.14	TILE 7
ES4	13357	4.0	3.8	2.0	3.13	Erosional Scar, Soil	6168158.34	1887629.31	TILE 6
URS_272	16959	4.0	1.8	4.0	3.11	Colluvium Along Road South of San Cristobal Tunnel	6169306.26	1889763.46	TILES 6 & 7
URS_202	2425	2.0	3.8	3.0	3.11	Scarp/dump/waste, Unknown Material Type	6171942.87	1888807.89	TILE 7
URS_180	11054	4.0	2.7	3.0	3.09	Scarp/dump/waste, Unknown Material Type	6169923.93	1889119.67	TILES 6 & 7
URS_109	2851	3.0	3.2	3.0	3.08	Scarp/dump/waste, Unknown Material Type	6168217.95	1892576.45	TILES 4 & 5
URS_169	99905	5.0	4.2	1.0	3.08	Landslide, Soil	6167661.35	1889155.71	TILE 6
WS61b	8977	4.0	3.7	2.0	3.07	Satellite Buena Vista Shaft Dump	6169977.64	1893480.08	TILE 5
URS_178	3084	3.0	3.2	3.0	3.07	Scarp/dump/waste, Unknown Material Type	6169584.55	1888961.20	TILES 6 & 7
WS69	41881	4.0	2.6	3.0	3.06	Waste Site East of Harry Tunnel	6172213.84	1889292.47	TILE 7
ES10	93426	5.0	2.1	3.0	3.06	Erosional Scar, Unknown Material Type	6170101.08	1889985.36	TILES 6 & 7
URS_129	17420	4.0	2.6	3.0	3.05	Scarp/dump/waste, Unknown Material Type	6168631.21	1890441.37	TILES 6 & 7
URS_138	23391	4.0	2.6	3.0	3.05	Scarp/dump/waste, Unknown Material Type	6168597.93	1890339.44	TILES 6 & 7
URS_206	2666	2.0	3.6	3.0	3.05	Scarp/dump/waste, Unknown Material Type	6171810.54	1889224.61	TILE 7
URS_166	9188	4.0	2.6	3.0	3.05	Scarp/dump/waste, Unknown Material Type	6168165.11	1890233.84	TILE 6
URS_167	3265	3.0	3.1	3.0	3.05	Scarp/dump/waste, Unknown Material Type	6167919.02	1889798.07	TILE 6
WS55	1963	2.0	3.1	3.5	3.05	Opencut below PG&E Transmission Lines, South Side of Deep Gulch	6172600.72	1887967.85	TILES 7 & 8
URS_123	8978	4.0	2.6	3.0	3.02	Scarp/dump/waste, Unknown Material Type	6168003.34	1890802.11	TILE 6
URS_179	6317	3.0	3.1	3.0	3.02	Scarp/dump/waste, Unknown Material Type	6169994.80	1889053.82	TILES 6 & 7
URS_140	2661	2.0	3.5	3.0	3.02	Scarp/dump/waste, Unknown Material Type	6169282.29	1891175.24	TILES 6 & 7
URS_147	8604	3.0	3.0	3.0	3.00	Scarp/dump/waste, Unknown Material Type	6170053.37	1890563.59	TILES 6 & 7
WS33	64035	5.0	4.0	1.0	3.00	Randol Shaft Dump	6170232.90	1891684.79	TILES 6 & 7
WS53b	9854	4.0	3.5	2.0	3.00	Open Cut Dump	6171491.23	1888840.34	TILE 7
URS_101	3031	3.0	3.0	3.0	2.99	Scarp/dump/waste, Unknown Material Type	6166544.35	1893396.13	TILE 4
WS54d	4172	3.0	2.9	3.0	2.97	Satellite Deep Gulch Tunnel Dump	6172212.04	1888480.87	TILE 7
URS_157	2630	2.0	3.4	3.0	2.97	Scarp/dump/waste, Unknown Material Type	6170136.27	1891282.20	TILES 6 & 7
URS_204	22324	4.0	3.4	2.0	2.97	Scarp/dump/waste, Soil	6171287.07	1888916.97	TILE 7
URS_142	7982	3.0	2.9	3.0	2.95	Scarp/dump/waste, Unknown Material Type	6169237.96	1890737.10	TILES 6 & 7
WS36	176001	5.0	3.4	1.5	2.95	Day Tunnel Dump	6171973.65	1892035.97	TILES 5 & 7
WS24b	21415	4.0	3.4	2.0	2.95	American Mine Satalite Portal Dump	6166493.51	1890830.42	TILE 6
URS_155	1229	1.0	3.9	3.0	2.94	Scarp/dump/waste, Unknown Material Type	6170171.12	1891142.56	TILES 6 & 7
ES3	124763	5.0	2.9	2.0	2.94	Erosional Scar, Soil	6167736.00	1887788.06	TILE 6
WS18	11651	4.0	2.3	3.0	2.93	Area of Contaminated Colluvium Along Road-Side, Mine Hill Trail Near North America Tunnel	6165873.47	1893260.23	TILE 4
WS66	26383	4.0	3.3	2.0	2.93	April Tunnel Dump	6169387.53	1891533.04	TILES 6 & 7
ES14	45426	5.0	2.8	2.0	2.93	Erosional Scar, Soil	6171822.12	1887602.37	TILE 8
URS_211	8306	3.0	2.8	3.0	2.93	Scarp/dump/waste, Unknown Material Type	6173064.10	1890521.28	TILE 7
WS21	99625	5.0	2.8	2.0	2.93	Contaminated Creek, Unnamed Creek North of Cape Horn Pass	6171737.22	1894200.52	TILES 3 & 5
URS_141	1760	1.0	3.8	3.0	2.92	Scarp/dump/waste, Unknown Material Type	6169147.19	1891105.46	TILES 6 & 7
URS_130	10425	4.0	2.3	3.0	2.91	Scarp/dump/waste, Unknown Material Type	6168822.93	1890371.22	TILES 6 & 7
WS54f	4358	3.0	2.7	3.0	2.90	Satellite Deep Gulch Tunnel Dump	6172294.59	1888288.07	TILES 7 & 8

Table 1
Final Feature Importance Scores, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	Feature Size Factor		Erosion Potential Factor Value[1]	Mercury Availability Factor Value[1]	Waste Site Importance Score[1]	Site Description[2]	Coordinates (NAD83)		Map Tile (Figure 1)[3]
	Area (ft^2)	Value[1]					X	Y	
	α = 0.2		β = 0.4	χ = 0.4					
WS54c	2937	3.0	2.7	3.0	2.90	Satellite Deep Gulch Tunnel Dump	6172277.09	1888553.29	TILE 7
URS_119	650	1.0	3.7	3.0	2.88	Scarp/dump/waste, Unknown Material Type	6168407.13	1890949.77	TILES 6 & 7
URS_107	57924	5.0	3.7	1.0	2.87	Landslide, Soil	6166924.10	1892643.16	TILE 4
URS_108	353330	5.0	3.7	1.0	2.87	Landslide, Soil	6168220.27	1892383.76	TILES 4, 5 & 7
URS_191	172106	5.0	3.7	1.0	2.87	Landslide, Soil	6173919.81	1887447.07	TILE 8
URS_146	2664	2.0	3.2	3.0	2.86	Scarp/dump/waste, Unknown Material Type	6169913.28	1890710.54	TILES 6 & 7
WS64c	11917	4.0	2.1	3.0	2.86	Satellite Dump to Mine Hill Opencuts	6170146.88	1889343.81	TILES 6 & 7
WS68b	16096	4.0	2.1	3.0	2.85	Scarp/dump/waste, Overburden	6168664.72	1889400.39	TILES 6 & 7
WS54e	5165	3.0	2.6	3.0	2.85	Satellite Deep Gulch Tunnel Dump	6172224.70	1888286.43	TILES 7 & 8
WS14	1963	1.0	1.6	5.0	2.83	Enriquita Mine Retort Calcines Pile	6162155.45	1894965.22	TILE 4
WS24d	10546	4.0	3.1	2.0	2.83	American Mine Satalite Portal Dump	6167116.24	1891033.20	TILE 6
ES16	21857	4.0	3.1	2.0	2.83	Erosional Scar, Soil	6165883.06	1891862.46	TILE 4
WS30	4433	3.0	3.1	2.5	2.83	April Tunnel Dump	6169676.98	1891197.18	TILES 6 & 7
WS24e	3779	3.0	3.6	2.0	2.83	American Mine Satalite Portal Dump	6166497.51	1891505.30	TILES 4 & 6
WS24l	3614	3.0	3.6	2.0	2.83	American Mine Satalite Portal Dump	6167308.74	1890793.13	TILE 6
WS54h	3528	3.0	2.5	3.0	2.82	Satellite Deep Gulch Tunnel Dump	6171834.42	1888376.14	TILE 7
URS_124	601750	5.0	3.5	1.0	2.80	Landslide, Soil	6168923.29	1891796.22	TILES 4, 5, 6 & 7
URS_168	159408	5.0	3.5	1.0	2.80	Landslide, Soil	6167701.10	1889770.74	TILE 6
URS_175	322205	5.0	3.5	1.0	2.80	Landslide, Soil	6169032.08	1887922.74	TILES 6, 7 & 8
URS_207	2952	3.0	2.5	3.0	2.80	Scarp/dump/waste, Unknown Material Type	6171409.33	1889479.90	TILE 7
URS_128	5953	3.0	2.5	3.0	2.80	Scarp/dump/waste, Unknown Material Type	6168512.47	1890597.98	TILES 6 & 7
URS_111	12914	4.0	2.0	3.0	2.80	Scarp/dump/waste, Unknown Material Type	6166757.23	1891723.37	TILES 4 & 6
URS_270	6947	3.0	2.0	3.5	2.80	Hacienda Area, Unknown Material Type	6175192.17	1888789.40	TILE 7
URS_116	6483	3.0	2.4	3.0	2.78	Scarp/dump/waste, Unknown Material Type	6168127.35	1890951.32	TILE 6
URS_186	38411	4.0	3.9	1.0	2.78	Landslide, Soil	6170023.54	1887269.38	TILES 6 & 8
URS_218	2084	2.0	2.9	3.0	2.77	Scarp/dump/waste, Unknown Material Type	6173587.63	1891776.14	TILE 7
WS68c	9583	4.0	1.9	3.0	2.76	Scarp/dump/waste, Overburden	6168863.67	1889438.18	TILES 6 & 7
URS_137	4809	3.0	2.4	3.0	2.76	Scarp/dump/waste, Unknown Material Type	6169199.74	1890311.81	TILES 6 & 7
URS_208	1735	1.0	3.4	3.0	2.75	Scarp/dump/waste, Unknown Material Type	6172700.35	1889573.48	TILE 7
URS_194	5121	3.0	2.4	3.0	2.74	Scarp/dump/waste, Unknown Material Type	6174498.99	1886702.74	TILE 8
URS_187	1219	1.0	3.3	3.0	2.73	Scarp/dump/waste, Unknown Material Type	6173479.82	1886991.67	TILE 8
WS64b	4728	3.0	2.3	3.0	2.73	Satellite Dump to Mine Hill Opencuts	6170642.63	1889804.36	TILES 6 & 7
URS_205	2235	2.0	2.8	3.0	2.73	Scarp/dump/waste, Unknown Material Type	6171957.55	1889062.84	TILE 7
URS_118	4187	3.0	2.3	3.0	2.73	Scarp/dump/waste, Unknown Material Type	6168509.20	1891176.93	TILES 6 & 7
URS_103	1659	1.0	3.3	3.0	2.72	Scarp/dump/waste, Unknown Material Type	6167705.64	1893249.99	TILE 4
URS_213	4285	3.0	2.3	3.0	2.71	Scarp/dump/waste, Unknown Material Type	6171681.51	1891396.04	TILE 7
URS_184	2369	2.0	2.7	3.0	2.70	Scarp/dump/waste, Unknown Material Type	6170440.25	1889303.37	TILES 6 & 7
WS28	1963	2.0	2.7	3.0	2.70	San Pedro OpenCut Dump	6168153.85	1890804.26	TILE 6
WS54b	2182	2.0	2.7	3.0	2.70	Satellite Deep Gulch Tunnel Dump	6172869.48	1888541.38	TILE 7
URS_215	1931	1.0	3.2	3.0	2.70	Scarp/dump/waste, Unknown Material Type	6170364.46	1892485.44	TILE 5
URS_117	2702	2.0	2.7	3.0	2.69	Scarp/dump/waste, Unknown Material Type	6168436.30	1891108.63	TILES 6 & 7
URS_201	881	1.0	3.2	3.0	2.68	Scarp/dump/waste, Unknown Material Type	6171925.54	1888867.29	TILE 7
URS_189	16910	4.0	3.7	1.0	2.68	Landslide, Soil	6173688.27	1887279.16	TILE 8
URS_160	1982	2.0	2.7	3.0	2.68	Scarp/dump/waste, Unknown Material Type	6170890.71	1891615.90	TILES 6 & 7
URS_100	40640	4.0	3.7	1.0	2.67	Landslide, Soil	6167012.50	1893741.79	TILE 4
URS_152	6381	3.0	2.2	3.0	2.67	Scarp/dump/waste, Unknown Material Type	6170956.05	1891118.01	TILES 6 & 7
WS3c	4086	3.0	2.2	3.0	2.67	Scarp/dump/waste, Unknown Material Type	6155794.76	1902276.59	TILE 1
URS_151	4815	3.0	2.2	3.0	2.67	Scarp/dump/waste, Unknown Material Type	6170752.43	1890909.57	TILES 6 & 7
URS_188	1104	1.0	3.2	3.0	2.66	Scarp/dump/waste, Unknown Material Type	6173273.37	1887308.61	TILE 8
URS_112	5931	3.0	2.1	3.0	2.66	Scarp/dump/waste, Unknown Material Type	6166877.60	1891609.92	TILES 4 & 6

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Santa Clara County Parks Department

URS ID	Feature Size Factor		Erosion Potential Factor Value[1]	Mercury Availability Factor Value[1]	Waste Site Importance Score[1]	Site Description[2]	Coordinates (NAD83)		Map Tile (Figure 1)[3]
	Area (ft^2)	Value[1]					X	Y	
	α = 0.2		β = 0.4	χ = 0.4					
URS_113	4103	3.0	2.1	3.0	2.66	Scarp/dump/waste, Unknown Material Type	6166905.06	1891572.71	TILES 4 & 6
WS24f	3035	3.0	3.1	2.0	2.65	American Mine Satalite Portal Dump	6166511.28	1891651.45	TILES 4 & 6
WS35	1963	2.0	2.1	3.5	2.63	Roosevelt Tunnel Dump/Carson Tunnel Dump	6170973.54	1890703.95	TILES 6 & 7
URS_183	2150	2.0	2.5	3.0	2.62	Scarp/dump/waste, Unknown Material Type	6170484.09	1889343.67	TILES 6 & 7
URS_196	1925	1.0	3.0	3.0	2.61	Scarp/dump/waste, Unknown Material Type	6172595.10	1887647.29	TILE 8
WS54	45782	5.0	3.0	1.0	2.61	Deep Gulch Tunnel Dump	6172614.02	1888647.80	TILE 7
WS11	1963	2.0	2.5	3.0	2.60	Enriquetta Mine Dumps	6162505.24	1896069.64	TILE 2
WS37	1963	2.0	2.0	3.5	2.60	Great Eastern Tunnel Dump	6171408.20	1891495.25	TILE 7
WS24c	4209	3.0	3.0	2.0	2.59	American Mine Satalite Portal Dump	6166569.13	1891100.87	TILE 6
ES17	6502	3.0	3.0	2.0	2.58	Erosional Scar, Serpentine	6167894.05	1889318.12	TILE 6
URS_105	1897	1.0	3.0	3.0	2.58	Scarp/dump/waste, Unknown Material Type	6167649.60	1892971.35	TILE 4
URS_192	1346	1.0	3.0	3.0	2.58	Scarp/dump/waste, Unknown Material Type	6173269.58	1887878.15	TILES 7 & 8
URS_209	7867	3.0	1.9	3.0	2.58	Scarp/dump/waste, Unknown Material Type	6170330.59	1888847.65	TILES 6 & 7
WS8	1963	2.0	2.4	3.0	2.56	San Mateo Mine OpenCuts	6159871.60	1898322.39	TILE 2
URS_106	1851	1.0	2.9	3.0	2.54	Scarp/dump/waste, Unknown Material Type	6167600.03	1892864.80	TILE 4
URS_193	765	1.0	2.9	3.0	2.54	Scarp/dump/waste, Unknown Material Type	6173102.48	1887245.12	TILE 8
URS_176	5896	3.0	3.8	1.0	2.54	Landslide, Soil	6169328.67	1888499.34	TILES 6 & 7
URS_199	2035	2.0	2.3	3.0	2.53	Scarp/dump/waste, Unknown Material Type	6172105.99	1888717.59	TILE 7
WS31	10043	4.0	1.8	2.5	2.51	Almaden Shaft-San Pedro Opencut; 10 acre area including San Pedro Opencut dump	6169138.66	1890070.44	TILES 6 & 7
WS72	1963	2.0	2.3	3.0	2.51	Senator Mine Site	6156930.93	1902266.50	TILE 1
WS53	1963	2.0	2.7	2.5	2.49	Opencut below PG&E Transmission Lines, south side of Deep Gulch and Northwest of Hidalgo Opencut	6171491.79	1888669.99	TILE 7
URS_126	3179	3.0	1.7	3.0	2.48	Scarp/dump/waste, Unknown Material Type	6168762.18	1890632.29	TILES 6 & 7
WS16	1963	2.0	2.2	3.0	2.47	Yellow Kid Jr. Dumps	6164019.65	1893633.41	TILE 4
URS_159	854	1.0	2.7	3.0	2.47	Scarp/dump/waste, Unknown Material Type	6171001.21	1891755.07	TILE 7
URS_135	2110	2.0	2.1	3.0	2.46	Scarp/dump/waste, Unknown Material Type	6168899.46	1889974.52	TILES 6 & 7
URS_217	29394	4.0	3.1	1.0	2.45	Landslide, Soil	6169725.20	1892865.28	TILE 5
URS_195	510	1.0	2.6	3.0	2.44	Scarp/dump/waste, Unknown Material Type	6172459.84	1887231.36	TILE 8
URS_148	3705	3.0	1.6	3.0	2.44	Scarp/dump/waste, Unknown Material Type	6170444.70	1890671.22	TILES 6 & 7
URS_165	2382	2.0	2.1	3.0	2.43	Scarp/dump/waste, Unknown Material Type	6172147.86	1890544.55	TILE 7
WS4	6454	3.0	1.5	3.0	2.42	Senator Mine Shaft Dumps, Senator Mine Area	6155850.20	1901601.18	TILE 1
URS_114	3292	3.0	1.5	3.0	2.42	Scarp/dump/waste, Unknown Material Type	6167897.33	1891314.49	TILES 4 & 6
URS_200	1367	1.0	2.5	3.0	2.42	Scarp/dump/waste, Unknown Material Type	6171925.30	1888941.65	TILE 7
URS_210	7506	3.0	3.5	1.0	2.41	Landslide, Unknown Material Type	6170942.08	1889209.09	TILES 6 & 7
URS_110	1924	1.0	2.5	3.0	2.41	Scarp/dump/waste, Unknown Material Type	6166610.73	1891848.74	TILE 4
URS_190	601	1.0	2.5	3.0	2.41	Scarp/dump/waste, Unknown Material Type	6168325.83	1887512.94	TILE 6
WS24h	2827	2.0	3.0	2.0	2.41	American Mine Satalite Portal Dump	6167389.27	1891988.04	TILE 4
URS_122	1612	1.0	2.5	3.0	2.39	Scarp/dump/waste, Unknown Material Type	6167571.96	1890592.47	TILE 6
URS_134	2610	2.0	1.9	3.0	2.36	Scarp/dump/waste, Unknown Material Type	6168840.63	1889958.43	TILES 6 & 7
URS_197	880	1.0	2.4	3.0	2.36	Scarp/dump/waste, Unknown Material Type	6172401.21	1888163.09	TILES 7 & 8
URS_158	1284	1.0	2.4	3.0	2.35	Scarp/dump/waste, Unknown Material Type	6171047.70	1891858.87	TILE 7
WS6	8036	3.0	3.4	1.0	2.35	Senator Mine, 260-foot tunnel entrance dump	6155548.62	1900317.87	TILE 1
URS_203	1226	1.0	2.3	3.0	2.33	Scarp/dump/waste, Unknown Material Type	6171897.33	1888674.61	TILE 7
URS_170	1145	1.0	2.3	3.0	2.32	Scarp/dump/waste, Unknown Material Type	6168534.39	1889347.51	TILES 6 & 7
URS_127	1387	1.0	2.3	3.0	2.31	Scarp/dump/waste, Unknown Material Type	6168357.51	1890570.72	TILES 6 & 7
WS47	1963	2.0	1.3	3.5	2.30	San Francisco Opencut	6169351.94	1889667.47	TILES 6 & 7
URS_216	644	1.0	2.2	3.0	2.30	Scarp/dump/waste, Unknown Material Type	6170188.21	1892978.28	TILE 5
ES13	5715	3.0	2.2	2.0	2.30	Erosional Scar, Soil	6170234.27	1887924.67	TILES 6, 7 & 8
URS_104	987	1.0	2.2	3.0	2.30	Scarp/dump/waste, Unknown Material Type	6167924.59	1893098.87	TILE 4
WS17	1963	2.0	2.2	2.5	2.29	Area of Bulldozer Trenches adjacent to Mine Hill	6165764.51	1893891.30	TILE 4
URS_171	313	1.0	2.2	3.0	2.26	Scarp/dump/waste, Unknown Material Type	6168980.66	1889275.86	TILES 6 & 7

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Santa Clara County Parks Department

URS ID	Feature Size Factor		Erosion Potential	Mercury Availability	Waste Site Importance	Site Description[2]	Coordinates (NAD83)		Map Tile
	Area (ft^2)	Value[1]	Factor Value[1]	Factor Value[1]	Score[1]		X	Y	(Figure 1)[3]
	α = 0.2		β = 0.4	χ = 0.4					
WS1	1963	2.0	2.6	2.0	2.26	Ground disturbed by unproductive cuts and trenches in 1920s	6156791.58	1902764.40	TILE 1
URS_131	730	1.0	2.1	3.0	2.26	Scarp/dump/waste, Unknown Material Type	6168845.56	1890180.13	TILES 6 & 7
URS_143	861	1.0	2.1	3.0	2.23	Scarp/dump/waste, Unknown Material Type	6169465.96	1890736.08	TILES 6 & 7
URS_198	623	1.0	2.1	3.0	2.23	Scarp/dump/waste, Unknown Material Type	6172496.87	1888339.58	TILE 7
URS_115	2264	2.0	1.5	3.0	2.22	Scarp/dump/waste, Unknown Material Type	6167924.14	1891295.11	TILES 4 & 6
URS_136	2490	2.0	1.5	3.0	2.22	Scarp/dump/waste, Unknown Material Type	6168685.79	1889820.07	TILES 6 & 7
ES2	1963	2.0	2.5	2.0	2.20	Erosional Scar Below Calcines Paved Road, Soil	6161728.76	1897651.66	TILE 2
URS_125	1962	1.0	2.0	3.0	2.20	Scarp/dump/waste, Unknown Material Type	6168645.94	1890797.09	TILES 6 & 7
WS12	1963	2.0	1.9	2.5	2.18	Prospect Shaft No.3 waste rock dump	6164486.04	1896168.40	TILE 2
URS_172	1671	1.0	1.9	3.0	2.14	Scarp/dump/waste, Unknown Material Type	6168817.06	1889288.01	TILES 6 & 7
URS_174	1512	1.0	1.8	3.0	2.11	Scarp/dump/waste, Unknown Material Type	6168563.53	1889505.52	TILES 6 & 7
URS_163	321	1.0	1.8	3.0	2.11	Scarp/dump/waste, Unknown Material Type	6171186.38	1890586.03	TILE 7
WS65b	2478	2.0	2.3	2.0	2.11	Soil	6161684.16	1895551.45	TILES 2 & 4
URS_121	1763	1.0	1.7	3.0	2.09	Scarp/dump/waste, Unknown Material Type	6167963.48	1890573.44	TILE 6
URS_153	1126	1.0	1.7	3.0	2.08	Scarp/dump/waste, Unknown Material Type	6170872.45	1891109.30	TILES 6 & 7
URS_132	831	1.0	1.7	3.0	2.06	Scarp/dump/waste, Unknown Material Type	6168761.85	1890054.55	TILES 6 & 7
URS_133	1149	1.0	1.7	3.0	2.06	Scarp/dump/waste, Unknown Material Type	6168791.95	1890027.66	TILES 6 & 7
URS_173	883	1.0	1.7	3.0	2.06	Scarp/dump/waste, Unknown Material Type	6168746.41	1889331.59	TILES 6 & 7
URS_164	1145	1.0	1.6	3.0	2.03	Scarp/dump/waste, Unknown Material Type	6171757.44	1890532.18	TILE 7
WS29	1963	2.0	3.0	1.0	1.98	Catharine Opencut	6168365.61	1891428.38	TILES 4, 6 & 7
WS51	1963	2.0	2.9	1.0	1.98	Encline Railroad Dump	6172060.18	1889723.19	TILE 7
WS24g	1895	1.0	2.1	2.0	1.86	American Mine Satalite Portal Dump	6167281.41	1891806.76	TILE 4
WS10	1963	1.0	2.0	2.0	1.80	Colluvial Soil along Haul Road, Hillside North End of Randol Trail	6164196.14	1897870.55	TILE 2
WS46	1963	2.0	2.4	1.0	1.76	America Mine Satellite Tunnel Dump	6166100.35	1890260.76	TILE 6
WS34	1963	2.0	2.3	1.0	1.73	Santa Rita Shaft Dump, and Juan Vega Opencuts	6170198.96	1890765.25	TILES 6 & 7
WS71	1963	2.0	1.7	1.0	1.46	Mine Hill OpenCuts	6170354.99	1889823.50	TILES 6 & 7

Notes:

[1]Detailed scoring information can be found in Tables 2 and 3. α, β, and χ refer to weighting parameters to assign importance to the factors. The selection of the values is discussed in the memorandum.
[2]SIte descriptions were taken from various original sources.
[3]Please note that some portion of the shapefile may be on a tile, but the label may not be printed on that tile.

Table 2
Scoring Matrix, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	% Bare Ground[2]	% Coverage Grasses[2]	% Coverage, Shrubs[2]	% Coverage, Trees[2]	Vegetative Cover Score	Average Slope		Proximity to Landslide		Vegetation Indicative of Seep		FEATURE STABILITY FACTOR	Distance to Drainage (ft)		Drainage Area Above Feature (ft^2)	Mean Watershed Slope	Drainage Flow Factor		DRAINAGE CHARACTERISTICS FACTOR	EROSION POTENTIAL	THg (mg/kg)		Mercury Availability[3]	MERCURY AVAILABILITY FACTOR	Shape Area (ft^2)	
						Value	Score	Value	Score	Value	Score		Value	Score	Value	Value	Value	Score			Value	Score			Value	Score
ES1	0	57	43	0	4	19	3	162	5			4	0	4	297900	16.8	5001452	4	4	4		5	5	5.0	1963	2
ES10	6	20	55	20	2	14	2	876	3			2	315	1	74700	12.0	892730	3	2	2		3	3	3.0	93426	5
ES11	0	99	1	0	4	10	1	750	3			2	616	1	156600	15.5	2422868	4	3	2		3	3	3.0	83777	5
ES12	2	78	20	0	4	17	2	98	5	YES	5	4	9	4	925200	17.0	15712418	5	5	4		3	1	2.0	340142	5
ES13	0	89	11	0	4	5	1	371	4			3	83	3	9000	7.6	68453	1	2	2		3	1	2.0	5715	3
ES14	2	95	3	0	4	16	2	1499	1			2	0	4	155700	15.8	2452724	4	4	3		3	1	2.0	45426	5
ES16	6	20	74	0	2	28	5	920	2			3	62	4	55800	23.4	1306042	3	4	3		3	1	2.0	21857	4
ES17	100	0	0	0	5	0	1	31	5			3	174	3	30600	26.7	818402	3	3	3		3	1	2.0	6502	3
ES18	100	0	0	0	5	28	5	280	5			5	159	3	18000	9.9	178109	1	2	3		3	4	3.5	3452	3
ES2	12	88	0	0	4	22	4	6447	1			3	111	4	8100	18.8	152310	1	3	3		3	1	2.0	1963	2
ES3	69	31	0	0	5	4	1	613	4			3	78	4	89100	4.6	411163	2	3	3		3	1	2.0	124763	5
ES4	0	98	0	2	4	19	3	550	4			4	0	5	106200	10.5	1113089	3	4	4		3	1	2.0	13357	4
ES5	39	50	11	0	4	13	2	1171	2			3	186	3	108900	12.9	1403580	3	3	3		3	4	3.5	20406	4
ES6	20	63	12	5	4	28	5	730	3			4	19	5	53100	20.7	1100243	3	4	4	10	4	4	4.0	11859	4
ES8	10	27	6	56	1	22	4	415	4			3	344	2	211500	18.2	3839057	4	3	3		3	4	3.5	137948	5
ES9	3	1	76	21	2	11	1	681	3			2	339	2	244800	9.1	2226190	4	3	2	26	5	4	4.5	231523	5
URS_100	0	0	31	69	1	24	4	0	5			3	0	5	580500	24.7	14315418	5	5	4		1	1	1.0	40640	4
URS_101	0	0	0	100	1	26	4	414	4			3	137	4	40500	23.7	958422	3	4	3		3	3	3.0	3031	3
URS_102	0	67	0	33	4	32	5	270	5			5	261	3	9900	28.7	284588	2	3	3		3	3	3.0	4353	3
URS_103	0	0	0	100	1	30	5	527	4			3	34	5	45000	31.3	1407890	3	4	3		3	3	3.0	1659	1
URS_104	0	0	0	100	1	25	4	359	4			3	244	3	6300	28.3	178585	1	2	2		3	3	3.0	987	1
URS_105	0	0	0	100	1	29	5	312	5			3	119	4	18900	25.0	473106	2	3	3		3	3	3.0	1897	1
URS_106	0	2	0	98	1	24	4	279	5			3	69	4	17100	21.5	367720	2	3	3		3	3	3.0	1851	1
URS_107	0	7	78	15	2	17	2	0	5			3	0	5	531000	16.6	8835933	5	5	4		1	1	1.0	57924	5
URS_108	1	25	6	68	1	23	4	0	5			3	0	5	1113300	20.4	22714728	5	5	4		1	1	1.0	353330	5
URS_109	0	0	0	100	1	32	5	13	5			3	55	4	18000	29.4	529039	3	4	3		3	3	3.0	2851	3
URS_110	0	100	0	0	4	16	2	495	4			3	259	3	8100	13.9	112575	1	2	3		3	3	3.0	1924	1
URS_111	13	8	4	75	1	12	1	558	4			2	207	3	29700	12.4	367008	2	3	2		3	3	3.0	12914	4
URS_112	0	96	1	3	4	7	1	699	3			2	184	3	14400	5.7	82748	1	2	2		3	3	3.0	5931	3
URS_113	0	62	0	38	4	6	1	742	3			2	191	3	10800	6.7	72718	1	2	2		3	3	3.0	4103	3
URS_114	0	33	3	64	1	6	1	398	4			2	270	2	8100	6.1	49679	1	2	2		3	3	3.0	3292	3
URS_115	3	20	4	73	1	3	1	383	4			2	271	2	3600	3.2	11375	1	2	2		3	3	3.0	2264	2
URS_116	0	5	95	0	2	9	1	453	4			2	252	3	100800	9.2	931055	3	3	2		3	3	3.0	6483	3
URS_117	0	3	0	97	1	21	3	196	5			2	117	4	14400	20.6	296064	2	3	3		3	3	3.0	2702	2
URS_118	0	29	0	71	1	12	2	113	5			2	171	3	22500	20.2	453553	2	3	2		3	3	3.0	4187	3
URS_119	0	72	0	28	4	13	2	355	5			3	36	5	59400	16.3	967570	3	4	4		3	3	3.0	650	1
URS_120	12	53	13	22	4	12	1	368	4			3	136	4	35100	7.8	275355	2	3	3		3	3	3.0	30657	4
URS_121	0	28	72	0	2	6	1	546	4			2	392	2	7200	5.6	40574	1	2	2		3	3	3.0	1763	1
URS_122	0	43	0	57	1	28	5	649	3			2	99	4	3600	23.5	84469	1	3	2		3	3	3.0	1612	1
URS_123	38	15	41	6	3	12	2	648	3			3	336	2	100800	13.4	1353292	3	3	3		3	3	3.0	8978	4
URS_124	4	40	16	40	1	18	3	0	5			2	0	5	1000800	20.5	20549167	5	5	4		1	1	1.0	601750	5
URS_125	0	0	98	2	2	12	1	511	4			2	160	3	4500	10.1	45344	1	2	2		3	3	3.0	1962	1
URS_126	0	4	2	94	1	11	1	689	3			1	240	3	4500	9.0	40566	1	2	2		3	3	3.0	3179	3
URS_127	0	4	0	96	1	19	3	617	3			2	384	2	72000	12.2	879828	3	3	2		3	3	3.0	1387	1
URS_128	0	4	0	96	1	19	3	672	3			2	312	2	230400	18.5	4270882	4	3	2		3	3	3.0	5953	3
URS_129	4	13	29	54	1	23	4	663	3			2	406	2	130500	22.0	2867065	4	3	3		3	3	3.0	17420	4
URS_130	0	20	0	80	1	21	3	774	3			2	389	2	23400	22.7	531963	3	3	2		3	3	3.0	10425	4
URS_131	0	0	0	100	1	23	4	760	3			2	503	2	9000	23.1	207892	2	2	2		3	3	3.0	730	1
URS_132	0	0	0	100	1	17	2	651	3			2	500	2	4500	15.6	70239	1	2	2		3	3	3.0	831	1
URS_133	0	0	0	100	1	16	2	672	3			2	511	2	9000	13.2	119044	1	2	2		3	3	3.0	1149	1
URS_134	0	0	0	100	1	15	2	714	3			2	533	2	24300	17.1	414388	2	2	2		3	3	3.0	2610	2
URS_135	0	0	0	100	1	21	4	780	3			2	600	2	32400	16.3	528826	2	2	2		3	3	3.0	2110	2
URS_136	0	26	0	74	1	12	1	559	4			2	340	2	5400	10.7	57602	1	2	2		3	3	3.0	2490	2
URS_137	4	48	0	48	3	16	2	1117	2			2	165	3	31500	16.1	508319	2	3	2		3	3	3.0	4809	3
URS_138	9	26	22	43	1	19	3	532	4			2	504	2	135900	19.5	2651647	4	3	3		3	3	3.0	23391	4
URS_139	21	49	30	0	4	15	2	365	4			3	31	5	38700	18.1	699626	3	4	4		3	3	3.0	3183	3
URS_140	26	74	0	0	4	1	1	458	4			3	0	5	2718900	16.2	43939481	5	5	4		3	3	3.0	2661	2
URS_141	0	14	57	28	2	19	3	456	4			3	0	5	823500	15.9	13060218	5	5	4		3	3	3.0	1760	1
URS_142	0	1	3	96	1	20	3	763	3			2	0	5	28800	24.2	697339	3	4	3		3	3	3.0	7982	3
URS_143	0	0	0	100	1	27	5	943	2			2	239	3	2700	21.7	58722	1	2	2		3	3	3.0	861	1
URS_144	6	14	3	77	1	17	2	859	3			2	27	5	551700	14.6	8042326	5	5	3		3	3	3.0	34214	4
URS_145	0	12	31	57	1	24	4	1165	2			2	52	4	136800	21.1	2881023	4	4	3		3	4	3.5	88188	5
URS_146	0	0	0	100	1	26	4	1093	2			2	0	5	317700	21.6	6849032	5	5	3		3	3	3.0	2664	2
URS_147	0	0	0	100	1	24	4	1254	2			2	0	5	133200	20.6	2747638	4	5	3		3	3	3.0	8604	3
URS_148	0	28	5	67	1	33	5	1411	1			2	282	2	7200	21.1	152198	1	2	2		3	3	3.0	3705	3
URS_149	4	24	7	66	1	14	2	1276	2			2	35	5	62100	12.8	796416	3	4	3		3	3	3.0	55353	5
URS_150	0	79	14	7	4	18	3	1165	2			3	83	4	45000	23.9	1075388	3	4	3		3	3	3.0	9612	4
URS_151	0	91	9	0	4	9	1	1459	1			2	135	4	13500	18.2	245188	2	3	2		3	3	3.0	4815	3
URS_152	0	5	0	95	1	25	4	1540	1			2	171	3	33300	22.6	751627	3	3	2		3	3	3.0	6381	3

Table 2
Scoring Matrix, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	% Bare Ground[2]	% Coverage Grasses[2]	% Coverage, Shrubs[2]	% Coverage, Trees[2]	Vegetative Cover Score	Average Slope		Proximity to Landslide		Vegetation Indicative of Seep		FEATURE STABILITY FACTOR	Distance to Drainage (ft)		Drainage Area Above Feature (ft^2)	Mean Watershed Slope	Drainage Flow Factor		DRAINAGE CHARACTERISTICS FACTOR	EROSION POTENTIAL	THg (mg/kg)		Mercury Availability[3]	MERCURY AVAILABILITY FACTOR	Shape Area (ft^2)	
						Value	Score	Value	Score	Value	Score		Value	Score	Value	Value	Value	Score			Value	Score			Value	Score
URS_153	0	0	0	100	1	21	3	1496	1			1	253	3	900	20.0	17968	1	2	2		3	3	3.0	1126	1
URS_154	1	78	14	7	4	25	4	953	2			3	0	5	175500	22.1	3883381	4	5	4		3	3	3.0	15184	4
URS_155	31	48	0	22	4	21	3	897	3			3	0	5	122400	24.4	2985200	4	5	4		3	3	3.0	1229	1
URS_156	5	45	21	28	4	24	4	1062	2			3	5	5	152100	22.1	3361237	4	5	4	159	5	5	5.0	55855	5
URS_157	0	13	66	21	2	20	3	769	3			3	8	5	147600	24.4	3596418	4	5	3		3	3	3.0	2630	2
URS_158	0	0	0	100	1	16	2	1506	1			1	0	5	138600	20.2	2805845	4	5	2		3	3	3.0	1284	1
URS_159	0	0	0	100	1	22	4	1460	1			2	7	5	102600	19.3	1984592	4	5	3		3	3	3.0	854	1
URS_160	0	0	0	100	1	20	3	1359	2			2	0	5	73800	17.5	1289132	3	4	3		3	3	3.0	1982	2
URS_161	0	0	73	27	2	27	5	411	4			3	0	5	469800	23.5	11059175	5	5	4		3	4	3.5	2718	2
URS_162	9	13	30	49	1	13	2	701	3			2	0	5	1102500	18.4	20336046	5	5	3		3	5	4.0	184975	5
URS_163	0	11	0	89	1	0	1	1328	2			1	154	3	10800	18.7	202075	2	3	2		3	3	3.0	321	1
URS_164	0	8	0	92	1	16	2	1460	1			1	198	3	3600	12.0	43211	1	2	2		3	3	3.0	1145	1
URS_165	0	0	0	100	1	20	3	1676	1			1	88	4	18000	22.2	400477	2	3	2		3	3	3.0	2382	2
URS_166	37	46	14	4	4	13	2	154	5			3	298	2	27900	11.4	319031	2	2	3		3	3	3.0	9188	4
URS_167	0	0	22	78	1	17	2	0	5			2	0	5	113400	17.4	1976537	4	5	3		3	3	3.0	3265	3
URS_168	0	26	30	44	1	20	3	0	5			2	0	5	726300	20.0	14545648	5	5	4		1	1	1.0	159408	5
URS_169	1	64	28	7	4	20	3	0	5			4	0	5	146700	23.1	3393667	4	5	4		1	1	1.0	99905	5
URS_170	0	0	100	0	2	18	3	628	3			3	190	3	900	17.4	15687	1	2	2		3	3	3.0	1145	1
URS_171	0	0	100	0	2	29	5	781	3			3	547	2	4500	15.6	70292	1	2	2		3	3	3.0	313	1
URS_172	16	0	73	11	2	15	2	861	3			2	385	2	4500	12.8	57592	1	2	2		3	3	3.0	1671	1
URS_173	0	0	100	0	2	2	1	839	3			2	348	2	1800	7.0	12669	1	2	2		3	3	3.0	883	1
URS_174	0	0	0	100	1	5	1	591	4			2	261	3	8100	7.3	59126	1	2	2		3	3	3.0	1512	1
URS_175	1	32	31	35	1	20	3	0	5			2	0	5	1908900	19.5	37152436	5	5	4		1	1	1.0	322205	5
URS_176	0	18	82	0	2	27	5	0	5			4	13	5	37800	22.4	847185	3	4	4		1	1	1.0	5896	3
URS_177	0	100	0	0	4	25	4	228	5			4	33	5	21600	18.8	406726	2	4	4		3	3	3.0	1684	1
URS_178	47	1	52	0	2	18	3	439	4			3	267	3	90900	18.7	1700486	4	4	3		3	3	3.0	3084	3
URS_179	52	9	39	0	5	15	2	750	3			3	557	2	243900	18.6	4543059	4	3	3		3	3	3.0	6317	3
URS_180	58	38	4	0	5	11	1	736	3			2	550	2	205200	18.6	3810189	4	3	3		3	3	3.0	11054	4
URS_181	20	80	0	0	4	16	2	768	3			3	604	2	146700	21.1	3096145	4	3	3		3	3	3.0	9273	4
URS_182	13	87	0	0	4	12	1	834	3			2	684	2	102600	17.4	1780588	4	3	3		3	3	3.0	4582	3
URS_183	37	58	5	0	4	22	4	359	5			4	557	2	9900	18.4	182376	1	2	3		3	3	3.0	2150	2
URS_184	22	13	65	0	2	16	2	383	4			3	564	2	145800	17.8	2596537	4	3	3		3	3	3.0	2369	2
URS_185	0	10	75	15	2	29	5	218	5			4	451	2	243000	20.1	4872194	4	3	3		3	4	3.5	9919	4
URS_186	5	26	70	0	2	18	3	0	5			3	0	5	405000	21.2	8604325	5	5	4		1	1	1.0	38411	4
URS_187	0	0	0	100	1	19	3	272	5			2	0	5	72000	24.5	1765126	4	5	3		3	3	3.0	1219	1
URS_188	53	0	16	31	5	31	5	242	5			5	227	3	7200	24.5	176105	1	2	3		3	3	3.0	1104	1
URS_189	41	44	0	15	4	21	3	0	5			4	105	4	57600	25.5	1468601	3	4	4		1	1	1.0	16910	4
URS_190	0	0	18	82	1	0	1	480	4			2	0	5	86400	9.8	850176	3	4	3		3	3	3.0	601	1
URS_191	7	39	14	40	1	25	4	0	5			3	0	5	540000	24.7	13324782	5	5	4		1	1	1.0	172106	5
URS_192	0	0	0	100	1	30	5	326	5			3	66	4	13500	28.6	386607	2	3	3		3	3	3.0	1346	1
URS_193	0	0	0	100	1	37	5	420	4			3	67	4	13500	28.9	390718	2	3	3		3	3	3.0	765	1
URS_194	0	27	0	73	1	11	1	570	4			2	29	5	19800	19.1	378722	2	4	2		3	3	3.0	5121	3
URS_195	0	0	68	32	2	27	5	1015	2			3	122	4	2700	27.1	73132	1	3	3		3	3	3.0	510	1
URS_196	0	0	0	100	1	24	4	849	3			2	0	5	51300	17.8	915693	3	4	3		3	3	3.0	1925	1
URS_197	0	56	0	44	4	21	3	1217	2			3	239	3	2700	20.2	54522	1	2	2		3	3	3.0	880	1
URS_198	0	4	0	96	1	34	5	1227	2			2	222	3	3600	33.4	120067	1	2	2		3	3	3.0	623	1
URS_199	0	23	12	65	1	33	5	1174	2			2	152	3	9000	31.9	287469	2	3	2		3	3	3.0	2035	2
URS_200	0	0	0	100	1	30	5	933	2			2	95	4	13500	26.9	363245	2	3	3		3	3	3.0	1367	1
URS_201	0	61	39	0	4	27	5	960	2			3	33	5	3600	27.4	98656	1	3	3		3	3	3.0	881	1
URS_202	0	86	0	14	4	22	4	988	2			3	0	5	67500	27.4	1849161	4	5	4		3	3	3.0	2425	2
URS_203	0	0	0	100	1	42	5	1024	2			2	55	4	3600	38.0	136825	1	3	2		3	3	3.0	1226	1
URS_204	0	19	5	76	1	30	5	315	5			3	72	4	94500	26.2	2474667	4	4	3		3	1	2.0	22324	4
URS_205	0	0	0	100	1	23	4	930	2			2	26	5	19800	28.8	570463	3	4	3		3	3	3.0	2235	2
URS_206	0	9	49	42	2	20	3	771	3			3	0	5	1965600	19.8	38997839	5	5	4		3	3	3.0	2666	2
URS_207	0	7	43	50	1	23	4	427	4			3	209	3	20700	25.1	520516	2	3	3		3	3	3.0	2952	3
URS_208	0	47	24	29	4	25	4	1679	1			3	0	5	63900	25.4	1621937	4	5	3		3	3	3.0	1735	1
URS_209	4	92	4	0	4	6	1	560	4			3	406	2	13500	5.1	68276	1	2	2		3	3	3.0	7867	3
URS_210	0	22	77	1	2	18	3	0	5			3	174	3	364500	17.8	6488311	5	4	4		1	1	1.0	7506	3
URS_211	0	37	41	22	2	26	4	2347	1			2	4	5	41400	23.4	968767	3	4	3		3	3	3.0	8306	3
URS_212	10	24	0	67	1	25	4	2029	1			2	0	5	456300	23.7	10836532	5	5	3		3	3	3.0	15102	4
URS_213	0	0	0	100	1	26	5	2148	1			2	71	4	12600	21.6	272734	2	3	2		3	3	3.0	4285	3
URS_214	0	0	15	85	1	20	3	1856	1			1	0	5	960300	20.0	19198576	5	5	3		3	4	3.5	75408	5
URS_215	0	0	100	0	2	21	3	620	3			3	29	5	24300	21.9	531226	3	4	3		3	3	3.0	1931	1
URS_216	0	100	0	0	4	0	1	379	4			3	276	2	12600	18.7	236004	2	2	2		3	3	3.0	644	1
URS_217	4	28	0	68	1	16	2	0	5			2	21	5	327600	19.4	6343666	4	5	3		1	1	1.0	29394	4
URS_218	0	0	81	19	2	28	5	3587	1			2	19	5	36000	18.6	669165	3	4	3		3	3	3.0	2084	2
URS_270	0	7	35	58	1	25	4	1581	1			2	193	3	16200	30.2	488724	2	3	2	56	4	3	3.5	6947	3
URS_272	0	11	83	6	2	12	1	1098	2			2	698	2	27900	10.3	287750	2	2	2	143	5	3	4.0	16959	4
URS_273	13	25	53	8	2	14	2	588	4			3	460	2	303300	11.7	3542929	4	3	3	60	4	3	3.5	44136	5

Table 2
Scoring Matrix, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	% Bare Ground[2]	% Coverage Grasses[2]	% Coverage, Shrubs[2]	% Coverage, Trees[2]	Vegetative Cover Score	Average Slope		Proximity to Landslide		Vegetation Indicative of Seep		FEATURE STABILITY FACTOR	Distance to Drainage (ft)		Drainage Area Above Feature (ft^2)	Mean Watershed Slope	Drainage Flow Factor		DRAINAGE CHARACTERISTICS FACTOR	EROSION POTENTIAL	THg (mg/kg)		Mercury Availability[3]	MERCURY AVAILABILITY FACTOR	Shape Area (ft^2)	
						Value	Score	Value	Score	Value	Score		Value	Score	Value	Value	Value	Score			Value	Score			Value	Score
URS_274	33	18	46	2	3	16	2	270	5			3	131	4	430200	12.5	5386136	4	4	4	40	4	1	2.5	83742	5
URS_275	6	77	17	0	4	13	2	249	5			3	57	4	168300	16.5	2776255	4	4	4	84	4	5	4.5	30680	4
URS_276	18	61	22	0	4	10	1	394	4	YES	5	3	215	3	324000	17.3	5612075	4	4	3	88	4	5	4.5	23572	4
URS_277	0	100	0	0	4	12	1	401	4	YES	5	3	222	3	343800	17.1	5873651	4	4	3	260	5	5	5.0	28964	4
URS_278	0	94	6	0	4	20	3	182	5			4	36	5	487800	16.8	8198661	5	5	4	88	4	5	4.5	118419	5
WS1	10	82	0	8	4	16	2	13496	1			2	33	5	18000	18.0	324350	2	4	3		1	3	2.0	1963	2
WS10	0	100	0	0	4	16	2	4834	1			2	236	3	5400	17.1	92097	1	2	2		1	3	2.0	1963	1
WS11	0	0	7	93	1	16	2	4947	1			1	0	5	603900	28.6	17289850	5	5	3		3	3	3.0	1963	2
WS12	3	88	9	0	4	24	4	3362	1			3	414	2	9000	16.2	145464	1	2	2		4	1	2.5	1963	2
WS13	0	25	0	75	1	34	5	4648	1			2	80	4	11700	32.4	379417	2	3	2		5	5	5.0	1963	2
WS14	0	14	0	86	1	17	2	4877	1			1	164	3	4500	16.5	74468	1	2	2	420	5	5	5.0	1963	1
WS15	17	35	43	5	3	18	2	2908	1			2	0	5	1166400	20.2	23575395	5	5	3		5	1	3.0	517225	5
WS16	0	100	0	0	4	12	1	2856	1			2	196	3	72000	16.6	1197754	3	3	2		3	3	3.0	1963	2
WS17	0	26	0	74	1	25	4	1121	2			2	255	3	9900	18.6	183669	2	3	2		3	2	2.5	1963	2
WS18	15	35	37	13	3	12	1	1011	2			2	111	4	41400	12.1	501595	2	3	2	17	4	2	3.0	11651	4
WS2	0	0	0	100	1	26	4	12983	1			2	38	5	9900	22.2	219674	2	4	2		5	5	5.0	1963	2
WS20	0	6	1	93	1	18	2	190	5			2	0	5	9221400	20.0	184693088	5	5	3	50	4	1	2.5	124587	5
WS21	0	3	27	71	1	23	4	2009	1			2	0	5	1718100	25.6	43971353	5	5	3	1	1	3	2.0	99625	5
WS23	0	2	1	97	1	20	3	2026	1			1	0	5	14955300	20.7	309572151	5	5	3	30	4	3	3.5	77294	5
WS24	7	13	78	1	2	21	3	888	3			3	0	5	348300	20.2	7037431	5	5	4		5	3	4.0	134163	5
WS24b	1	11	88	0	2	18	3	1254	2			2	0	5	491400	22.3	10975583	5	5	3		3	1	2.0	21415	4
WS24c	6	0	94	0	2	24	4	1224	2			3	46	4	45900	22.8	1046837	3	4	3		3	1	2.0	4209	3
WS24d	22	6	72	0	2	29	5	1116	2			3	101	4	70200	19.8	1393356	3	4	3		3	1	2.0	10546	4
WS24e	28	62	10	0	4	24	4	858	3			4	46	4	37800	23.0	868255	3	4	4		3	1	2.0	3779	3
WS24f	36	23	13	28	5	24	4	717	3			4	130	4	5400	24.6	132973	1	3	3		3	1	2.0	3035	3
WS24g	0	0	0	100	1	20	3	561	4			2	165	3	9000	17.8	160273	1	2	2		3	1	2.0	1895	1
WS24h	0	99	0	1	4	19	3	388	4			4	95	4	5400	18.4	99308	1	3	3		3	1	2.0	2827	2
WS24I	0	100	0	0	4	23	4	878	3			4	44	4	45000	20.0	900470	3	4	4		3	1	2.0	3614	3
WS28	0	0	100	0	2	9	1	580	4	YES	5	3	309	2	186300	8.7	1613532	4	3	3		3	3	3.0	1963	2
WS29	0	22	19	58	1	36	5	0	5			3	152	3	34200	27.0	924188	3	3	3		1	1	1.0	1963	2
WS3	16	62	4	19	4	16	2	12230	1			2	0	5	5562000	19.4	107804954	5	5	3	39	4	5	4.5	115949	5
WS30	8	27	28	38	1	27	5	523	4			3	0	5	16200	26.7	433208	2	4	3		4	1	2.5	4433	3
WS31	0	0	0	100	1	17	2	991	2			2	406	2	14400	22.1	317627	2	2	2		4	1	2.5	10043	4
WS31b	0	9	8	83	1	20	3	1141	2			2	143	3	477000	17.8	8505035	5	4	3		3	3	3.0	133850	5
WS32	10	14	25	51	1	24	4	400	4			3	0	5	234900	24.4	5724455	4	5	3		3	1	2.0	50667	5
WS33	5	46	21	28	4	22	4	539	4			4	49	4	83700	20.1	1686517	4	4	4		1	1	1.0	64035	5
WS34	0	0	0	100	1	29	5	1192	2			2	193	3	12600	21.4	269733	2	3	2		1	1	1.0	1963	2
WS35	0	37	22	41	1	29	5	1422	1			2	84	4	4500	26.4	118727	1	3	2		3	4	3.5	1963	2
WS36	17	66	5	12	4	21	3	2097	1			2	0	5	2143800	22.1	47378161	5	5	3		2	1	1.5	176001	5
WS36b	0	59	1	40	4	25	4	2566	1			3	26	5	91800	25.2	2308941	4	5	3		3	3	3.0	37420	4
WS37	0	0	0	100	1	26	4	1885	1			2	93	4	5400	22.4	120691	1	3	2		3	4	3.5	1963	2
WS38	0	1	53	47	2	12	1	909	2			2	4	5	378900	17.5	6615469	5	5	3		5	5	5.0	1963	2
WS39	0	0	21	79	1	28	5	568	4			3	40	4	66600	25.0	1662088	4	4	3		3	3	3.0	33032	4
WS3b	5	29	7	59	1	24	4	13724	1			2	24	5	358200	20.3	7273519	5	5	3		3	3	3.0	49346	5
WS3c	0	0	0	100	1	23	4	13959	1			2	246	3	31500	21.1	665023	3	3	2		3	3	3.0	4086	3
WS4	0	100	0	0	4	6	1	13504	1			2	445	2	26100	5.7	149305	1	2	2	108	5	1	3.0	6454	3
WS40	0	0	0	100	1	31	5	822	3			2	103	4	24300	29.2	709186	3	4	3	19	4	4	4.0	9355	4
WS43	0	79	7	14	4	24	4	1343	2			3	8	5	18900	13.6	256910	2	4	3	233	5	4	4.5	9229	4
WS46	0	0	100	0	2	20	3	1366	2			2	50	4	6300	21.5	135469	1	3	2		1	1	1.0	1963	2
WS47	0	0	100	0	2	3	1	1079	2			2	828	1	7200	2.6	19028	1	1	1		3	4	3.5	1963	2
WS48	6	6	69	20	2	17	2	0	5			3	0	5	957600	17.1	16400602	5	5	4	379	3	4	3.5	173627	5
WS49	0	65	35	0	4	13	2	716	3			3	492	2	9000	20.5	184813	2	2	2		2	4	3.0	1963	2
WS5	16	25	3	55	1	9	1	12564	1			1	0	5	7407900	18.8	139493456	5	5	2	65	4	3	3.5	63129	5
WS50	5	89	7	0	4	15	2	302	5	YES	5	4	128	4	565200	16.6	9390493	5	5	4		5	5	5.0	150222	5
WS50b	0	37	63	0	2	20	3	511	4			3	59	4	19800	20.5	405427	2	3	3		5	5	5.0	12148	4
WS51	18	76	6	0	4	21	3	1123	2			3	257	3	46800	23.3	1089660	3	3	3		1	1	1.0	1963	2
WS52	4	7	79	10	2	17	2	0	5			3	0	5	3337200	19.9	66317167	5	5	4		3	4	3.5	459095	5
WS53	0	0	0	100	1	35	5	697	3			2	184	3	30600	27.8	849685	3	3	3		3	2	2.5	1963	2
WS53b	0	30	21	49	1	34	5	558	4			3	0	5	125100	29.8	3726522	4	5	3		3	1	2.0	9854	4
WS54	0	9	13	78	1	18	3	1183	2			2	0	5	1092600	25.8	28194492	5	5	3		1	1	1.0	45782	5
WS54b	0	0	0	100	1	32	5	1087	2			2	30	5	12600	33.0	416140	2	4	3		3	3	3.0	2182	2
WS54c	0	0	0	100	1	35	5	1382	2			2	39	5	13500	33.0	445428	2	4	3		3	3	3.0	2937	3
WS54d	0	17	0	83	1	34	5	1358	2			2	32	5	22500	32.3	727362	3	4	3		3	3	3.0	4172	3
WS54e	0	0	0	100	1	33	5	1406	1			2	24	5	30600	23.7	726720	3	4	3		3	3	3.0	5165	3
WS54f	0	0	0	100	1	38	5	1353	2			2	87	4	25200	22.3	563158	3	4	3		3	3	3.0	4358	3
WS54h	0	0	0	100	1	28	5	1127	2			2	215	3	21600	26.1	564208	3	3	3		3	3	3.0	3528	3
WS55	0	0	0	100	1	32	5	950	2			2	0	5	144900	25.6	3703264	4	5	3		3	4	3.5	1963	2
WS57	0	91	2	7	4	8	1	538	4			3	0	5	11576700	23.4	270927598	5	5	4		5	5	5.0	355558	5
WS58	4	6	13	77	1	27	5	923	2			2	0	5	9258300	23.7	219592891	5	5	3	163	5	1	3.0	97519	5

Table 2
Scoring Matrix, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	% Bare Ground[2]	% Coverage Grasses[2]	% Coverage, Shrubs[2]	% Coverage, Trees[2]	Vegetative Cover Score	Average Slope		Proximity to Landslide		Vegetation Indicative of Seep		FEATURE STABILITY FACTOR	Distance to Drainage (ft)		Drainage Area Above Feature (ft^2)	Mean Watershed Slope	Drainage Flow Factor		DRAINAGE CHARACTERISTICS FACTOR	EROSION POTENTIAL	THg (mg/kg)		Mercury Availability[3]	MERCURY AVAILABILITY FACTOR	Shape Area (ft^2)	
						Value	Score	Value	Score	Value	Score		Value	Score	Value	Value	Value	Score			Value	Score			Value	Score
WS59	3	28	13	57	1	21	3	0	5	YES	5	3	0	5	8003700	20.4	163226566	5	5	4	70	4	5	4.5	247170	5
WS6	0	89	6	5	4	24	4	13002	1			3	0	5	76500	19.2	1470644	4	5	3		1	1	1.0	8036	3
WS60	14	46	4	36	4	17	2	0	5			3	0	5	607500	18.5	11212087	5	5	4		2	1	1.5	142480	5
WS61	19	30	37	14	2	18	2	444	4			3	0	5	994500	21.7	21561909	5	5	4		5	1	3.0	363088	5
WS61b	3	31	4	62	1	27	5	477	4			3	0	5	6780600	19.5	132141538	5	5	4		3	1	2.0	8977	4
WS64b	0	15	2	83	1	28	5	593	4			3	826	2	20700	15.3	315753	2	2	2		3	3	3.0	4728	3
WS64c	0	22	59	18	2	14	2	657	3			2	798	2	23400	19.3	452237	2	2	2		3	3	3.0	11917	4
WS64d	0	55	44	0	4	24	4	832	3			4	822	2	27900	23.2	647257	3	3	3		3	3	3.0	21785	4
WS65	50	30	0	20	5	1	1	5300	1			2	0	5	281700	24.9	7018198	5	5	3	45	3	4	3.5	18540	4
WS65b					5	0	1	5482	1			2	204	3	104400	8.2	852363	3	3	2		3	1	2.0	2478	2
WS66	0	34	14	52	1	21	3	1	5			2	18	5	102600	20.1	2067125	4	5	3		3	1	2.0	26383	4
WS67	8	20	57	15	2	17	2	280	5			3	260	3	337500	16.1	5428764	4	4	3		3	3	3.0	217352	5
WS68	1	9	76	14	2	21	3	277	5			3	0	5	432900	18.4	7964146	5	5	4		3	3	3.0	227907	5
WS68b	19	13	62	7	2	11	1	629	3			2	252	3	44100	8.5	376938	2	3	2		3	3	3.0	16096	4
WS68c	11	0	67	22	2	10	1	779	3			2	406	2	60300	7.8	469388	2	2	2		3	3	3.0	9583	4
WS69	9	3	61	27	2	18	2	1072	2			2	96	4	40500	17.0	690218	3	4	3		3	3	3.0	41881	4
WS70	0	3	0	97	1	25	4	1016	2			2	0	5	3900600	20.2	78735839	5	5	3		3	4	3.5	29361	4
WS71	0	0	100	0	2	10	1	767	3			2	715	2	3600	9.4	33946	1	2	2		1	1	1.0	1963	2
WS72	65	35	0	0	5	12	1	13068	1			2	0	5	2700	8.7	23610	1	3	2		3	3	3.0	1963	2
WS7a	0	100	0	0	4	9	1	9212	1			2	41	4	27000	16.4	444036	2	3	2	113	5	5	5.0	1963	2
WS7b	0	100	0	0	4	9	1	9216	1			2	42	4	21600	16.9	364828	2	3	2	183	5	5	5.0	1964	2
WS8	0	0	0	100	1	20	3	8360	1			1	0	5	54000	22.5	1213343	3	4	2		3	3	3.0	1963	2
WS9	23	45	1	31	4	19	3	6472	1			2	88	4	257400	15.9	4087768	4	4	3		5	5	5.0	77956	5

Notes:
[1]Consolidation and % moisture data will be collected during the geologic and hydrologic surveys.
[2]The % coverage of vegetation types are shown in Tables 3 and 4.
[3]Availability is more fully described in Table 5.

Table 3
Vegetation Scoring Matrix, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	Bare Ground Type[1]			% Bare Ground	Grass Type[1]						% Coverage Grasses	Shrub Types[1]								% Coverage, Shrubs	Tree Types[1]							% Coverage, Trees	Vegetative Cover Score
	BG	URBH	SOUT		AR	CAG	SGRA	PGRA	YST	YSTM		BS	BRO	CH	CH_BM	COB	NAWI	PO	SGB		BM	BO	BAY	CLO	EUC	MO	VO		
ES1	0	0	0	0	0	1107	0	0	0	0	57	837	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	4
ES10	5274	0	0	6	0	18504	0	0	0	0	20	0	44595	0	0	5247	0	1206	0	55	0	0	3645	14274	0	639	0	20	2
ES11	0	0	0	0	0	83304	0	0	0	0	99	360	126	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4
ES12	7038	0	0	2	7236	259011	0	0	0	0	78	7884	1350	0	0	57501	0	0	0	20	0	0	162	0	0	0	0	0	4
ES13	0	0	0	0	0	5103	0	0	0	0	89	0	0	0	0	0	0	603	0	11	0	0	0	0	0	0	0	0	4
ES14	864	0	0	2	0	18792	24570	0	0	0	95	675	0	0	0	513	0	0	0	3	0	0	0	0	0	0	0	0	4
ES16	1323	0	0	6	0	4419	0	0	0	0	20	2790	0	0	0	0	0	13365	0	74	0	0	0	0	0	0	0	0	2
ES17																													5
ES18																													5
ES2	234	0	0	12	0	0	0	0	0	1737	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
ES3	85968	0	0	69	0	30870	0	0	7902	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
ES4	0	0	0	0	0	13104	0	0	0	0	98	0	0	0	0	0	0	0	0	0	0	0	0	18	0	234	0	2	4
ES5	8010	0	0	39	0	10134	0	0	0	0	50	0	0	2250	0	0	0	0	0	11	0	0	0	0	0	0	0	0	4
ES6	2997	0	0	20	0	9729	0	0	0	0	63	0	0	0	0	0	0	0	1836	12	0	0	0	792	0	0	0	5	4
ES8	13842	0	0	10	0	37908	0	0	0	0	27	0	0	0	0	8640	0	0	0	6	0	0	234	52065	0	25236	0	56	1
ES9	6147	0	0	3	0	1908	0	0	0	0	1	8721	0	0	0	61722	0	0	104481	76	0	0	0	48609	0	0	0	21	2
URS_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12798	0	31	0	0	0	27837	0	0	0	69	1
URS_101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	0	2961	0	100	1
URS_102	0	0	0	0	0	2889	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	1089	0	360	0	33	4
URS_103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	702	963	0	0	0	100	1
URS_104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	999	0	0	0	100	1
URS_105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	1818	0	0	0	100	1
URS_106	0	0	0	0	0	36	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	36	90	0	1701	0	98	1
URS_107	0	0	0	0	0	4032	270	0	0	0	7	0	0	3987	0	0	0	40923	0	78	0	0	0	5166	0	3555	0	15	2
URS_108	2763	0	0	1	0	89271	0	0	0	0	25	0	0	0	0	0	0	19791	0	6	0	0	54036	120348	0	67113	0	68	1
URS_109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1224	0	1620	0	100	1
URS_110	0	0	0	0	0	1944	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
URS_111	1692	0	0	13	0	999	0	0	0	0	8	567	0	0	0	0	0	9	0	4	0	0	0	6246	0	3465	0	75	1
URS_112	0	0	0	0	0	5706	0	0	0	0	96	36	0	0	0	0	0	0	0	1	0	0	0	198	0	0	0	3	4
URS_113	0	0	0	0	0	2538	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	1323	0	225	0	38	4
URS_114	0	0	0	0	0	1089	0	0	0	0	33	108	0	0	0	0	0	0	0	3	0	0	0	2106	0	0	0	64	1
URS_115	72	0	0	3	0	459	0	0	0	0	20	90	0	0	0	0	0	0	0	4	0	0	0	1647	0	0	0	73	1
URS_116	0	0	0	0	0	342	0	0	0	0	5	0	0	0	0	6192	0	9	0	95	0	0	0	0	0	0	0	0	2
URS_117	0	0	0	0	0	72	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2655	0	0	0	97	1
URS_118	0	0	0	0	0	1197	0	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	2979	0	0	0	71	1
URS_119	0	0	0	0	0	459	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	0	0	180	0	0	0	28	4
URS_120	3645	0	0	12	0	16281	0	0	0	0	53	0	0	0	0	0	0	0	4122	13	0	0	0	4842	0	1755	0	22	4
URS_121	0	0	0	0	0	486	0	0	0	0	28	0	0	0	0	1260	0	0	0	72	0	0	0	0	0	0	0	0	2
URS_122	0	0	0	0	0	693	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	909	0	0	0	57	1
URS_123	3438	0	0	38	0	1305	0	18	0	0	15	0	342	0	0	3168	0	153	0	41	0	0	0	540	0	0	0	6	3
URS_124	19071	3564	0	4	0	240165	0	0	0	0	40	2619	0	0	0	47223	0	45666	0	16	0	0	112608	101862	0	29052	0	40	1
URS_125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1890	0	0	0	98	0	0	0	45	0	0	0	2	2
URS_126	0	0	0	0	0	117	0	0	0	0	4	0	0	0	0	0	0	63	0	2	0	0	0	3042	0	0	0	94	1
URS_127	0	0	0	0	0	54	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1287	0	45	0	96	1
URS_128	0	0	0	0	0	216	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	5742	0	0	0	96	1
URS_129	675	0	0	4	0	2250	0	0	0	0	13	0	0	0	0	5049	0	0	0	29	0	0	1053	3663	0	4797	0	54	1
URS_130	0	0	0	0	0	2088	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	8361	0	0	0	80	1
URS_131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	729	0	0	0	100	1
URS_132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	819	0	0	0	100	1
URS_133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1152	0	0	0	100	1
URS_134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2628	0	0	0	100	1
URS_135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2097	0	0	0	100	1
URS_136	0	0	0	0	0	657	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	1836	0	0	0	74	1
URS_137	180	0	0	4	0	2304	0	0	0	0	48	0	0	0	0	0	0	0	0	0	0	0	684	1629	0	0	0	48	3
URS_138	2133	0	0	9	0	6012	0	0	0	0	26	0	0	0	0	5058	0	0	0	22	0	0	342	1827	0	7965	0	43	1
URS_139	675	0	0	21	0	1557	0	0	0	0	49	0	0	0	0	99	0	855	0	30	0	0	0	0	0	0	0	0	4
URS_140	711	0	0	26	0	1980	0	0	0	0	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
URS_141	0	0	0	0	0	252	0	0	0	0	14	0	0	0	0	1008	0	0	0	57	0	0	18	477	0	0	0	28	2
URS_142	0	0	0	0	0	63	0	0	0	0	1	0	0	0	0	0	0	270	0	3	0	0	3672	3978	0	0	0	96	1
URS_143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	873	0	0	0	100	1
URS_144	1899	0	0	6	0	4788	0	0	0	0	14	0	0	0	0	0	0	1035	0	3	0	0	6903	19692	0	0	0	77	1
URS_145	0	0	0	0	0	10917	0	0	0	0	12	16245	0	0	0	0	0	11088	0	31	0	0	6273	39474	0	4275	0	57	1

Table 3
Vegetation Scoring Matrix, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	Bare Ground Type[1]			% Bare Ground	Grass Type[1]						% Coverage Grasses	Shrub Types[1]								% Coverage, Shrubs	Tree Types[1]							% Coverage, Trees	Vegetative Cover Score
	BG	URBH	SOUT		AR	CAG	SGRA	PGRA	YST	YSTM		BS	BRO	CH	CH_BM	COB	NAWI	PO	SGB		BM	BO	BAY	CLO	EUC	MO	VO		
URS_146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1818	855	0	0	0	100	1
URS_147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4293	4239	0	0	0	100	1
URS_148	0	0	0	0	0	1044	0	0	0	0	28	0	0	0	0	0	0	180	0	5	0	0	0	2466	0	0	0	67	1
URS_149	2079	0	0	4	0	13140	0	0	0	0	24	3375	0	0	0	0	0	459	0	7	0	0	12411	23877	0	0	0	66	1
URS_150	0	0	0	0	0	7524	0	0	0	0	79	0	0	0	0	774	0	549	0	14	0	0	0	711	0	0	0	7	4
URS_151	0	0	0	0	0	4374	0	0	0	0	91	0	0	0	0	0	0	441	0	9	0	0	0	0	0	0	0	0	4
URS_152	0	0	0	0	0	333	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1503	1404	3168	0	0	95	1
URS_153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	306	837	0	0	0	100	1
URS_154	153	0	0	1	0	11871	0	0	0	0	78	0	0	0	0	1377	0	792	0	14	0	0	0	999	0	0	0	7	4
URS_155	369	0	0	31	0	576	0	0	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0	261	0	0	0	22	4
URS_156	2673	0	0	5	0	25398	0	0	0	0	45	0	0	0	0	1215	0	10710	0	21	0	0	4122	10881	0	846	0	28	4
URS_157	0	0	0	0	0	351	0	0	0	0	13	0	0	0	0	0	0	1746	0	66	0	0	0	549	0	0	0	21	2
URS_158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	504	810	0	0	0	100	1
URS_159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	864	0	0	0	100	1
URS_160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	783	1179	0	0	0	100	1
URS_161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1971	0	73	0	0	414	333	0	0	0	27	2
URS_162	16425	0	0	9	0	23238	0	0	0	0	13	6453	11277	17190	0	18351	0	1746	0	30	0	0	14004	62460	0	13824	0	49	1
URS_163	0	0	0	0	0	36	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	306	0	0	0	89	1
URS_164	0	0	0	0	0	99	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	1071	0	0	0	92	1
URS_165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2358	0	0	0	100	1
URS_166	3357	0	0	37	0	4176	0	0	0	0	46	0	0	0	0	0	0	0	1260	14	0	0	0	198	0	153	0	4	4
URS_167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	738	22	0	0	0	2556	0	0	0	78	1
URS_168	0	0	0	0	0	41814	0	0	0	0	26	0	0	0	0	0	0	0	47151	30	0	0	15048	53334	0	2133	0	44	1
URS_169	765	0	0	1	0	63819	0	0	0	0	64	0	0	0	0	0	0	0	28278	28	0	0	2250	4311	0	513	0	7	4
URS_170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	324	0	0	837	100	0	0	0	0	0	0	0	0	2
URS_171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	306	100	0	0	0	0	0	0	0	0	2
URS_172	270	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1224	73	0	0	0	189	0	0	0	11	2
URS_173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	882	100	0	0	0	0	0	0	0	0	2
URS_174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1503	0	0	0	100	1
URS_175	3186	0	0	1	0	104391	0	0	0	0	32	54675	0	0	0	31581	0	15138	0	31	0	0	18468	82098	0	12528	0	35	1
URS_176	0	0	0	0	0	1053	0	0	0	0	18	0	0	0	0	4824	0	0	0	82	0	0	0	0	0	0	0	0	2
URS_177	0	0	0	0	0	1746	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
URS_178	1458	0	0	47	0	36	0	0	0	0	1	0	1557	0	0	54	0	0	0	52	0	0	0	0	0	0	0	0	2
URS_179	3294	0	0	52	0	549	0	0	0	0	9	1584	900	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	5
URS_180	6426	0	0	58	0	4158	0	0	0	0	38	477	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	5
URS_181	1845	0	0	20	0	7461	0	0	0	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
URS_182	585	0	0	13	0	3996	0	0	0	0	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
URS_183	792	0	0	37	0	1251	0	0	0	0	58	117	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	4
URS_184	522	0	0	22	0	315	0	0	0	0	13	198	0	0	0	1368	0	0	0	65	0	0	0	0	0	0	0	0	2
URS_185	0	0	0	0	0	990	0	0	0	0	10	2169	0	0	0	5256	0	0	0	75	0	0	0	1449	0	0	0	15	2
URS_186	1836	0	0	5	0	9846	0	0	0	0	26	24408	0	0	0	0	0	2277	0	70	0	0	0	0	0	0	0	0	2
URS_187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	837	0	378	0	100	1
URS_188	594	0	0	53	0	0	0	0	0	0	0	54	0	0	0	0	0	126	0	16	0	0	0	342	0	0	0	31	5
URS_189	6876	0	0	41	0	7497	0	0	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	855	0	1629	0	15	4
URS_190	0	0	0	0	0	0	0	0	0	0	0	108	0	0	0	0	0	0	0	18	0	0	0	477	0	18	0	82	1
URS_191	11862	0	0	7	0	67410	0	0	0	0	39	9360	0	0	0	0	0	14238	0	14	0	0	11880	22959	0	34425	0	40	1
URS_192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	594	0	675	0	100	1
URS_193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	423	279	0	72	0	100	1
URS_194	0	0	0	0	0	1404	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	153	2124	1494	0	0	0	73	1
URS_195	0	0	0	0	0	0	0	0	0	0	0	360	0	0	0	0	0	0	0	68	0	0	0	171	0	0	0	32	2
URS_196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1926	0	0	0	100	1
URS_197	0	0	0	0	0	486	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	189	0	198	0	44	4
URS_198	0	0	0	0	0	27	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	594	0	0	0	96	1
URS_199	0	0	0	0	0	468	0	0	0	0	23	0	0	0	0	0	0	243	0	12	0	0	45	0	0	1278	0	65	1
URS_200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	1341	0	0	0	100	1
URS_201	0	0	0	0	0	540	0	0	0	0	61	0	0	0	0	0	0	342	0	39	0	0	0	0	0	0	0	0	4
URS_202	0	0	0	0	0	2079	0	0	0	0	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	333	0	14	4
URS_203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1224	0	0	0	100	1
URS_204	0	0	0	0	0	4158	0	0	0	0	19	0	0	702	0	0	0	486	0	5	0	0	0	9081	0	7929	0	76	1
URS_205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1854	396	0	0	0	100	1
URS_206	0	0	0	0	0	243	0	0	0	0	9	468	0	0	0	828	0	0	0	49	0	0	90	693	0	342	0	42	2
URS_207	0	0	0	0	0	216	0	0	0	0	7	0	0	0	0	1260	0	0	0	43	0	0	0	720	0	765	0	50	1
URS_208	0	0	0	0	0	801	0	0	0	0	47	63	0	0	0	0	0	0	351	24	0	0	0	486	0	0	0	29	4
URS_209	297	0	0	4	0	7281	0	0	0	0	92	0	306	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4

Table 3
Vegetation Scoring Matrix, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	Bare Ground Type[1]			% Bare Ground	Grass Type[1]						% Coverage Grasses	Shrub Types[1]								% Coverage, Shrubs	Tree Types[1]							% Coverage, Trees	Vegetative Cover Score
	BG	URBH	SOUT		AR	CAG	SGRA	PGRA	YST	YSTM		BS	BRO	CH	CH_BM	COB	NAWI	PO	SGB		BM	BO	BAY	CLO	EUC	MO	VO		
URS_210	0	0	0	0	0	1620	0	0	0	0	22	0	0	0	0	5733	0	0	0	77	0	0	0	0	0	99	0	1	2
URS_211	0	0	0	0	0	3087	0	0	0	0	37	0	0	0	0	0	0	3195	207	41	0	0	0	1638	0	180	0	22	2
URS_212	1440	0	0	10	0	3600	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	1602	8451	0	0	0	67	1
URS_213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	522	3771	0	0	0	100	1
URS_214	0	0	0	0	0	0	0	0	0	0	0	11394	0	0	0	0	0	0	0	15	0	0	9603	54387	0	0	0	85	1
URS_215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1926	0	100	0	0	0	0	0	0	0	0	2
URS_216	0	0	0	0	0	648	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
URS_217	1134	0	0	4	0	8289	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	11376	5580	0	2988	0	68	1
URS_218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	360	1332	81	0	0	0	405	0	0	0	19	2
URS_270	0	0	0	0	0	504	0	0	0	0	7	0	0	0	0	0	0	0	2430	35	0	0	0	3798	0	216	0	58	1
URS_272	0	0	0	0	0	1935	0	0	0	0	11	4446	0	0	0	9594	0	0	0	83	0	0	0	1008	0	0	0	6	2
URS_273	5886	0	0	13	0	11151	0	0	0	0	25	7326	918	0	0	13365	0	0	1746	53	0	0	0	3591	0	63	0	8	2
URS_274	27909	0	0	33	0	15084	0	0	0	0	18	9495	990	0	0	8388	0	0	19728	46	0	0	0	1683	0	279	0	2	3
URS_275	1800	0	0	6	0	23499	0	0	0	0	77	2124	0	0	0	3240	0	0	0	17	0	0	0	0	0	0	0	0	4
URS_276	4140	0	0	18	4959	9369	0	0	0	0	61	207	4941	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	4
URS_277	0	0	0	0	3024	25920	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
URS_278	0	0	0	0	0	111771	0	0	0	0	94	2349	0	0	0	4266	0	0	0	6	0	0	0	0	0	0	0	0	4
WS1	54	135	0	10	0	1566	0	0	0	0	82	0	0	0	0	0	0	0	0	0	0	0	0	162	0	0	0	8	4
WS10	0	0	0	0	0	1953	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
WS11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	144	7	0	0	0	1818	0	0	0	93	1
WS12	63	0	0	3	0	1728	0	0	0	0	88	0	0	0	0	0	0	171	0	9	0	0	0	0	0	0	0	0	4
WS13	0	0	0	0	0	486	0	0	0	0	25	0	0	0	0	0	0	0	0	0	1476	0	0	0	0	0	0	75	1
WS14	0	0	0	0	0	270	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	1656	0	0	0	86	1
WS15	45891	0	38961	17	0	31788	0	2421	136566	0	35	70767	0	819	11862	92241	0	8721	25065	43	9	0	10341	11565	0	4455	0	5	3
WS16	0	0	0	0	0	0	0	0	1980	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
WS17	0	0	0	0	0	495	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	1440	0	0	0	74	1
WS18	1791	0	0	15	0	4086	0	0	0	0	35	0	0	4311	0	0	0	0	0	37	0	0	0	1476	0	0	0	13	3
WS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	234	1728	0	0	0	100	1
WS20	0	0	0	0	0	7965	0	0	0	0	6	828	0	0	0	0	0	0	0	1	2331	963	52245	46836	0	13320	0	93	1
WS21	0	0	0	0	0	2709	0	0	0	0	3	261	0	0	0	0	0	0	26262	27	0	0	26496	37143	0	6786	0	71	1
WS23	54	0	0	0	0	1557	0	0	0	0	2	1071	0	0	0	0	0	0	0	1	0	0	0	55917	0	18666	0	97	1
WS24	9936	0	0	7	0	17442	0	0	0	0	13	153	0	0	0	0	0	0	104706	78	0	0	0	828	0	981	0	1	2
WS24b	171	0	0	1	0	2340	0	0	0	0	11	0	0	0	0	0	0	0	18837	88	0	0	0	0	0	0	0	0	2
WS24c	243	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4005	94	0	0	0	0	0	0	0	0	2
WS24d	2331	0	0	22	0	594	0	0	0	0	6	0	0	0	0	0	0	0	7614	72	0	0	0	0	0	0	0	0	2
WS24e	1071	0	0	28	0	2322	0	0	0	0	62	0	0	0	0	0	0	378	0	10	0	0	0	0	0	0	0	0	4
WS24f	1071	0	0	36	0	702	0	0	0	0	23	315	0	0	0	0	0	90	0	13	0	0	0	324	0	513	0	28	5
WS24g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	405	0	1467	0	100	1
WS24h	0	0	0	0	0	0	2790	0	0	0	99	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	1	4
WS24l	0	0	0	0	0	3663	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
WS28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1143	828	0	0	100	0	0	0	0	0	0	0	0	2
WS29	0	0	0	0	0	432	0	0	0	0	22	0	0	0	0	0	0	378	0	19	0	0	0	1116	0	18	0	58	1
WS3	18288	0	0	16	0	71460	0	0	0	0	62	0	0	0	0	0	0	4338	0	4	0	2628	4167	12807	0	2295	0	19	4
WS30	333	0	0	8	0	1197	0	0	0	0	27	0	0	0	0	0	0	1233	0	28	0	0	513	1161	0	0	0	38	1
WS31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1656	8379	0	0	0	100	1
WS31b	0	0	0	0	0	11619	0	0	0	0	9	3195	2079	0	0	4230	0	1818	0	8	0	0	3078	85212	0	22536	0	83	1
WS32	4896	0	0	10	0	7146	0	0	0	0	14	0	0	0	0	0	0	12789	0	25	0	0	9369	16506	0	0	0	51	1
WS33	3411	0	0	5	0	29322	0	0	0	0	46	4329	0	0	0	0	0	9162	0	21	0	0	11628	6174	0	0	0	28	4
WS34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1944	0	0	0	100	1
WS35	0	0	0	0	0	720	0	0	0	0	37	0	0	0	0	0	0	423	0	22	0	0	333	477	0	0	0	41	1
WS36	29781	0	0	17	0	116379	0	0	0	0	66	0	0	0	0	0	0	8847	0	5	0	0	7713	11934	0	1377	0	12	4
WS36b	162	0	0	0	0	22023	0	0	0	0	59	0	0	0	0	0	0	504	0	1	0	0	6984	7830	0	0	0	40	4
WS37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1026	936	0	0	0	100	1
WS38	0	0	0	0	0	18	0	0	0	0	1	297	0	720	0	0	0	0	0	53	0	0	0	900	0	0	0	47	2
WS39	0	0	0	0	0	36	0	0	0	0	0	0	0	5526	0	1431	0	0	0	21	0	0	0	20799	0	5220	0	79	1
WS3b	2601	0	0	5	0	14508	0	0	0	0	29	3348	0	0	0	0	0	0	0	7	0	0	2772	25722	0	450	0	59	1
WS3c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4095	0	0	0	100	1
WS4	0	0	0	0	0	6435	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
WS40	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2295	7011	0	0	0	100	1
WS43	0	0	0	0	0	7335	0	0	0	0	79	0	0	0	0	0	0	612	0	7	0	0	243	1053	0	0	0	14	4
WS46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1917	100	0	0	0	0	0	0	0	0	2
WS47	0	0	0	0	0	0	0	0	0	0	0	1557	0	0	0	396	0	0	0	100	0	0	0	0	0	0	0	0	2
WS48	9864	0	0	6	0	9837	0	0	0	0	6	0	0	0	0	119151	0	0	180	69	0	0	0	25848	0	8802	0	20	2

Table 3
Vegetation Scoring Matrix, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS ID	Bare Ground Type[1]			% Bare Ground	Grass Type[1]						% Coverage Grasses	Shrub Types[1]								% Coverage, Shrubs	Tree Types[1]							% Coverage, Trees	Vegetative Cover Score
	BG	URBH	SOUT		AR	CAG	SGRA	PGRA	YST	YSTM		BS	BRO	CH	CH_BM	COB	NAWI	PO	SGB		BM	BO	BAY	CLO	EUC	MO	VO		
WS49	0	0	0	0	0	1260	0	0	0	0	65	675	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	4
WS5	10026	0	0	16	0	14499	9	0	1539	0	25	828	0	0	0	0	0	1269	0	3	0	0	5184	26316	0	3537	0	55	1
WS50	7083	0	0	5	7983	125361	0	0	0	0	89	2520	2205	0	0	5247	0	0	0	7	0	0	0	0	0	0	0	0	4
WS50b	0	0	0	0	0	4455	0	0	0	0	37	0	0	0	0	7614	0	0	0	63	0	0	0	0	0	0	0	0	2
WS51	342	0	0	18	0	1494	0	0	0	0	76	117	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	4
WS52	18837	0	0	4	0	31707	0	0	0	0	7	7029	35559	8757	0	303822	0	7164	0	79	0	0	1323	27630	0	17271	0	10	2
WS53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1656	0	279	0	100	1
WS53b	0	0	0	0	0	2970	0	0	0	0	30	0	0	1692	0	0	0	333	0	21	0	0	0	0	0	4824	0	49	1
WS54	0	0	0	0	0	4212	0	0	0	0	9	5985	0	0	0	0	0	0	0	13	0	0	30465	2997	0	2106	0	78	1
WS54b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2169	0	0	0	0	100	1
WS54c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2898	0	0	0	0	100	1
WS54d	0	0	0	0	0	702	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	2493	990	0	0	0	83	1
WS54e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3618	1521	0	0	0	100	1
WS54f	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	4185	0	0	0	100	1
WS54h	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	522	3069	0	0	0	100	1
WS55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	378	0	1575	0	100	1
WS57	729	117	0	0	0	16137	0	0	307881	0	91	6282	0	0	0	0	0	198	738	2	0	720	8127	12816	0	1701	0	7	4
WS58	3834	0	0	4	0	5751	0	0	0	0	6	0	0	0	0	0	0	864	11871	13	0	24984	39204	10548	0	468	0	77	1
WS59	6579	0	0	3	0	49635	0	0	18549	0	28	23508	0	0	0	3555	0	4437	0	13	0	423	46476	74709	0	19485	0	57	1
WS6	0	0	0	0	0	7164	0	0	0	0	89	0	0	0	0	0	0	459	0	6	0	0	0	432	0	0	0	5	4
WS60	9360	10899	0	14	0	65286	0	0	0	0	46	0	0	0	0	0	0	5841	0	4	0	0	32436	17838	0	882	0	36	4
WS61	69624	0	0	19	0	94986	0	13626	0	0	30	927	115929	0	0	0	0	18153	0	37	0	0	16272	11826	0	21735	0	14	2
WS61b	297	0	0	3	0	2799	0	0	0	0	31	315	0	0	0	0	0	0	0	4	0	0	4698	0	0	810	0	62	1
WS64b	0	0	0	0	0	720	0	0	0	0	15	0	72	0	0	0	0	0	0	2	0	0	0	3870	0	0	0	83	1
WS64c	0	0	0	0	0	2682	0	0	0	0	22	7074	0	0	0	0	0	0	0	59	0	0	0	2187	0	0	0	18	2
WS64d	0	0	0	0	0	12078	0	0	0	0	55	90	4896	0	0	4689	0	0	0	44	0	0	0	63	0	0	0	0	4
WS65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1278	0	0	0	100	1
WS65b	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0		5
WS66	0	0	0	0	0	9063	0	0	0	0	34	0	0	0	0	0	0	3672	0	14	0	0	9405	4257	0	0	0	52	1
WS67	18117	0	0	8	0	43380	0	0	0	0	20	19719	27567	0	0	67500	0	0	8496	57	0	0	0	32391	0	279	0	15	2
WS68	1332	0	0	1	0	20277	0	0	0	0	9	0	0	0	0	73062	0	720	100233	76	0	0	0	31032	0	1188	0	14	2
WS68b	3024	0	0	19	0	2070	0	0	0	0	13	0	0	0	0	954	0	0	9009	62	0	0	0	1053	0	0	0	7	2
WS68c	1044	0	0	11	0	0	0	0	0	0	0	0	0	0	0	1566	0	0	4878	67	0	0	0	2124	0	0	0	22	2
WS69	3753	0	0	9	0	1278	0	0	0	0	3	1107	0	23751	0	0	0	882	0	61	0	0	18	11061	0	117	0	27	2
WS70	0	0	0	0	0	945	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	12060	13680	0	2673	0	97	1
WS71	0	0	0	0	0	0	0	0	0	0	0	0	1962	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	2
WS72	1260	0	0	65	0	693	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
WS7a	0	0	0	0	0	0	0	0	1980	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
WS7b	0	0	0	0	0	0	0	0	1917	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
WS8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1962	0	0	0	100	1
WS9	18198	0	0	23	0	30555	0	0	0	4203	45	0	0	0	0	0	0	891	0	1	0	5391	7461	2007	0	8118	1233	31	4

Notes:
[1]Abbreviations are defined in Table 4.

Table 4
Vegetation and Coverage Type Key, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

Abbreviation	Description	Coverage Type
BG	Bare ground	BARE
SOut	Serpentine outcrop	BARE
UrbH	Urban/Park hardscape	BARE
Ar	Arundo	GRASS
CAG	California annual grassland	GRASS
SGra	Serpentine grassland	GRASS
UrbG	Urban/Park grasses	GRASS
Vin	Vinca	GRASS
Yst	Yellow star thistle	GRASS
YstM	Yst/mustard mix	GRASS
Pgra	Pampas grass	GRASS
BS	Black sage	SHRUB
BlkM	Black mustard	SHRUB
Bro	Broom	SHRUB
Ch	Chamise	SHRUB
Ch-BM	Chamise-bigberry manzanita	SHRUB
CoB	Coyote brush	SHRUB
NaWi	Narrowleaf willow	SHRUB
PO	Poison oak	SHRUB
RA	Red alder	SHRUB
Sgb	California sagebrush	SHRUB
BM	Bigberry manzanita	TREE
BO	Blue oak	TREE
Bay	California bay	TREE
CLO	Coast live oak	TREE
Euc	Eucalyptus	TREE
MO	Mixed oak	TREE
Syc	California sycamore	TREE
TH	Tree of Heaven	TREE
VO	Valley oak	TREE

Table 5
Mercury Availability Worksheet, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS_ID	Site Description[1]	Waste Type[2]	Availability Score[3]	Source[4]
ES1	Drainage eroding western margin of Mine Hill Furnace Calcines Dump	Calcines	5	Photo Review, URS (2010)
ES10	Erosional Scar, Unknown Material Type	Unknown Material Type	3	Photo Review
ES11	Erosional Scar, Unknown Material Type	Unknown Material Type	3	Photo Review
ES12	Erosional Scar, Fill/Slope	Fill/Slope	1	Photo Review, URS (2010)
ES13	Erosional Scar, Soil	Soil	1	Photo Review, URS (2010)
ES14	Erosional Scar, Soil	Soil	1	Photo Review, URS (2010)
ES16	Erosional Scar, Soil	Soil	1	Photo Review, URS (2010)
ES17	Erosional Scar, Serpentine	Serpentine	1	Photo Review, URS (2010)
ES18	Erosional Scar, Overburden Soil	Overburden Soil	4	Photo Review, URS (2010)
ES2	Erosional Scar Below Calcines Paved Road, Soil	Soil	1	Photo Review, URS (2010)
ES3	Erosional Scar, Soil	Soil	1	Photo Review, URS (2010)
ES4	Erosional Scar, Soil	Soil	1	Photo Review, URS (2010)
ES5	Erosional Scar, Overburden Soil	Overburden Soil	4	Photo Review, URS (2010)
ES6	Erosional Scar, Overburden Soil	Overburden Soil	4	Photo Review, URS (2010)
ES8	Erosional Scar, Overburden Soil	Overburden Soil	4	Photo Review, URS (2010)
ES9	Erosional Scar, Overburden Soil	Overburden Soil	4	Photo Review, URS (2010)
URS_100	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), Aerial photo review
URS_101	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_102	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_103	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_104	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_105	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_106	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_107	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), Aerial photo review
URS_108	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), Aerial photo review
URS_109	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_110	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_111	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_112	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_113	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_114	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_115	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_116	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_117	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_118	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_119	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_120	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_121	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_122	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_123	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_124	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), Aerial photo review
URS_125	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_126	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_127	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_128	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_129	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_130	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_131	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_132	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_133	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_134	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_135	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_136	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)

Table 5
Mercury Availability Worksheet, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS_ID	Site Description[1]	Waste Type[2]	Availability Score[3]	Source[4]
URS_137	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_138	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_139	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_140	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_141	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_142	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_143	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_144	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_145	Scarp/dump/waste, Overburden Soil	Overburden Soil	4	Bailey and Everhart Geologic Map (South), URS (2010)
URS_146	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_147	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_148	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_149	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_150	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_151	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_152	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_153	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_154	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_155	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_156	Scarp/dump/waste, Overburden Soil, Calcines	Overburden Soil, Calcines	5	Bailey and Everhart Geologic Map (South), URS (2010)
URS_157	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_158	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_159	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_160	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_161	Scarp/dump/waste, Overburden Soil	Overburden Soil	4	Bailey and Everhart Geologic Map (South), URS (2010)
URS_162	Scarp/dump/waste, Calcines, Soil, Overburden Soil	Calcines, Soil, Overburden Soil	5	Bailey and Everhart Geologic Map (South), URS (2010)
URS_163	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_164	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_165	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_166	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_167	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_168	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
URS_169	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
URS_170	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_171	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_172	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_173	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_174	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_175	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
URS_176	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
URS_177	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_178	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_179	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_180	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_181	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_182	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_183	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_184	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_185	Scarp/dump/waste, Overburden Soil	Overburden Soil	4	Bailey and Everhart Geologic Map (South), URS (2010)
URS_186	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South)
URS_187	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_188	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_189	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South), Aerial photo review, URS (2010)

Table 5
Mercury Availability Worksheet, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS_ID	Site Description[1]	Waste Type[2]	Availability Score[3]	Source[4]
URS_190	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_191	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South)
URS_192	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_193	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_194	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_195	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_196	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_197	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_198	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_199	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_200	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_201	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_202	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_203	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_204	Scarp/dump/waste, Soil	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
URS_205	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_206	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_207	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_208	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_209	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_210	Landslide, Unknown Material Type	Unknown Material Type	1	Bailey and Everhart Geologic Map (South)
URS_211	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_212	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_213	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_214	Scarp/dump/waste, Overburden	Overburden	4	Bailey and Everhart Geologic Map (South), URS (2010)
URS_215	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_216	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_217	Landslide, Soil	Soil	1	Bailey and Everhart Geologic Map (South)
URS_218	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
URS_270	Hacienda Area, Unknown Material Type	Unknown Material Type	3	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
URS_272	Colluvium Along Road South of San Cristobal Tunnel	Unknown Material Type	3	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
URS_273	Unnamed Road West of San Francisco Opencut	Unknown Material Type	3	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
URS_274	Soil	Soil	1	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
URS_275	Mine Hill Furnace Calcines Pile	Calcines	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
URS_276	Mine Hill Furnace Calcines Pile	Calcines	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
URS_277	Mine Hill Rotary Furnace Dust	Calcines	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
URS_278	Mine Hill Furnace Calcines Pile	Calcines	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS1	Ground disturbed by unproductive cuts and trenches in 1920s	Unknown Material Type	3	Cox (1985)
WS10	Colluvial Soil along Haul Road, Hillside North End of Randol Trail	Unknown Material Type	3	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS11	Enriquetta Mine Dumps	Unknown Material Type	3	Cox (1985)
WS12	Prospect Shaft No.3 waste rock dump	Waste Rock	1	Cox (1985)
WS13	Enriquitta Mine Retort Site	Calcines	5	Cox (1985)
WS14	Enriquita Mine Retort Calcines Pile	Calcines	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3, URS (2010)
WS15	Providencia Opencut, with waste piles downslope	Serpentine	1	Photo Review, URS (2010)
WS16	Yellow Kid Jr. Dumps	Unknown Material Type	3	Cox (1985)
WS17	Area of Bulldozer Trenches adjacent to Mine Hill	Waste Rock, Soil	2	Cox (1985)
WS18	Area of Contaminated Colluvium Along Road-Side, Mine Hill Trail Near North America Tunnel	Colluvium	2	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS2	Senator Mine Furnace Site	Calcines	5	Cox (1985)
WS20	Contaminated Creek, Map of Area of IS-5 Unnamed Creek near Mockingbird Hil	Soil	1	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3, URS (2010)
WS21	Contaminated Creek, Unnamed Creek North of Cape Horn Pass	Unknown Material Type	3	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS23	Contaminated Creek, Los Capitancillos Creek to Guadalupe Reservoir	Unknown Material Type	3	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3

Table 5
Mercury Availability Worksheet, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS_ID	Site Description[1]	Waste Type[2]	Availability Score[3]	Source[4]
WS24	America Mine Dump; Main American Mine Dump Site	Waste Rock, High Grade Ore	3	Cox (1985), URS (2010)
WS24b	American Mine Satalite Portal Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS24c	American Mine Satalite Portal Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS24d	American Mine Satalite Portal Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS24e	American Mine Satalite Portal Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS24f	American Mine Satalite Portal Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS24g	American Mine Satalite Portal Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS24h	American Mine Satalite Portal Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS24I	American Mine Satalite Portal Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS28	San Pedro OpenCut Dump	Unknown Material Type	3	Cox (1985)
WS29	Catharine Opencut	Rock	1	Cox (1985)
WS3	Senator Mine Calcines Dump	Calcines	5	Cox (1985)
WS30	April Tunnel Dump	Waste Rock	1	Cox (1985)
WS31	Almaden Shaft-San Pedro Opencut; 10 acre area including San Pedro Opencut	Soil	1	Cox (1985), URS (2010)
WS31b	Dump Site East of Almaden Shaft	Soil, Rock, Overburden Soil	3	Bailey and Everhart Geologic Map (South), URS (2010)
WS32	Victoria Shaft Dump	Coarse Rock	1	Cox (1985), URS (2010)
WS33	Randol Shaft Dump	Rock, Soil	1	Cox (1985), URS (2010)
WS34	Santa Rita Shaft Dump, and Juan Vega Opencuts	Clayey Waste	1	Cox (1985)
WS35	Roosevelt Tunnel Dump/Carson Tunnel Dump	Overburden	4	Cox (1985)
WS36	Day Tunnel Dump	Coarse Rock	1	Cox (1985), URS (2010)
WS36b	Satellite Day Tunnel Dump	Soil, Overburden Soil	3	Bailey and Everhart Geologic Map (South), URS (2010)
WS37	Great Eastern Tunnel Dump	Coarse Rock, High Grade Ore	4	Cox (1985)
WS38	Calcines Dump adjacent to dismantled retort from 1950s	Calcines	5	Cox (1985), URS (2010)
WS39	Scarp/dump/waste, Soil, Overburden, Ferric Slag	Soil, Overburden, Ferric Slag	3	Cox (1985), URS (2010)
WS3b	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (North)
WS3c	Scarp/dump/waste, Unknown Material Type	Unknown Material Type	3	Bailey and Everhart Geologic Map (North)
WS4	Senator Mine Shaft Dumps, Senator Mine Area	Mixed Dirt And Rock	1	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS40	Contaminated Colluvium Adjacent to Haul Road, South Saint George Area	Overburden Soil	4	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS43	Contaminated Colluvium Adjacent to Road, East Side of Juan Vega Opencut Area	Overburden Soil	4	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS46	America Mine Satellite Tunnel Dump	Coarse Rock	1	Cox (1985)
WS47	San Francisco Opencut	Overburden	4	Cox (1985)
WS48	Delgade Tunnel Dump and Opencut	Overburden	4	Cox (1985), URS (2010)
WS49	Rotory Furnace Ore Stockpile	Low Grade Ore, Dirt	4	Cox (1985)
WS5	Los Capitancillos Creek, Creek at North End of Park near McAbee Road	Unknown Material Type	3	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS50	Pre-Remediation config of Mine Hill Rotory Furnace Calcines Dump (Mine Hill Rotory Calcines Pile)	Calcines	5	Cox (1985)
WS50b	Satellite Mine Hill Rotory Furnace Calcines Dump	Calcines	5	Bailey and Everhart Geologic Map (South)
WS51	Encline Railroad Dump	Rock	1	Cox (1985)
WS52	China or Main Tunnel Dump, Harry Shafts and Tunnel Dump	Waste Rock, Medium Grade Ore, Overburden, Minor Ore, Rock, Soil, Co	4	Bailey and Everhart Geologic Map (South), URS (2010)
WS53	Opencut below PG&E Transmission Lines, south side of Deep Gulch and Northwest of Hidalgo Opencut	Boulders, Clay Soils, Dirt, Cinnabar	2	Cox (1985), URS (2010)
WS53b	Open Cut Dump	Soil	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS54	Deep Gulch Tunnel Dump	Rock	1	Bailey and Everhart Geologic Map (South)
WS54b	Satellite Deep Gulch Tunnel Dump	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS54c	Satellite Deep Gulch Tunnel Dump	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS54d	Satellite Deep Gulch Tunnel Dump	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS54e	Satellite Deep Gulch Tunnel Dump	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS54f	Satellite Deep Gulch Tunnel Dump	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS54h	Satellite Deep Gulch Tunnel Dump	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS55	Opencut below PG&E Transmission Lines, South Side of Deep Gulch	Overburden, Minor Cinnabar	4	Cox (1985)
WS57	Hacienda Calcines Dump	Calcines	5	Cox (1985)

Table 5
Mercury Availability Worksheet, Almaden Quicksilver County Park
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

URS_ID	Site Description[1]	Waste Type[2]	Availability Score[3]	Source[4]
WS58	Contaminated Creek, Deep Gulch Creek	Soil	1	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS59	Contaminated Creek, South of Los Capitancillos Creek	Calcines	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS6	Senator Mine, 260-foot tunnel entrance dump	Dirty Rock	1	Bailey and Everhart Geologic Map (North)
WS60	Santa Isabel Shaft Dump	Coarse Rock	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS61	Buena Vista Shaft, and Randol Dumps	Rock	1	Bailey and Everhart Geologic Map (South), URS (2010)
WS61b	Satellite Buena Vista Shaft Dump	Rock	1	Bailey and Everhart Geologic Map (South)
WS64b	Satellite Dump to Mine Hill Opencuts	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS64c	Satellite Dump to Mine Hill Opencuts	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS64d	Satellite Dump to Mine Hill Opencuts	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS65	Guadalupe Reservoir shoreline overburden	Overburden	4	Photo Review (Google Earth), URS (2010)
WS65b	Soil	Soil	1	Photo Review (Google Earth), URS (2010)
WS66	April Tunnel Dump	Coarse Rock	1	Bailey and Everhart Geologic Map (South)
WS67	Dump downslope of Mine Hill Opencut	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS68	Dump West of Mine Hill Opencut	Overburden	3	Bailey and Everhart Geologic Map (South), URS (2010)
WS68b	Scarp/dump/waste, Overburden	Overburden	3	Bailey and Everhart Geologic Map (South), URS (2010)
WS68c	Scarp/dump/waste, Overburden	Overburden	3	Bailey and Everhart Geologic Map (South), URS (2010)
WS69	Waste Site East of Harry Tunnel	Unknown Material Type	3	Bailey and Everhart Geologic Map (South)
WS70	Waste Site SE of Harry Tunnel	Overburden	4	Bailey and Everhart Geologic Map (South), URS (2010)
WS71	Mine Hill OpenCuts	Soil, Rock	1	Cox (1985)
WS72	Senator Mine Site	Unknown Material Type	3	Photo review
WS7a	San Mateo Calcines Pile	Unknown Material Type	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS7b	San Mateo Calcines Pile	Calcines	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3
WS8	San Mateo Mine OpenCuts	Unknown Material Type	3	Cox (1985)
WS9	Calcine Paved Road at North End of Gaudalupe Reservior	Calcines	5	Almaden Quicksilver Mercury Assessment Vol 1 Phs 3, URS (2010)

Notes:
[1]Site Descriptions were compiled from Cox (1985) and Bailey and Everhart (1964), and updated with field information where available. Where specific names weren't available, general descriptions were included (e.g., soil, scarp/dump/waste).
[2]Waste types as described by Cox (1985) and as observed in the field.
[3]Refer to the main text for information on Availability Scoring
[4]Refer to document for complete bibliographic information.

Table 6
Mercury Sampling Results
Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation
Santa Clara County Parks Department

Sample ID	Material Type	Total Solids (%)	THg	THg_{HCl}	$\%THg_{HCl}$	TOC (%)
WS52 CALCINE ROAD EROSION	Calcine Pavement	86	233	0.004	0.002	1.1
RANDOL TRAIL CALCINES		87	33	0.019	0.06	0.5
APRIL TRAIL A		85	165	0.017	0.01	1.1
APRIL TRAIL B	Calcine/Soil Mix	77	78	0.002	0.003	1.7
URS-156		84	159	0.003	0.002	1.2
ES1 CALCINES	Calcines	84	22	0.005	0.02	0.7
UPPER JACQUES GULCH		81	45	0.016	0.04	0.9
WS48 DOWNHILL TERMINUS	Overburden	89	379	0.014	0.004	0.3
GUADALUPE RES. SHORELINE		79	42	0.001	0.002	1.5
ES9 LOWER MARGIN		88	26	0.011	0.04	0.3
ES6		86	10	0.017	0.17	0.6

Notes:

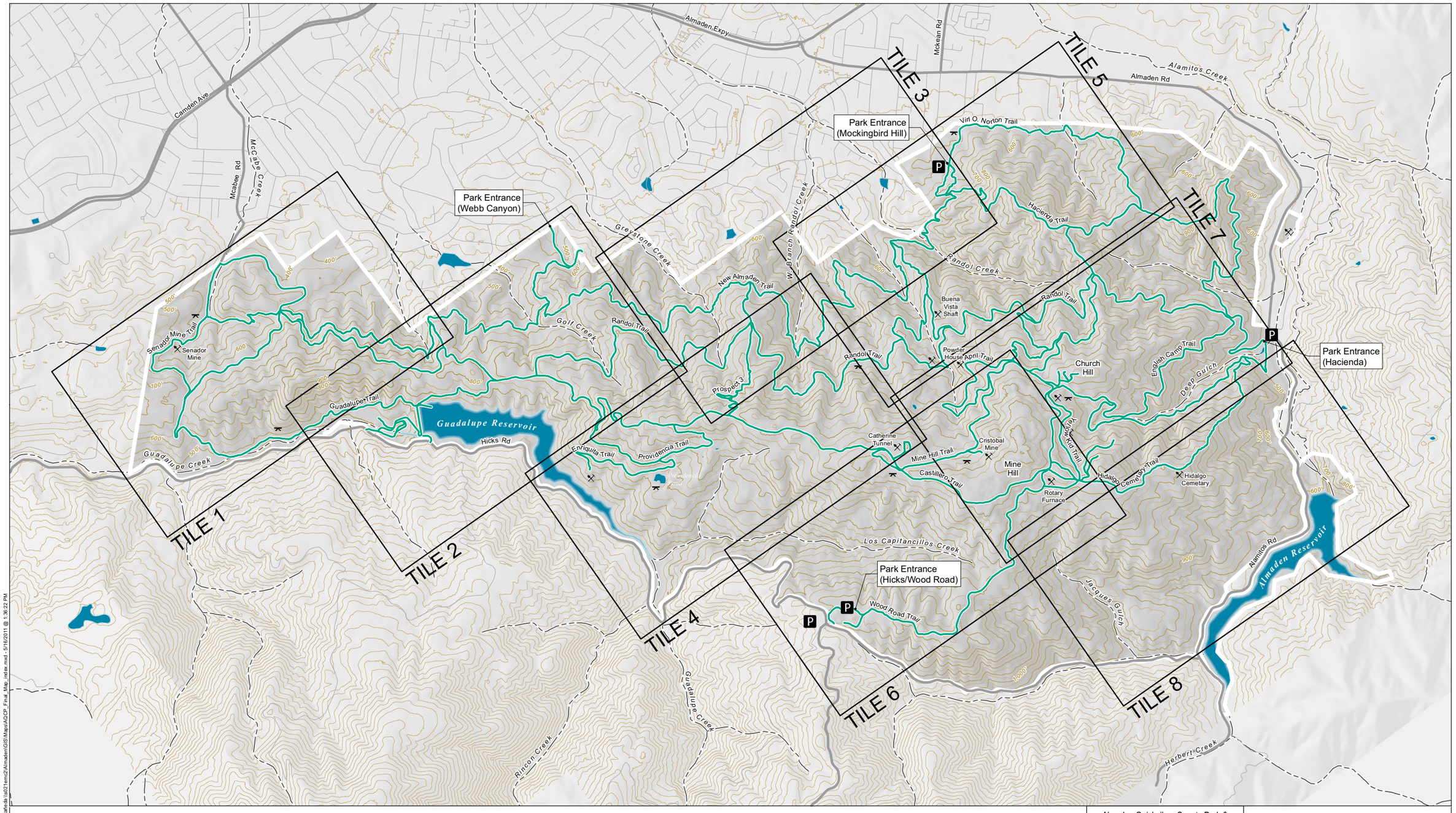
THg = Total mercury

THg_{HCl} = 0.5%-HCl Extractable THg

TOC = Total organic carbon

Mercury results are reported in mg/kg (dry weight basis).

FIGURES



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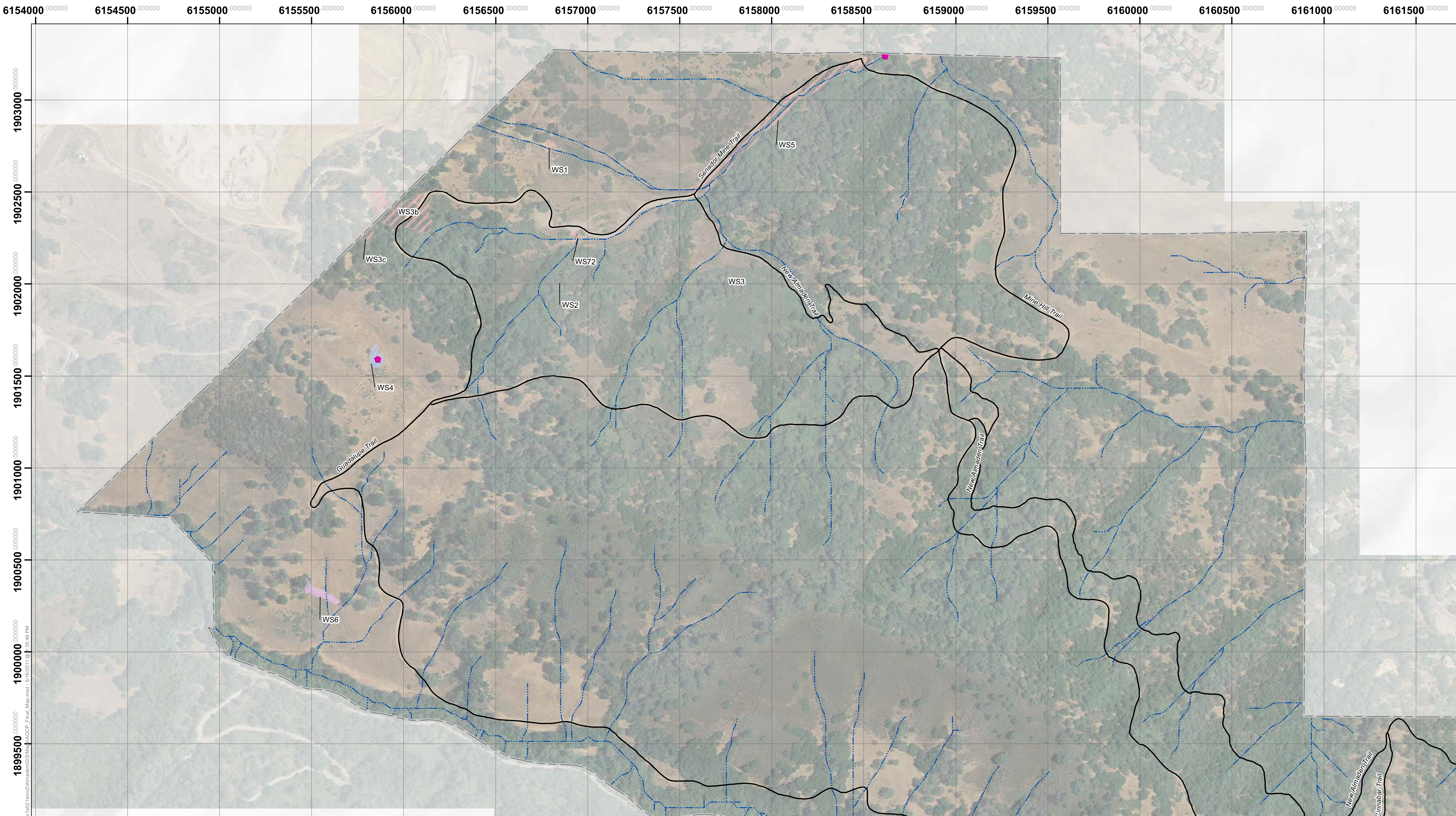
Almaden Quicksilver County Park &
Santa Teresa County Park
Mine Material Evaluation

URS

Figure 1 - Tile index

Feature mapping
Almaden Quicksilver County Park



Almaden/Quicksilver boundary
Trail/Service road
Erosional rill
Landslide mass/Evacuated scarp boundary
Stream
Calcine
Calcine pavement
Overburden soil
Rock
Soil
Unknown
Fill/Slope
Landslide (arrows show direction of movement)
Open cut-slope
Seep
Waste derived surficial slope debris
Erosional scarp
Open cut-slope
Slope
Erosion location (Exponent, 2007)
THg concentration data (Dames & Moore, 1989)

N

0 250 500
FEET

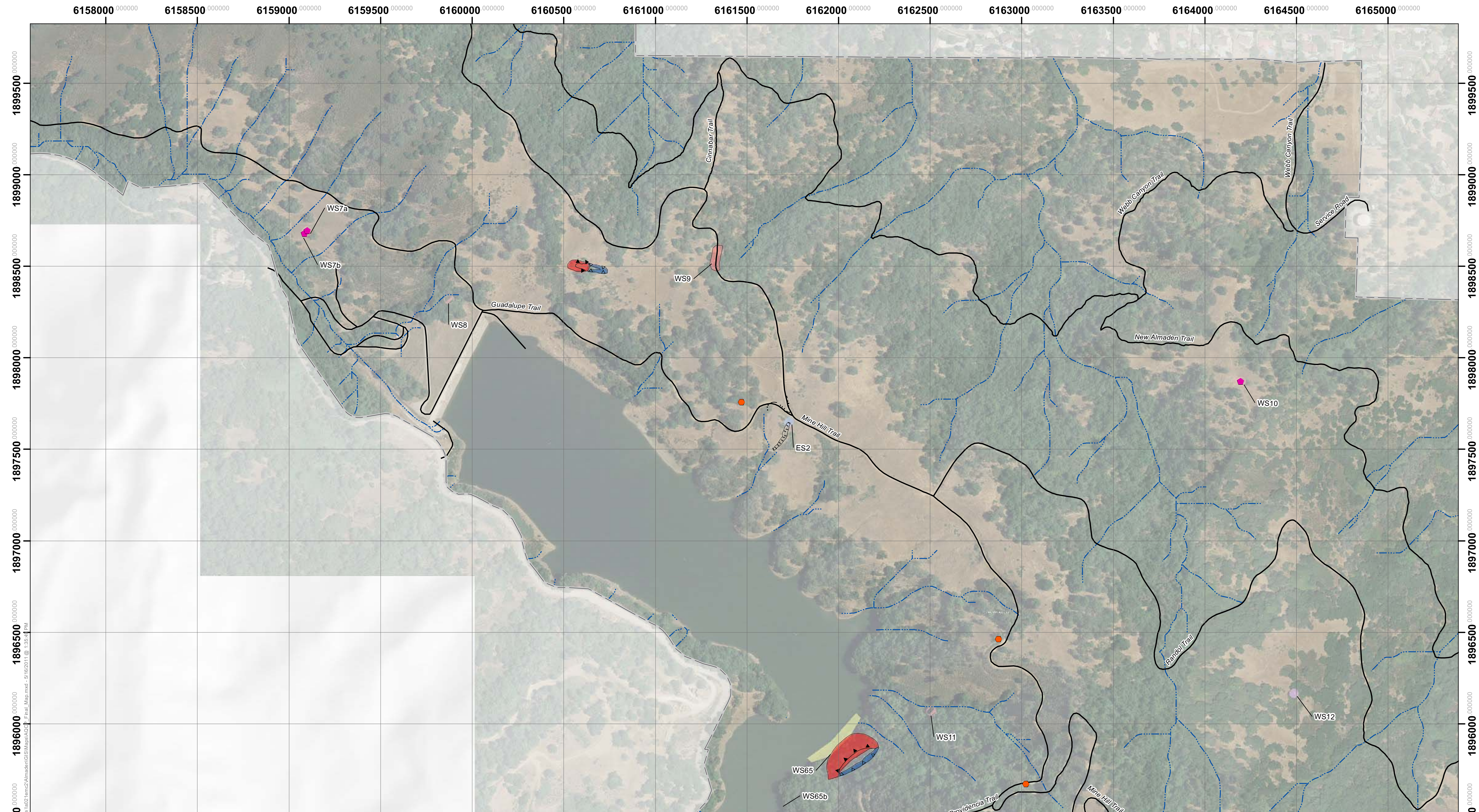
Imagery source: DigitalGlobe ImageConnect Service, 2/12/2010
Base map source: Santa Clara Valley Water District LiDAR

Almaden Quicksilver County Park & Santa Teresa County Park Mine Material Evaluation

URS

Figure 1 - Tile 1

Feature mapping, Almaden Quicksilver County Park



Almaden/Quicksilver boundary
Trail/Service road
Erosional rill
Landslide mass/Evacuated scarp boundary
Stream
Calcine
Calcine pavement
Overburden soil
Rock
Soil
Unknown
Fill/Slope
Landslide (arrows show direction of movement)
Open cut-slope
Seep
Waste derived surficial slope debris
Erosional scar
Open cut-slope
Slope
Erosion location (Exponent, 2007)
THg concentration data (Dames & Moore, 1989)

N
0 250 500
FEET

Imagery source: DigitalGlobe ImageConnect Service, 2/12/2010
Base map source: Santa Clara Valley Water District LiDAR

Almaden Quicksilver County Park & Santa Teresa County Park Mine Material Evaluation

URS

Figure 1 - Tile 2

Feature mapping, Almaden Quicksilver County Park

6165000.000000 6165500.000000 6166000.000000 6166500.000000 6167000.000000 6167500.000000 6168000.000000 6168500.000000 6169000.000000 6169500.000000 6170000.000000 6170500.000000 6171000.000000 6171500.000000 6172000.000000 6172500.000000

1898000.000000 1897500.000000 1897000.000000 1896500.000000 1896000.000000 1895500.000000 1895000.000000 1894500.000000

Prospect 3
Randol Trail
Randolh Trail
Prospect 3
Mine Hill Trail
New Almaden Trail
WS20
Buena Vista Trail
New Almaden Trail
WS21
Vivi O. Norton Trail
Hacienda Trail
New Almaden Trail
Hacienda Trail

- Almaden/Quicksilver boundary
- Trail/Service road
- Erosional rill
- Landslide mass/Evacuated scarp boundary
- Stream
- Calcine
- Calcine pavement
- Overburden soil
- Rock
- Soil
- Unknown
- Fill/Slope
- Landslide (arrows show direction of movement)
- Open cut-slope
- Seep
- Waste derived surficial slope debris
- Erosional scar
- Open cut-slope
- Slope
- Erosion location (Exponent, 2007)
- THg concentration data (Dames & Moore, 1989)

N

0 250 500

FEET

Imagery source: DigitalGlobe ImageConnect Service, 2/12/2010
Base map source: Santa Clara Valley Water District LiDAR

Almaden Quicksilver County Park &
Santa Teresa County Park
Mine Material Evaluation

URS

Figure 1 - Tile 3

Feature mapping,
Almaden Quicksilver County Park

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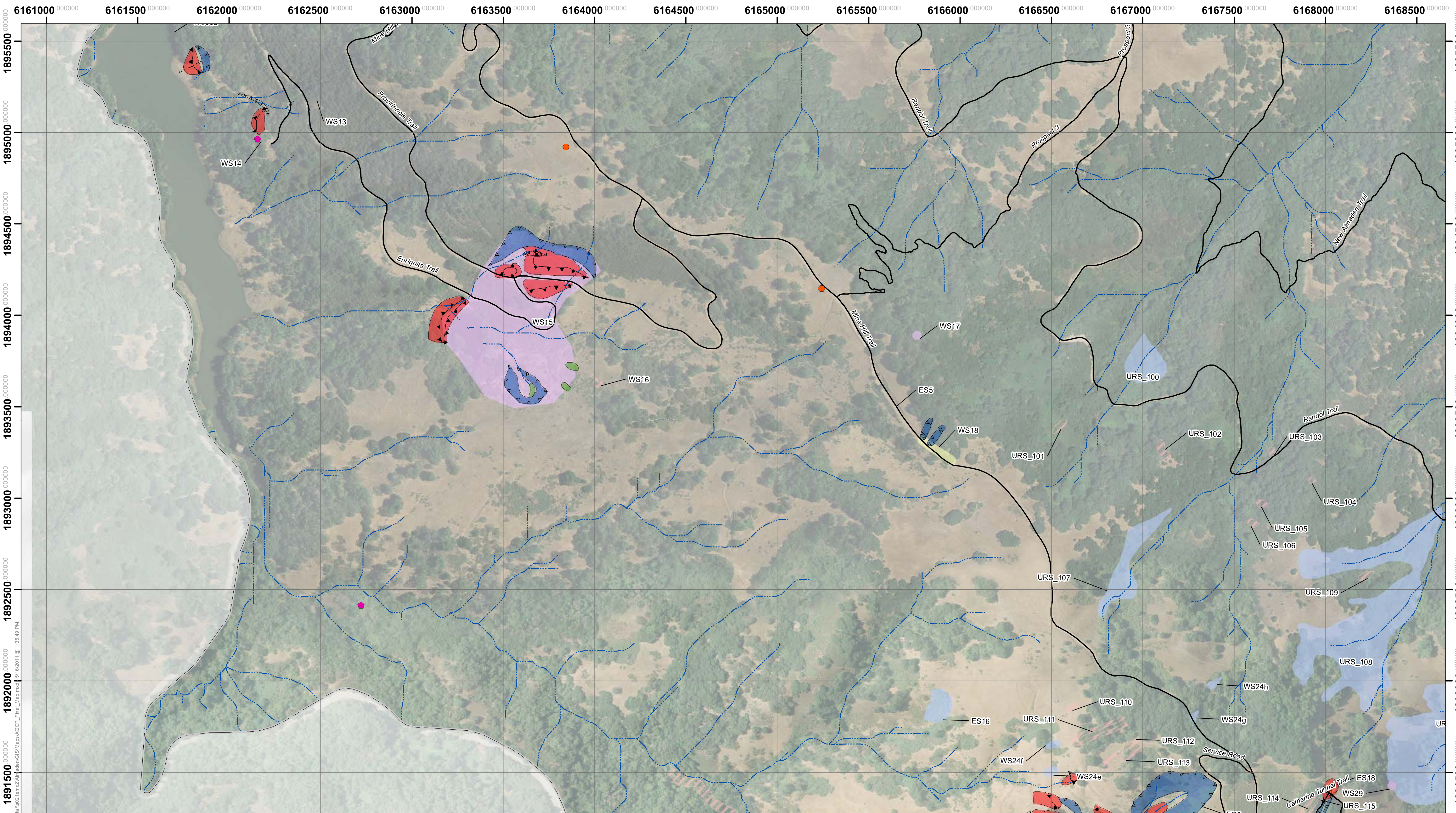


Almaden/Quicksilver boundary
Trail/Service road
Erosional rill
Landslide mass/Evacuated scarp boundary
Stream
Calcine
Calcine pavement
Overburden soil
Rock
Soil
Unknown
Fill/Slope
Landslide (arrows show direction of movement)
Open cut-slope
Seep
Waste derived surficial slope debris
Erosional scar
Open cut-slope
Slope
Erosion location (Exponent, 2007)
THg concentration data (Dames & Moore, 1989)

N

0 250 500
FEET

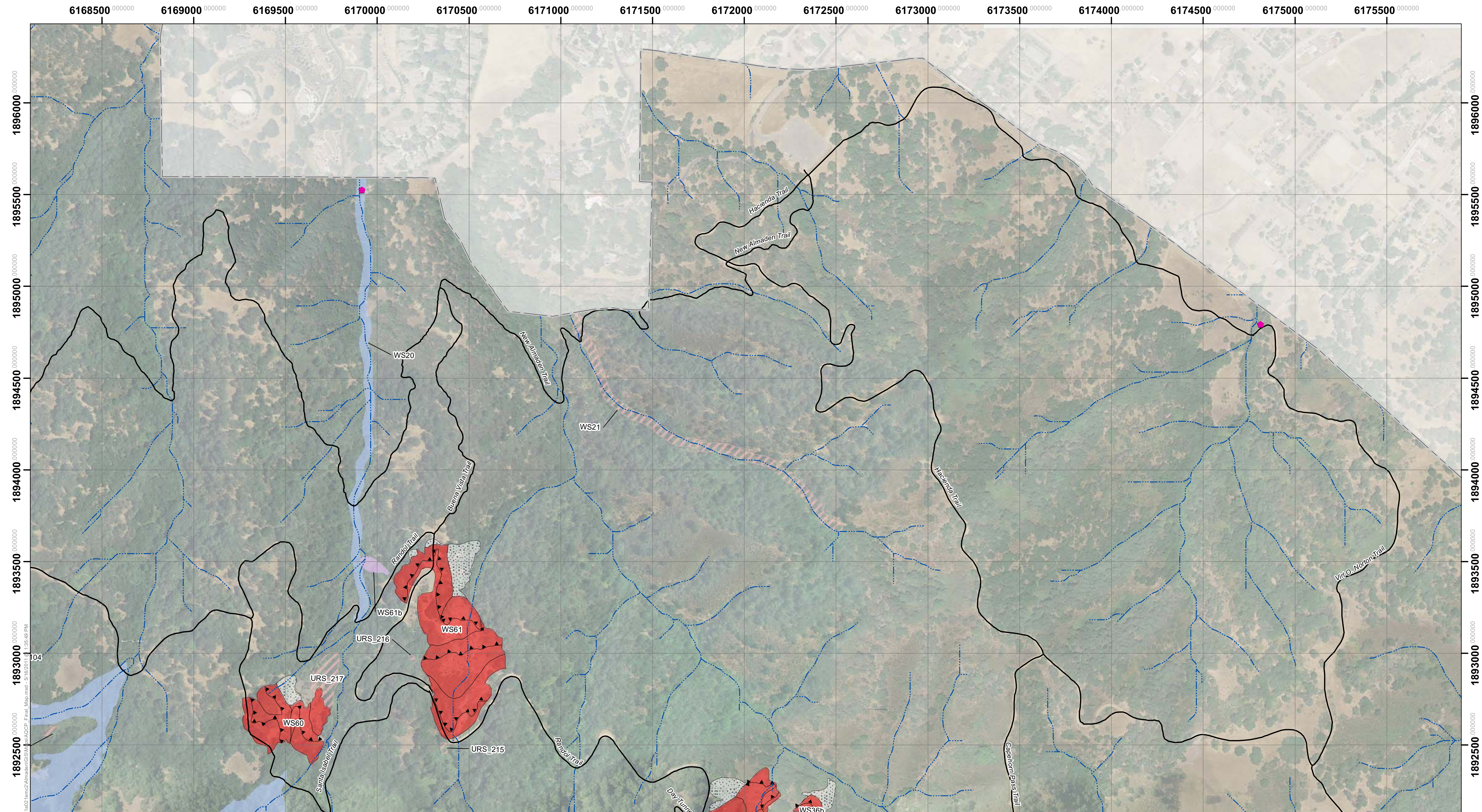
Imagery source: DigitalGlobe ImageConnect Service, 2/12/2010
Base map source: Santa Clara Valley Water District LiDAR

Almaden Quicksilver County Park & Santa Teresa County Park
Mine Material Evaluation

URS

Figure 1 - Tile 4

Feature mapping, Almaden Quicksilver County Park



Almaden/Quicksilver boundary	Calcine	Overburden soil	Fill/Slope	Erosional scar	Open cut-slope	Erosion location (Exponent, 2007)
Trail/Service road	Calcine pavement	Rock	Landslide (arrows show direction of movement)		Slope	THg concentration data (Dames & Moore, 1989)
Erosional rill		Soil	Open cut-slope			
Landslide mass/Evacuated scarp boundary		Unknown	Seep			
Stream			Waste derived surficial slope debris			

N

0 250 500
FEET

Imagery source: DigitalGlobe ImageConnect Service, 2/12/2010
Base map source: Santa Clara Valley Water District LiDAR

Almaden Quicksilver County Park &
Santa Teresa County Park
Mine Material Evaluation

URS

Figure 1 - Tile 5

Feature mapping,
Almaden Quicksilver County Park

6163500.000000 6164000.000000 6164500.000000 6165000.000000 6165500.000000 6166000.000000 6166500.000000 6167000.000000 6167500.000000 6168000.000000 6168500.000000 6169000.000000 6169500.000000 6170000.000000 6170500.000000 6171000.000000

1891500.000000 1891000.000000 1890500.000000 1890000.000000 1889500.000000 1889000.000000 1888500.000000 1888000.000000 1887500.000000

URS_112 WS24f WS24e URS_113 Service Road Mine Hill Trail ES18 WS29 URS_115 Catherine Tunnel Trail URS_114 ES6 WS24 WS24d WS24c WS24b WS24l WS23 URS_123 URS_116 WS28 URS_118 URS_139 URS_117 URS_141 URS_119 URS_125 URS_128 URS_126 URS_142 URS_144 URS_122 URS_121 URS_120 WS46 URS_166 URS_129 San Cristobal Mine Trail URS_130 URS_138 URS_137 URS_131 ES8 URS_127 URS_132 URS_133 URS_135 URS_134 URS_168 URS_136 URS_174 WS68b URS_167 WS68c ES9 URS_170 ES17 WS68 URS_169 URS_173 URS_172 URS_171 URS_274 WS48 URS_275 URS_177 ES1 URS_176 URS_175 Wood Road Trail ES3 ES4 URS_190 WS59

WS66 WS33 April Trail Great Eastern Trail URS_155 WS32 URS_140 URS_157 WS30 URS_156 URS_153 URS_152 URS_154 WS35 URS_151 URS_150 URS_148 WS43 URS_162 WS34 URS_143 WS40 URS_146 URS_149 URS_147 URS_145 Castillero Trail Yellow Kid Trail ES10 WS64b WS31b WS31 WS71 URS_272 WS47 WS67 ES11 URS_182 WS64d WS64c URS_210 URS_185 URS_183 URS_184 URS_181 Hidalgo Cemetery Trail Service Road WS52 URS_178 URS_273 URS_180 URS_179 URS_209 WS49 ES12 WS50 PG & E Service Road WS50b URS_278 URS_277 URS_276 ES13

Access Trail

Access Trail

Hidalgo Cemetery Trail

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Almaden/Quicksilver boundary
Trail/Service road
Erosional rill
Landslide mass/Evacuated scarp boundary
Stream

Calcine
Calcine pavement

Overburden soil
Rock
Soil
Unknown

Fill/Slope
Landslide (arrows show direction of movement)
Open cut-slope
Seep
Waste derived surficial slope debris

Erosional scar
Open cut-slope
Slope

Erosion location (Exponent, 2007)
THg concentration data (Dames & Moore, 1989)

N
0 250 500
FEET

Imagery source: DigitalGlobe ImageConnect Service, 2/12/2010
Base map source: Santa Clara Valley Water District LiDAR

Almaden Quicksilver County Park & Santa Teresa County Park
Mine Material Evaluation

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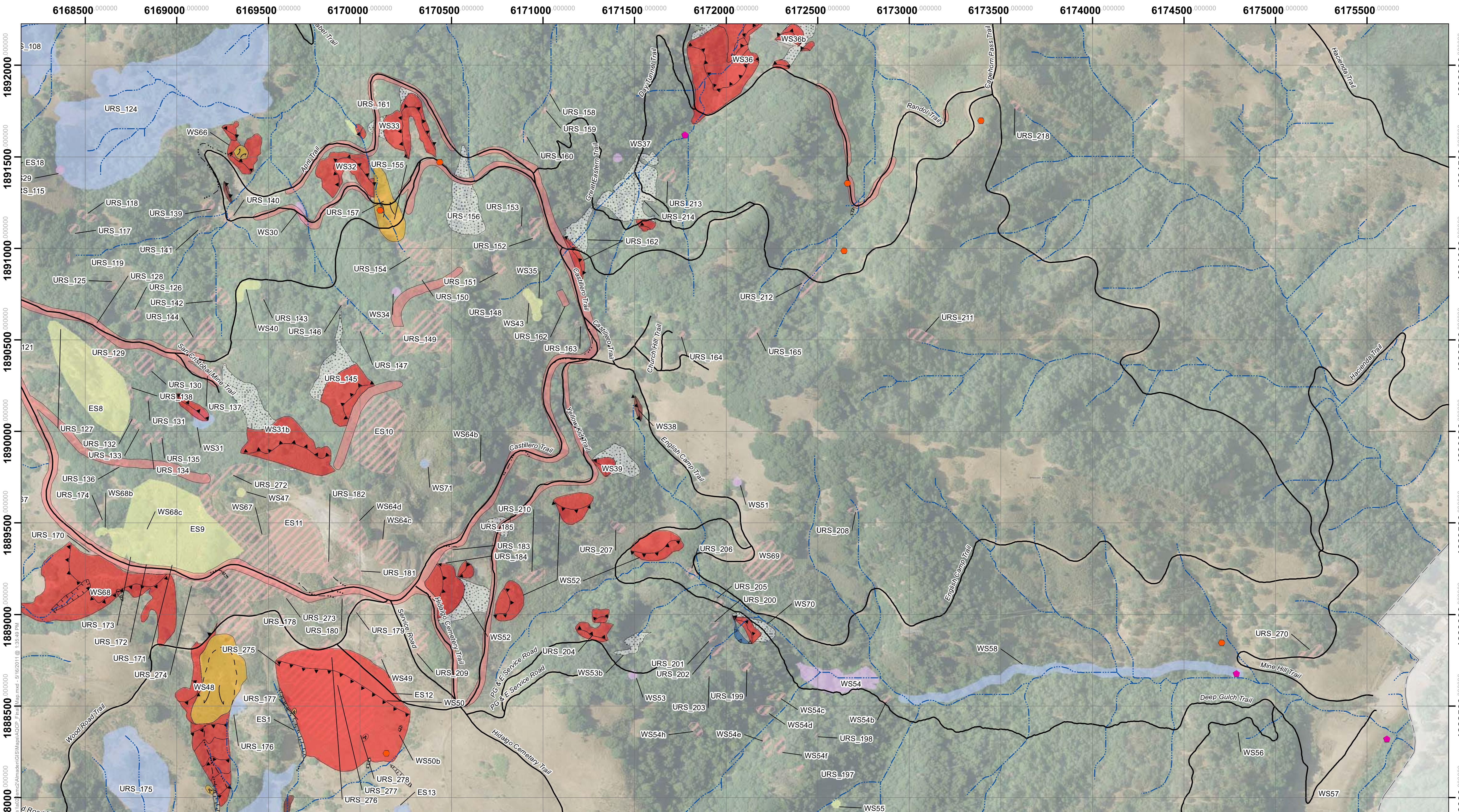
Figure 1 - Tile 6

Feature mapping,
Almaden Quicksilver County Park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6169500
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6170500
6171000
6171500
6172000
6172500
6173000
6173500
6174000
6174500
6175000
6175500
1892000
1891500
1891000
1890500
1890000
1889500
1889000
1888500
1888000
Day Tunnel Trail
Capehorn Pass Trail
Randol Trail
Hacienda Trail
April Trail
Great Eastern Trail
Castillero Trail
Church Hill Trail
San Cristobal Mine Trail
Yellow Kid Trail
English Camp Trail
Service Road
Hidalgo Cemetery Trail
PG & E Service Road
Mine Hill Trail
Deep Gulch Trail
Wood Road Trail
WS36
WS36b
WS37
WS66
WS33
WS32
WS30
WS35
WS34
WS43
WS40
WS31b
WS31
WS38
WS39
WS64b
WS71
WS51
WS67
WS47
WS64d
WS64c
WS68b
WS68c
WS68
WS69
WS52
WS70
WS48
WS49
WS50
WS50b
WS53
WS53b
WS54
WS54b
WS54c
WS54d
WS54e
WS54f
WS54h
WS55
WS56
WS57
WS58
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ES10
ES11
ES12
ES13
ES1
ES18
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URS_177
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URS_175
URS_278
URS_277
URS_276
URS_270

Almaden/Quicksilver boundary
Trail/Service road
Erosional rill
Landslide mass/Evacuated scarp boundary
Stream
Calcine
Calcine pavement
Overburden soil
Rock
Soil
Unknown
Fill/Slope
Landslide
(arrows show direction of movement)
Open cut-slope
Seep
Waste derived surficial slope debris
Erosional scar
Open cut-slope
Slope
Erosion location
(Exponent, 2007)
THg concentration data
(Dames & Moore, 1989)

N
0 250 500
FEET

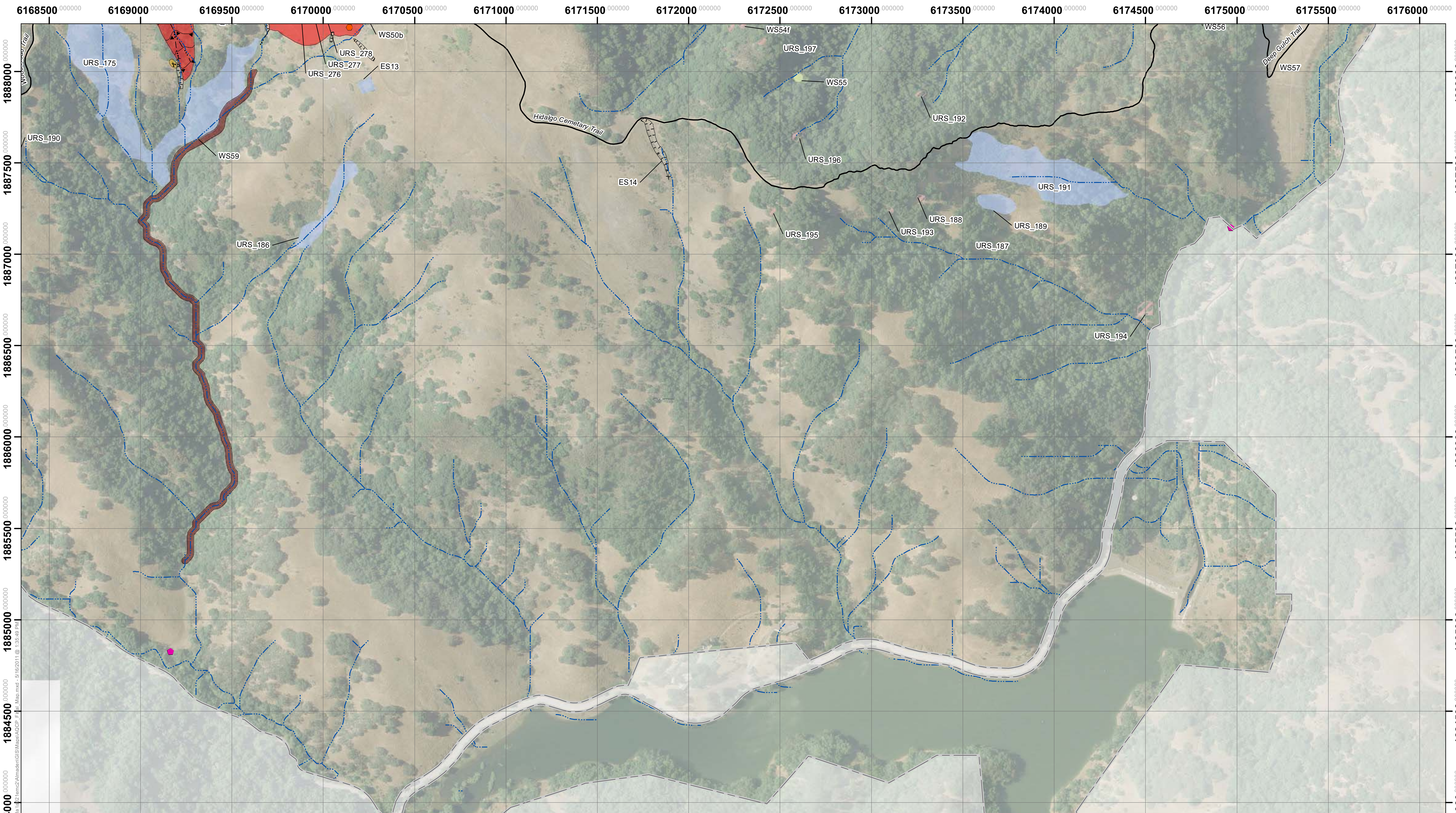
Imagery source: DigitalGlobe ImageConnect Service, 2/12/2010
Base map source: Santa Clara Valley Water District LiDAR

Almaden Quicksilver County Park &
Santa Teresa County Park
Mine Material Evaluation

URS

Figure 1 - Tile 7

Feature mapping,
Almaden Quicksilver County Park



Almaden/Quicksilver boundary
Trail/Service road
Erosional rill
Landslide mass/Evacuated scarp boundary
Stream
Calcine
Calcine pavement
Overburden soil
Rock
Soil
Unknown
Fill/Slope
Landslide (arrows show direction of movement)
Open cut-slope
Seep
Waste derived surficial slope debris
Erosional scar
Open cut-slope
Slope
Erosion location (Exponent, 2007)
THg concentration data (Dames & Moore, 1989)

N
0 250 500
FEET

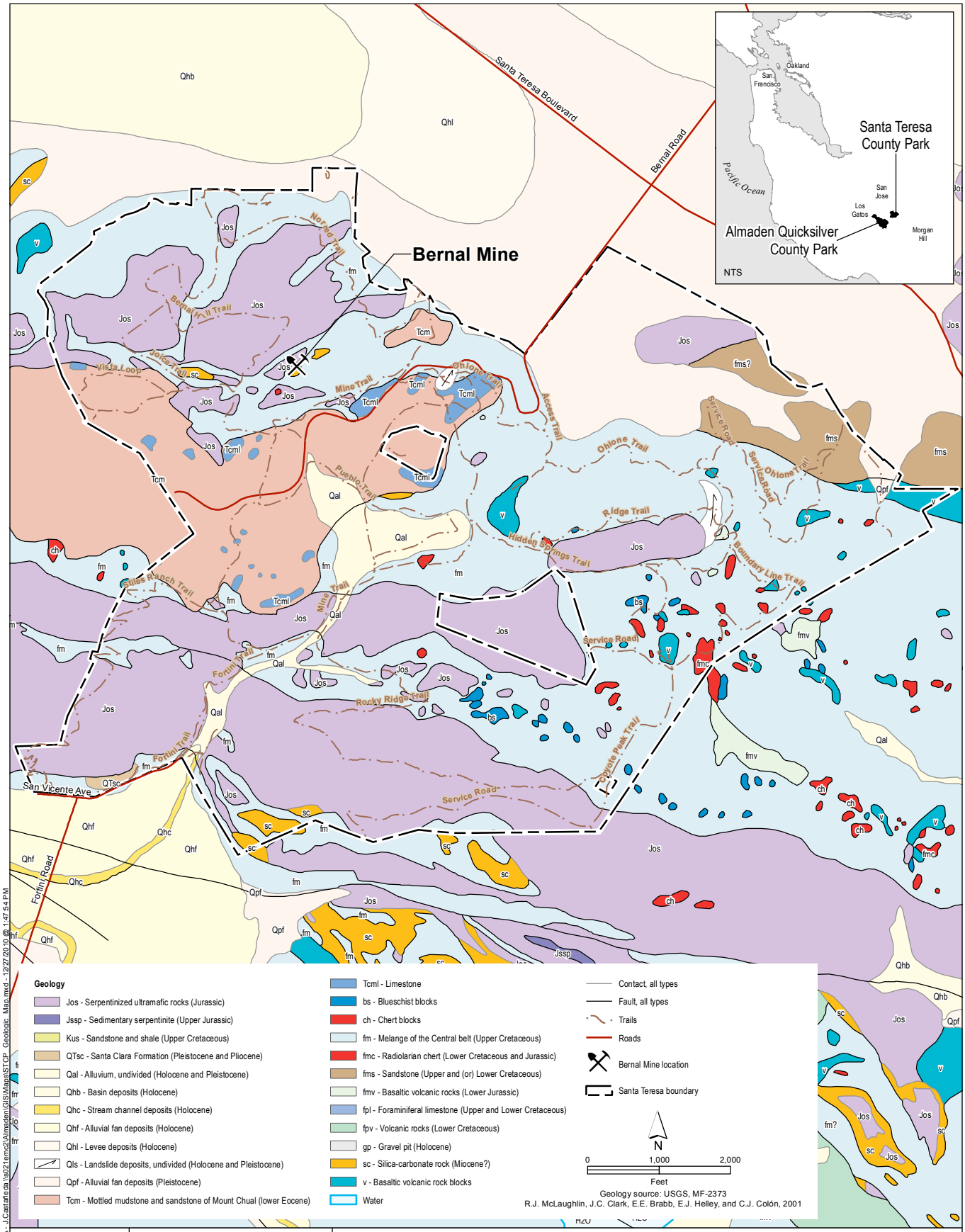
Imagery source: DigitalGlobe ImageConnect Service, 2/12/2010
Base map source: Santa Clara Valley Water District LiDAR

Almaden Quicksilver County Park & Santa Teresa County Park Mine Material Evaluation

URS

Figure 1 - Tile 8

Feature mapping, Almaden Quicksilver County Park



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Almaden Quicksilver County Park and Santa Teresa County Park Mine Material Evaluation

Figure 2
Geologic map of Santa Teresa County Park

APPENDIX A

Appendix A: Selected Site Photographs
Almaden Quicksilver County Park and Bernal Mercury Mine Material Evaluation
Santa Clara Country Parks Department

Photograph 1. WS20, a cemented creek receiving drainage from WS60, the Santa Isabel shaft dump, and WS61, the Buena Vista shaft and Randol dumps.

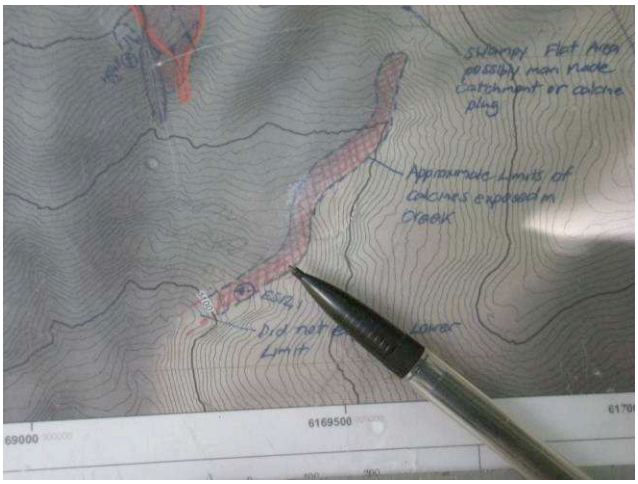
Photograph 2. Mineral encapsulated algae from WS20.

Photograph 3. Erosion site ES1 in drainage channel on toe of Mine Hill repository.

Photograph 4. Calcines exposed by erosion in drainage channel at ES1.

Appendix A: Selected Site Photographs
Almaden Quicksilver County Park and Bernal Mercury Mine Material Evaluation
Santa Clara Country Parks Department

Photograph 5. Beginning of upper Jacques Gulch calcine delineation transect.



Photograph 6. Approximate extent of presumed calcine material in upper Jacques Gulch channel.

Photograph 7. Example of presumed calcine material in upper Jacques Gulch.

Photograph 8. Example of presumed calcine material in upper Jacques Gulch.

Appendix A: Selected Site Photographs
Almaden Quicksilver County Park and Bernal Mercury Mine Material Evaluation
Santa Clara Country Parks Department

Photograph 9. WS65, an area of overburden from the Enriquita Mine on the shoreline of Guadalupe Reservoir.

Photograph 10. Close up of overburden material at WS65.

Photograph 11.WS48 overburden sample collection location.

Photograph 12. Overburden at ES9 on Castillero Trail.

Photograph 13. ES6, overburden area on Mine Hill.

Photograph 14. Bernal Mine brick structure and surrounding area.

Photograph 15. Bernal Mine soil on fill slope.