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Appendix C:  
Technical Report for  
Cultural Resources  
Basin Research Associates

**TECHNICAL REPORT FOR CULTURAL RESOURCES  
INITIAL STUDY**

**HACIENDA AND DEEP GULCH RESTORATION PLAN  
ALMADEN QUICKSILVER COUNTY PARK  
SANTA CLARA COUNTY**

FOR

**ENVIRONMENTAL PLANNING**  
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## 1.0 INTRODUCTION

This Technical Report for Cultural Resources<sup>1</sup> has been prepared for three areas within the *Hacienda and Deep Gulch Restoration Plan* located within the Almaden Quicksilver County Park in Santa Clara County. The report was undertaken to identify both prehistoric and historic resources in order to meet the legal requirements of the California Environmental Quality Act (CEQA) (Public Resources Code 21000 et seq.) 1970, as amended and planning directives of the County of Santa Clara.

The proposed project consists of the removal/stabilization of mine-waste calcine dumps<sup>2</sup> and mercury impacted soils and vegetation restoration in the Deep Gulch, Lower Hacienda, and Upper Hacienda areas within "New Almaden," a National Historic Landmark District (NHL,<sup>3</sup> No. 66000236) formally recorded as CA-SCI-405H (P-43-000411). The County of Santa Clara Almaden Quicksilver County Park includes most of the NHL. New Almaden was ". . . one of the four major sources of the world's supply of quicksilver" important prior to the discovery of the cyanide processing (1887) of gold and silver, and was ". . . the oldest and most productive quicksilver mine in the United States . . . and California's first capital-intensive mining venture." Cinnabar, a distinctive bright red ore of mercury, was mined and heated in furnaces to extract mercury (a heavy, silvery-white, liquid metal). After the mercury was removed, the processed ores called "calcines" was dumped near the processing areas. These residues may have been a source of mercury contamination of soil and downstream locations. Remediation and restoration may reduce further release of mercury load from calcines deposits into the Guadalupe River Watershed (including Alamitos Creek and intermittent Deep Gulch Creek).

This report has been completed to support a CEQA Initial Study/Mitigated Negative Declaration (IS/MND). Santa Clara County Parks and Recreation Department (SCCPR) is the lead agency. CEQA requires a lead agency to determine potential impacts on both historical and archaeological cultural resources eligible for the California Register of Historical Resources (California Register or CRHR) and mitigate impacts on historically or culturally significant resources affected by a development project.

Under CEQA, a project is considered to have a significant effect if it would disrupt or adversely affect one or more properties of historic or cultural significance to the community (CEQA Section 21084.1 and CEQA *Guidelines*). CEQA requires a Lead

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1. Cultural Resource. See Historical Resource (CAL/OHP 2001:83).  
Historical Resource. *Any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or which is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural history of California* (CAL/OHP 2001:84).
  2. Calcines or "roasted ore materials" result from the heating of cinnabar to extract mercury. Mercury was used to recovered gold and silver from ores.
  3. National Historic Landmark (NHL) - *a historic property evaluated and found to have significance at the national level and designated as such by the Secretary of the Interior* (USNPS/IRD 1991:16A:IV:3).

Agency to determine if a project will have a significant effect on the environment and to assess possible impacts.

## 2.0 LOCATION AND DESCRIPTION

The project area consists of discontinuous areas located within the Hacienda Furnace Yard Area of Almaden Quicksilver County Park located at 21785 Almaden Road, San Jose, Santa Clara County (CAL/DTSC 2006:Fact Sheet; Environmental Planning 2009; United States Geological Survey [hereafter USGS] Santa Teresa Hills, Calif. 1980, Township 9 South, Range 1 East [T9S R1E], Mount Diablo Meridian, unsectioned) [Figs. 1-3].

In April 2000 County of Santa Clara with other local municipalities and companies was identified as potentially responsible party (PRP) by the U.S Department of Interior and the State of California (the Trustees) for natural resources damages act (NRDA). In July 2005 a Consent Decree settlement was reached between PRP and the Trustees. The County primary responsibility in accordance the CD is to restore Hacienda Furnace Yard and remove/consolidate and/or stabilize the remaining visible calcine materials, thereby restoring this area to baseline conditions. ~~The Trustees documented and issued t~~ The Almaden Quicksilver Restoration Plan and Environmental Assessment (RP/EA) in October 2008 as a guideline for the area restoration. Both the Consent Decree and RP/EA specifically named Upper Hacienda, Lower Hacienda and Deep Gulch areas at Hacienda Furnace Yard area for restoration. The County engaged CH2M Hill to investigate these sites, identify and document calcines deposits and provide restoration alternates. The product was the Engineer's Report for Hacienda and Deep Gulch Restoration Plan, dated March 2009. The County entered in another contract with CH2M Hill to provide project contract documents (CDs) for Hacienda and Deep Gulch Restoration Project.

The construction plans call for all visible calcine deposits at Hacienda and Deep Gulch areas to be removed, consolidated, and capped in the "San Francisco Open Cut" portion of the Mine Hill area of the Almaden Quicksilver County Park. The calcines will be either stocked piled temporarily at the flat area in Hacienda then transported or directly transported on the existing Mine Hill Trail. The Mine Hill Trail will be closed to public during transportation of the calcines to the consolidation site (CAL/DTSC 2006:*Fact Sheet*; CH2M Hill 2009:1-1/*Engineer's Report*). Appropriate signs will be placed at trail heads and trail junctions warning the public of construction vehicles and informing the public of the project status. During Mine Hill Trail closure, park visitors will be directed to use the Deep Gulch Trail. Alamitos Creek will be temporarily diverted to facilitate construction access across the creek and removal of calcines in the creek proper or in the creek bank. Creek diversion will be accomplished by using temporary check dams, culverts and earthen fill (CH2M Hill 2009a:6-2, 6-7, Table 4-1/*Engineer's Report*).

The discontinuous project subareas include [see Fig. 3]:

- The ***Upper Hacienda*** area involves an area on a steep slope that has exposed soil with minimal non-native grass cover due to dense trees and to native soil and rock

formations at the site. The calcine deposits extend approximately 150 feet along Alamitos Creek from the creek bottom upslope to Alamitos Road and at certain locations calcines material is the creek bank (APN 58-20-004).

UH-1/Deposit #1 consists of an estimated 3,150 square foot (SF) area with an estimated average thickness of 18 feet. The calcine deposit is moderately-cemented, medium to very coarse calcine gravels and cobbles with minor fines; with minor soil cover and largely exposed.

UH-2/Deposit #2 consists of an estimated 2,250 SF area with an estimated average thickness of 8 feet. The calcine deposit is moderately-cemented, medium to very coarse calcine gravel with minor fines; with minor soil cover and largely exposed.

- The ***Lower Hacienda*** area involves an area on a steep slope between Alamitos Creek and Alamitos Road downstream of the Upper Hacienda area and also extends approximately 150 feet along Alamitos Creek (APN 58-20-004).

LH-1/Deposit #1 consists of an estimated 6,000 SF with an estimated average thickness of 5.5 feet. The calcine deposit is moderately to weakly-cemented, fine to coarse calcine gravel with trace to 30% fines; with moderate soil and grass in places.

LH-2/Deposit #2 consists of an estimated 750 SF with an assumed estimated average thickness of 2 feet. The calcine deposit is weakly-cemented, fine to medium calcine gravel with trace to 30% fines; with an approximately 1-foot soil cover.

- The ***Alamitos Creek and Alamitos Creek Bridge*** areas involve removal of calcine deposits along localized areas of Alamitos Creek and below the Alamitos Road bridge. The sites include:

AC-1/Deposit #1 consists of an estimated 170 SF with an assumed estimated average thickness of 0.5 feet. The area contains surficial, loose, calcine gravel and cobbles that occurs as scattered talus over approximately 18 feet along the creek embankment.

AC-2/Deposit #2 consists of an estimated 600 SF with an assumed estimated average thickness of 3 feet. The calcine deposit is moderate to well-cemented, fine to medium calcine gravel with trace to 40% fines and thick soil and vegetation cover. The outcrop extends approximately 150 feet along the creek embankment from 1 to 3 feet above the active creek channel

ACB-1/Deposit #1 consists of an estimated 370 SF with an assumed estimated average thickness of 3 feet. The calcine deposit is within the fluvial sediment and contains an estimated 40% calcine 1-2 inch gravel fragments in a reddish sandy matrix,



ACB-2/Deposit #2 consists of an estimated 370 SF with an assumed estimated average thickness of 3 feet. The calcine material is present within the fluvial sediment matrix.

- The ***Deep Gulch*** area involves an area on the north bank of Deep Gulch Creek beginning at about 40 feet from the Mine Hill trail gate and extending approximately 300 feet to the remains of an abandoned retort<sup>4</sup> (APN 583-23-019).

DG-1/Deposit #1 consists of an estimated 950 SF with an estimated average thickness of three feet. The creek bank is formed of unconsolidated calcines and soil material deposit with fine to medium gravel with trace to 30% fines; with minor soil cover.

DG-1 adjacent area consists of an estimated 4475 SF with an estimated average thickness of six feet. This slope area is characterized by mixed calcines and colluvial materials.

DG-2/Deposit #2 consists of an estimated 450 SF with an estimated average thickness of three feet. This creek bank is formed of unconsolidated calcines and soil material deposit with fine to medium calcine gravel with trace to 30% fines; with minor soil cover. DG-2/adjacent area consists of an estimated 1915 SF with an estimated average thickness of six feet. This slope area is characterized by mixed calcines and colluvial materials.

The Retort Area consists of an estimated 1055 SF with an estimated average thickness of three feet.

### **3.0 REGULATORY CONTEXT - *California Environmental Quality Act***

The California Environmental Quality Act (CEQA) includes regulatory compliance in regard to historical resources. Under CEQA, public agencies must consider the effects of their actions on both “historical resources” and “unique archaeological resources” - a “. . . project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment” (Public Resources Code, Section 21084.1). The CEQA Guidelines define a significant resources as any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (see Public Resources Code, Section 21084.1 and CEQA Guidelines Section 15064.5 (a) and (b)). The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

The CRHR was created to identify resources deemed worthy of preservation on a state level and was modeled closely after the NRHP. The criteria are nearly identical to those of the NRHP which includes resources of local, state, and region or national levels of significance. The CRHR automatically includes properties listed in the National Register, determined eligible for the National Register either by the Keeper of the National Register or through a consensus determination on a project review, or State

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4. Historic Resource #y44 Retort in Allen and Crosby (2002).

Historical Landmarks from number 770 onward. In addition, California Points of Interest nominated from January 1998 onward will be jointly listed as Points and in the CRHR. Landmarks prior to 770 and Points of Historical Interest may be listed through an action of the State Historical Resources Commission. These listings are updated as resources are determined eligible and/or are officially listed. Current listings are maintained by the California Historical Resources Information System, Northwest Information Center, Sonoma State University (CHRIS/NWIC) for Santa Clara County.

### *Historical Resources*

Public Resources Code Section (PRC) 21084.1 stipulates that any resource listed in, or eligible for listing in, the CRHR is presumed to be historically or culturally significant.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks register or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be “historical resources” for the purposes of CEQA unless a preponderance of evidence indicates otherwise (Public Resources Code, Section 5024.1g; California Code of Regulations, Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially affected by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project’s impacts on historical resources (Public Resources Code, Section 21084.1; CEQA Guidelines, Section 15064.5(a)(3)). In general, a historical resource is defined as any object, building, structure, site, area, place, record, or manuscript that:

- a) Is historically or archaeologically significant; or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and
- b) Meets any of the following criteria:
  - (1) is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
  - (2) is associated with the lives of persons important in our past;
  - (3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
  - (4) has yielded, or may be likely to yield, information important in prehistory or history.

For historic buildings and structures, CEQA Guidelines Section 15064.5(b)(3) indicates that following the Secretary of the Interior’s Standards for the Treatment of Historic

Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), mitigates impacts to a less than significant level. Potential eligibility also rests upon the integrity of the resource. Integrity is defined as the retention of the resource's physical identity that existed during its period of significance. Integrity is determined through considering the setting, design, workmanship, materials, location, feeling, and association of the resource.

### *Archaeological Resources*

When an archaeological resource is listed in or eligible to be listed in the CRHR, Section 21084.1 requires that any substantial adverse effect to that resource be considered a significant environmental effect. Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of a project's environmental analysis. Either of these benchmarks may indicate that a proposal may have a potential adverse effect on archaeological resources.

CEQA also requires lead agencies to consider whether projects will affect "unique archaeological resources" (Public Resources Code, Section 21083.2(g)) which are defined as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Treatment options for unique archaeological resources include preservation in place in an undisturbed state; excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a "unique archaeological resource").

### *Native American Burials*

California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (see Section 7050.5(b) of the California Health and Safety Code; Public Resources Code 5097.8; and, CEQA Guidelines section 15064.5(e)).

## 4.0 METHODOLOGY

### 4.1 RESEARCH SOURCES CONSULTED AND RESULTS

#### 4.1A Sources Consulted

A prehistoric and historic site record and literature search was completed by the California Historical Resources Information System, Northwest Information Center, Sonoma State University, Rohnert Park (CHRIS/NWIC File No. 09-0248 dated September 3, 2009).

In addition, a review of pertinent literature and archival records on file at Basin Research Associates and at other repositories including the Bancroft Library, University of California, Berkeley, were consulted. The *Historic Properties Directory* for Santa Clara County (CAL/OHP 2009a) provides the most recent updates of historic property evaluations including the National Register of Historic Places, California Historical Landmarks, and California Points of Historical Interest reviewed by the State of California Office of Historic Preservation (OHP). Other sources consulted include: the *California History Plan* (CAL/OHP 1973); *California Inventory of Historic Resources* (CAL/OHP 1976); *Five Views: An Ethnic Sites Survey for California* (CAL/OHP 1988); *Archeological Determinations of Eligibility* (CAL/OHP 2009b); *Historic Civil Engineering Landmarks of San Francisco and Northern California* (American Society of Civil Engineers 1977); and, other local and regional surveys/inventories and lists (see REFERENCES CITED AND CONSULTED).

#### 4.1B Results - *Recorded and/or Reported Sites*

The project is within the "New Almaden" National Historic Landmark District (NHL; 66000236) (Larew 1978/NR form) and has been formally recorded as CA-SCI-405H (P-43-000411) (Cooper 1978/form). The resource has been documented by the Historic Architectural Building Survey (HABS CA-114, New Almaden Quicksilver Mine; HABS CA-1125 Mine Hill School).<sup>5</sup>

Other formally recorded sites within the district but not located within 0.25 miles of the project include: CA-SCI-147 (P-43-000159), a prehistoric site at 21156 Almaden Road; CA-SCI-271 (P-43-000280), Spanishtown or Mexican Town [Mexican Camp] on "Mine Hill";<sup>6</sup> and P-43-001512 and P-43-001513.

#### *Compliance Reports*

Six compliance reports on file with the CHRIS/NWIC include the project or part of the project. These reports include a *National Survey of Historic Sites and Buildings* form and

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5. Larew (1978:10/NRform) provides a copy of the New Almaden map in Pace (1975:10-11, 48 [map]) but does not include a USGS topographic map. Cooper's (1978/form) uses the map attached to Everhart (1959/Part S-4665). Larew states that the boundaries of the NHL (CA-SCI-405/H) and the "New Almaden Historic Area Rezoning" are coincident. They are similar (e.g., SCICo/PO 2009 H1, *New Almaden Historical Conservation Zoning District*).

6. The Spanishtown Site is also a designated State of California Ethnic site (CAL/OHP 1988:249-250, Mexican #87).

projects involving transportation pre-planning (mapping of sites throughout Santa Clara County); cultural resources within the City of San Jose and Sphere of influence for City of San Jose General Plan updates;<sup>7</sup> survey, review and evaluations of historic resources within the Almaden Quicksilver County Park; and, a geoarchaeological overview (see following).

*National Survey of Historic Sites and Buildings form for New Almaden* [Mining District], Santa Clara County, California (Everhart 1959, revised Snell 1964/S-4665) summarizes the importance of the district, provides a historic context and "present appearance," along with an extremely short summary of historic structures extant, and includes Von Leicht's 1880 Plat of the Hacienda, New Almaden.

*Cultural Resource Evaluation of The Reduction Works/Mine Office Site and the Mine Manager's House at the New Almaden Quicksilver Park in New Almaden, In The County of Santa Clara* (Cartier and Detlefs 1985/S-7561). The site of the Reduction Works/Mine Office as mapped in this report includes a portion of the Deep Gulch Area. The survey of the reduction works note "extensive disturbance to a possible depth of thirty feet." The Recommendations included mechanical testing to locate foundations; compile a map showing all structures and features at the Reduction Works site including photographs and HABS drawing of the Mine Office [not in the project]; and, archaeological monitoring during construction.

*Cultural Resources Review for the City of San Jose 2020 General Plan Update, Santa Clara County, California* (Garaventa and Guedon 1993/S-15228). The project is shown in an area of archaeological sensitivity.

*Recorded Archaeological Resources in Santa Clara County, California (plotted on the BARCLAY 1993 LoCaide Atlas)* (Basin Research Associates 1994/S-16394). This report maps various archaeological sites and Hendry and Bowman (1940) adobe locations and other buildings schematically. None are shown in or adjacent to the project.

*Preliminary Recordation and Assessment of Historic Resources in New Almaden Quicksilver National Historic Landmark District* (Allen and Crosby 2002/S-29851). This document provides an overview historical context within the district - a Historical Chronology with references to Technical Appendices (appendices not attached to report); locations of known and accessible historic resources recorded during their survey; and, a limited bibliography. The cultural resource data base, the creation of which was a goal of the project is also reviewed. The historic resources locational data for the surveyed area was integrated into the County of Santa Clara GIS system. Historic Resource #y44 Retort<sup>8</sup> near the Hacienda

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7. New Almaden is within the City of San Jose's Sphere of Influence.

8. Retort - "A device used to roast mercury ore to drive off the mercury as a vapor. The most common type of retort is a 12-inch iron tube with removable but tight-sealing caps at each end. The tube is usually horizontal or set at a slight angle over a fire box. Most retorts are tow-tube; about 8 feet long, and hold about 800 to 1600 pounds of ore. The retort is connected to condensers which trap the hot mercury vapor until it cools back into liquid mercury. With a retort, gases from the burning fuel do not contact the ore directly or mix with the mercury vapor. A retort usually operates intermittently (ore is added or withdrawn between periods of firing)." (Schneider 1992:166).

entrance<sup>9</sup> is listed on Table 1 *Historic Resources Recorded during the Current Project*, one of 51 Miscellaneous Sites.<sup>10</sup> "Fieldwork focused on those resources that had [been] previously identified by volunteers of the New Almaden Quicksilver Mining Museum and members of the New Almaden Quicksilver County Park Association."

Table 2 *Preliminary Treatment Values Assigned to Historic Resources* ranks #y44 as in fair condition, with medium/high integrity, low accessibility, low/medium interpretive value, and as low priority [for treatment]. The following discussion of treatment approaches does not include the retort specifically. The *Archaeological Site Protection and Monitoring Review* is geared to preservation and monitoring of unauthorized ground disturbance including: erosion, vehicular/pedestrian/animal damage, looting, littering, etc. *Recommendations for Future Studies* includes the statement that "Resources should be considered part of an historic landscape."<sup>11</sup> A Summary of Priorities precedes a limited bibliography.

The copy of the report on file at the CHRIS/NWIC lacks the Recorded Historic Resources Forms, Technical Appendices, and maps with the numbers of individual historic resources recorded (Table 1) and preliminary treatment values (Table 2).

*Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4* (Meyer and Rosenthal 2007/S-33600). The study area is shown as pre-Holocene (>11,800 years), undifferentiated sediment (Fig. 7). None of the Selected Buried Archaeological Sites (Fig.5 in report) in the Nine-County Region of District 4 are in the New Almaden area.

Other known information on file at the CHRIS/NWIC consists of the 1978 National Register of Historic Places Nomination Form for the "New Almaden Historic District" (Larew 1978).

Two pamphlets were also consulted: the Santa Clara County Parks and Recreation Department pamphlet for the Almaden Quicksilver County Park (SCICo/P&R 2009) and the Almaden Quicksilver Historic Trail by the Boy Scouts of America, Troop 466, Sunnyvale, California (n.d.).

### *Listed Historic Properties*

The project area is within the "New Almaden" National Historic Landmark District (NHL; 66000236) and has been formally recorded as CA-SCI-405H (P-43-000411).

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9. "Hacienda" subarea map "Retort" conforms to the "Retort" within the western part of the Deep Gulch area as shown on CH2M Hill (2009a:Table 4-1 *Final Engineer's Report*) and other project figures.
  10. There is no statement that it is significant and/or a contributor to the district.
  11. Cultural landscape - *a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values*. There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes (USNPS 1994:4).

Portions of the district have been documented by the Historic Architectural Building Survey (HABS CA 114, New Almaden Quicksilver Mine).

Neither the National Survey of Historic Sites and Buildings form (Everhart/Snell 1964/S-4665) nor the National Register of Historic Places Inventory Nomination Form for New Almaden Historic District (Larew 1978) state criteria or explicitly list contributors<sup>12</sup> and/or non-contributors to the district. Within Hacienda the National Register form lists: (1) Casa Grande, (2) the Bulmore and Carson Houses, (3) Miner's Cottages [number not stated], (4) The Toll House "At the point where the Mine Hill road begins" [at Alamitos Road] and, (5) St. Anthony's Church.

Other sources provide the New Almaden Historic District criterion for listing, "a," that is association ". . . with events that have made a significant contribution to the broad patterns of our history"; (e.g., Barker and Huston 1990:Appendix B). As a NHL and listed on the National Register of Historic Places, the district is automatically on the California Register of Historical Resources (CRHR) under CRHR criterion 4.

The district/components of the district are listed on various state, county, and City of San Jose lists.

The "New Almaden Mine" within the district is California State Historic Landmark #339 and 339-1 (CAL/OHP 1990:232). The New Almaden Mine was located on Mine Hill, approximately 1.1 miles west/slightly northwest of the Deep Gulch Area of the project.

The 1973 *The California History Plan* lists "New Almaden Mine" (CAL/OHP 1973:176) and some of the individual historic properties within the district.

The "New Almaden" [Historic District] and some of the individual historic properties within the district are also listed on the 1976 *California Inventory* (CAL/OHP 1976:266).

"New Almaden" is also a Santa Clara County H1 New Almaden Historical Conservation Zoning District with Scenic Route Overlay. The 1999 *Santa Clara County Heritage Resource Inventory* lists the New Almaden Historic District and Mine and 24 separate properties - mostly buildings - within the district as well as Italian cypress trees at the Hidalgo Cemetery on Bertram Road and the Estate Trees at Casa Grande at 21350 Almaden Road. In addition, the County Zoning ordinance includes lists of Designated Historic Structures of the New Almaden Historical Area (SCICo/PO 2003).

The *City of San Jose Historic Resources Inventory* lists "New Almaden (District)" along with 21 properties within the district on Almaden Road (including Mine Hill Brick Chimney and Vichy Springs) and another four on Bertram Road (including Hacienda Cemetery) (SJHLC/PBE 2009).

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12. Contributing Resource - a building, site, structure, or object adding to the historic significance of a property (USNPS/IRD 1991:16A:IV:1).

The *Historic Properties Directory* for Santa Clara County (CAL/OHP 2009a) lists the New "Almaden Mine" on Almaden Road, in New Almaden as a State Landmark and "New Almaden" on New Almaden Road [*sic*], in the vicinity of San Jose [no criteria listed]. CA-SCI-405H (P-43-000411) is not listed on the *Archeological Determinations of Eligibility* (CAL/OHP 2009b).

"Hacienda of New Almaden Historic District," Almaden is listed on the *California Inventory of Historic Resources* theme of Exploration/Settlement. The entry states "*Twenty-one structures including the one story adobe called the Carson House and El Adobe Viejo. Settled and Developed 1848-1858. Active Restoration. First Historic District in County*" (CAL/OHP 1976:137, 265).

No other known city, state and/or federal historically or architecturally significant structures, landmarks or points of interest have been identified in/adjacent or include the project.

#### 4.2 FIELDWORK

An archaeological inventory of the three discontinuous areas of interest within the proposed project was conducted by Stuart A. Guedon (M.A.), Basin Research Associates, on October 12, 2009. An additional inventory of the three Alamitos Creek crossings and the Alamitos Creek Bridge was completed by Mr. Guedon on November 30, 2009.

#### 4.3 AGENCIES, GROUPS AND INDIVIDUAL PARTICIPATION

The State of California Native American Heritage Commission (NAHC) was contacted for a review of the Sacred Lands Inventory (Busby 2009a). This review was negative; letters were sent to nine individuals and groups recommended by the NAHC (Pilas-Treadway 2009). Letters soliciting additional information were sent to the nine Native Americans individuals/groups listed by the NAHC (Busby 2009b-j). Four responses were obtained. No concerns were noted by one individual; one individual recommended contacting more knowledgeable Ohlones; another individual wanted notification if any prehistoric materials were found; and, one individual recommended that if anything was found that standard procedures be followed (see Exhibits).

Past Forward, Inc., the archaeological consulting firm who completed the 2002 review of the New Almaden Quicksilver National Historic Landmark District, was contacted regarding their work and to obtain the technical documents not on file with the CHRIS/NWIC (see Allen and Crosby 2002/S-29851). No response was received. The County of Santa Clara Parks and Recreation Department was also contacted for a copy of the form and/or other data available. No other data were available (Contacts: Mark Fredrick, Jane Mark, and Mohamed Assaf).

No other individuals or groups were contacted for this report.



## 5.0 SUMMARY BACKGROUND CONTEXT

### 5.1 NATIVE AMERICAN

#### 5.1A Prehistoric

The project area, located south of the Santa Teresa Hills in the New Almaden area which includes part of Alamitos Creek and the intermittent Deep Gulch Creek, appears to have been within an area favored by Native Americans for occupation, hunting and collecting activities including the procurement of cinnabar. The general area would have provided a favorable environment during the prehistoric period with riparian and inland resources readily available. Native American occupation and use of the general study area appears to extend over 5000-7000 years and may be longer. Occupation sites appear to have been selected in the area for accessibility, protection from seasonal flooding, and the availability of resources. Archaeological information suggests an increase in the prehistoric population over time with an increasing focus on permanent settlements with large populations in later periods. This change from hunter-collectors to an increased sedentary lifestyle is due to more efficient resource procurement with a focus on staple food exploitation, the increased ability to store food at village locations, and the development of increasing complex social and political systems including long-distance trade networks.

General overviews and perspectives on the regional prehistory including chronological sequences can be found in C. King (1978a), Moratto (1984), Elsasser (1978, 1986), Allen (1999), Jones and Klar (2007). See Hylkema (2002) for detail regarding environment and chronology for selected archaeological sites from the southern San Francisco Bay and the peninsula coast and Milliken et al. (2007) for chronological and other data for the San Francisco Bay Area.

No recorded or known prehistoric sites have been identified within, immediately adjacent to the project or within 0.25 miles of the project (CHRIS/NWIC File No. 09-0248). Historic era mining activities have impacted the general study area. The general distribution of recorded sites along Alamitos Creek suggests the presence of a prehistoric and probable ethnographic trail in the area (see Elsasser 1986:48-49, Table 4, Fig. 10).

#### 5.1B Ethnographic

The project area appears to be within Costanoan territory who are also known as the *Ohlone*.<sup>13</sup> The project is within the far southern part of *Tamyen* (*Tamien*) territory with "San Jose Bautista" tribelet located north of the project (Levy 1978:485, Fig. 1, #10. Milliken (1995:229, Map 5, 252) places the *Ritocsi*, with reservation as to name of the group, in the area from downtown San Jose south to New Almaden. The village of "San Juan Bautista" as listed in Mission Santa Clara registers was likely the northernmost village of the tribe. Hylkema (1995:35, #4, 36, Map 6) places the San Juan Bautista along the Guadalupe River near Hillsdale in South San Jose and refers to them as

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13. People of Costanoan descent presently residing in the greater San Francisco Bay Area generally prefer to use the term *Ohlone* to Costanoan (see Galvan 1967/1968; Margolin 1978; Bean 1994).

*Matalan* people.<sup>14</sup> King (1994:203, 205, Fig. 7.1) also places the study area within the territory of the San Carlos Group. One of the San Carlos villages closest to Mission Santa Clara was known as San Juan Bautista (San Jose south of Hillsdale)

Within the subareas, the population was further subdivided into tribelets. In 1770, these tribelets were politically autonomous groups containing some 50-500 individuals, with an average population of 200. Tribelet territories, defined by physiographic features, usually had one or more permanent villages surrounded by a number of temporary camps. The camps were used to exploit seasonally available floral and faunal resources (Levy 1978:485, 487). Although the locations of tribelets and settlements are inexact due to incomplete data, historic accounts suggest that a several of the groups may have had temporary camps within the vicinity of the project area throughout the prehistoric period and into the Hispanic Period.

The New Almaden Quicksilver Mines (Harper's 1863:5) was supposedly known as "Red Cave" during the protohistoric period. Cinnabar, mercury ore, was an important trade item for the Costanoans and groups located as far as Washington and Oregon appear to have received the material. The bright red mineral was used as body paint for ritual and non-ritual purposes by the Costanoans (Swan 1857:313-314; Harrington 1942:17, 18, 44; Heizer and Treganza 1944:312).

*The Indians of Santa Cruz and Santa Clara (Mission) seem to have always have been in fights about the possession of the cinnabar mine, now the immensely rich New Almaden. The Indians away from the Tulares and Sacramento, were also accustomed to come often to get their share of the 'red paint,' and great battles were often fought in these 'vermillion expeditions. One of them occurred even as late as 1841 or 1842, when several of the intruders were killed by Santa Clara Indians (Taylor 1860, 1864).*

Early visitors to the mine describe an irregular tunnel ca. 50 to 100 feet in length and the presence of crushed Native American human remains due to at least one mining accident (Downer 1854:221).

The Costanoan aboriginal lifeway apparently disappeared by 1810 due to its disruption by new diseases, a declining birth rate, and the impact of the mission system. The Costanoan were transformed from hunters and gatherers into agricultural laborers who lived at the missions and worked with former neighboring groups such as the Esselen, Yokuts, and Miwok. Later, because of the secularization of the Missions by Mexico in 1834, most of the aboriginal population gradually moved to ranchos to work as manual laborers (Levy 1978:486).

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14. C. King has assigned the ". . . Almaden Valley between the Santa Teresa Hills and Coyote Creek and the entire Coyote Valley to the *San Carlos* tribelet or group, also referred to as the *Matalan* tribe, a native term, and places the tribelet's primary village, *Matalan*, at *La Laguna Seca* in Coyote Valley (C. King 1977:36, 38-39, 42, 44, 54/S-4395).

For a more extensive review of the Costanoan see Kroeber (1925:462-473), Harrington (1942), Galvan (1967/1968), King and Hickman (1973), C. King (1974, 1977, 1978b, 1994), Levy (1978:485-495), Bean (1994), Brown (1994), and Milliken (1995).

## 5.2 HISTORIC ERA

### 5.2A Hispanic Period

Spanish explorers in the late 1760s and 1770s were the first Europeans to traverse the Santa Clara Valley. The first party, led by Gaspar de Portola and Father Juan Crespi, arrived in the Alviso area in the fall of 1769. Sergeant Jose Francisco Ortega of their party explored the eastern portion of San Francisco Bay and likely forded both the mouth of the Guadalupe River and Coyote Creek. The following year, Pedro Fages led another party through the Santa Clara Valley and in 1772 Fages returned with Crespi. As mapped by Beck and Haase (1974:#17) Rivera-Palou's 1774 and Hezeta-Palou's 1775, and Anza-Font's 1776 expeditions would have passed through the Santa Teresa Hills north of project. The 1776 Juan Bautista de Anza route is a designated National Historic Trail (USNPS 1995).

The favorable reports by Juan Bautista de Anza and Father Pedro Font through the region led to the establishment of both Mission Santa Clara and the Pueblo San Jose de Guadalupe in 1777. *Mission Santa Clara de Asis*, the eighth of the 21 missions founded in California, one of seven missions located within Costanoan territory, would have been the mission with the greatest impact on the aboriginal population living in the project vicinity (Beck and Haase 1974:17; James and McMurry 1933:8; Hart 1987:112-113, 324).

Generally, the Spanish philosophy of government in northwestern New Spain was directed at the founding of presidios, missions and secular towns with the land held by the Crown (1769-1821). The later Mexican policy (1822-1848) stressed individual ownership of the land (Hart 1987).

Throughout the Hispanic Period, the New Almaden Mines gained increasing importance. Hall (1871:396) states that word *Almaden* is compound word derived from Arabic, the article "*al*" or "the" followed by the noun, "*maden*" or "mine." New Almaden was named after Almaden, a famous quicksilver mine in Almaden, Spain which had operated for centuries (Lanyon and Bulmore 1967:9; Butler 1991:157).

The "discovery" of the cinnabar mine approximately 14.0 miles and currently 11.0 miles south of the City of San Jose (Sawyer 1922:86; Butler 1991:157) is credited to a number of individuals - anonymous Mission Indians, the "Robles family" as reported by an old Indian (Hall 1871:397; Luis Chaboya and/or Don Antonio Sunol (Bailey 1951:263; Lanyon and Bulmore 1967:2; Sawyer 1922:86-87); and, by Frenchman Antoine Surrol in 1824 (Harper's New Monthly 1865:23). The mine was abandoned in 1824 after concluding that the mineral was cinnabar, rather than the more highly valued silver. However, as early as 1825-1826, cinnabar from the New Almaden mines was used as a pigment to "paint" the Church at Mission Santa Clara (Hall 1871:397; Heizer and Treganza 1944:312, from Bulmore, personal communication). In 1845, a Mexican Army

officer, Don Andres Castellero, examined a sample of the bright red pigment at Mission Santa Clara in November 1845. On a return visit to the Mission in December, Castellero proved the existence of mercury or quicksilver. As a result, Castellero was awarded the mine by Antonio Maria Pico (Bailey 1951:263; Lanyon and Bulmore 1967:1-7).

The project is within former *Rancho San Vicente* (Berreyesa) granted by Governor Alvarado to Jose Reyes Berreyesa on August 1, 1842. It was patented to his widow Maria Z.B. Berreyesa et al. on June 24, 1868 five years after the mines had fallen into the possession of the Quicksilver Mining Company. This rancho was involved in some of the most controversial title litigation in California due to presence of the New Almaden mines. No known adobe dwellings or other structures were located in or adjacent to the project (Stratton 1861; Hendry and Bowman 1940:950-953 Hoover et al. 1966:435-436). Hendry and Bowman list and map four known locations (H&B #94-#97); they were unable to map four other adobe(?) dwellings built in the late 1830s or early 1840s.

## 5.2B American Period

In the mid-19<sup>th</sup> century, the majority of the rancho and pueblo lands and some of the ungranted land in California was subdivided as the result of population growth, the American takeover, and the confirmation of property titles. Growth can be attributed to the Gold Rush (1848), followed by the completion of the transcontinental railroad (1869) and local railroads. Still later, the development of the refrigerator railroad car (ca. 1880s) used for the transport of agricultural produce to distant markets, had a major impact on the Santa Clara Valley. During the later American Period and into the Contemporary Period (ca. 1876-1940s), fruit production became a major industry. This predominance of fruit production/processing held steady until after World War II. In recent decades this agrarian land-use pattern has been gradually displaced by residential housing, commercial centers, and the development of research and development and manufacturing associated with the electronics industry leading to the designation of the general region as the "Silicon Valley." Within the Santa Clara Valley, the City of San Jose served as a County seat, a primary service as well as financial and social center (Broek 1932:76-83; Hart 1987).

See the Historical Chronology in Allen and Crosby (2002:3-14/S-29851) for resources/events from 1824 through 2000.

The New Almaden Mines became the most prominent quicksilver mine in the Western Hemisphere notable as the ". . . first workable quicksilver mine in North America", the "first mine of any kind in California ... preceded the Coloma gold discovery of January 1848 by 27 months; the "richest mine in California"; "broke an international monopoly"; and kept both California and Nevada in the Union. New Almaden included the settlements of Hacienda, Englishtown, and Spanishtown. What became known as "Hacienda" includes the Upper and Lower Hacienda area of the project. Hacienda was the first settlement and the gateway to the mines. Structures were built on banks of Alamitos Creek for workers and later included the furnace<sup>15</sup> operations at the south end at

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15. Furnace - *A device used to roast mercury ore in order to liberate the mercury as a hot gas. It is connected to condensers which cool the gas. A furnace is typically internally fired (i.e., the heat*

the base of the mine hills. Its name was derived from "*Hacienda de Beneficio*,"<sup>16</sup> a Mexican Spanish mining term for reduction works [mineral ore].

**Hacienda**, a settlement/village of over fifty (50), had a population of 223 in 1890 - 56 Spanish American and 167 Anglo American and others - and about 250 in the late 1890s. Facilities included a hotel, public hall, a store, the superintendent's residence, and other buildings housing a post office, telegraph and express office, and a public school.<sup>17</sup> The dismantling and destruction of the Hacienda office and reduction works took place in about 1963. The County purchased 3,600 acres from the New Idria Mining Chemical Company, the predecessor to Meyers Industries, in 1973 and 1975 to create Almaden Quicksilver County Park. The Almaden Quicksilver County Park opened to public access in 1975. The original Reduction Works on the west side of Almaden Road at the Hacienda (11+ acres) was purchased and added to the park in 1982 by Santa Clara County (*San Jose Mercury* 1896:114; Rambo 1964:13; Lanyon and Bulmore 1967:9; Cuyás 1972:291; Butler 1991:157-158; Allen and Crosby 2002:14; Aspen et al. 2008:7 *Final Initial Study and Mitigated Negative Declaration Jacques Gulch Restoration Project*).

#### *Limited Project Specific Historic Map Review*

Goddard's 1857 *Map of the State of California* shows the New Almaden Quicksilver Mines, but not Almaden/Alamitos Road.

Stratton's 1861 plat *Rancho San Vicente* shows no features in the vicinity of the project.

Healey's 1866 *Official Map of the County of Santa Clara* shows the outline of *Rancho San Vicente* with slightly illegible "Maria Berreyesa et al," Almaden Road (not labeled) to "New Almaden," and on to road to "Mine Hill." The latter road appears to conform to present-day Mine Hill Road (Hill Road). Structures mapped schematically on Mine Hill (4 buildings) and in the Hacienda area (6 buildings).

Hare's 1872 *Map of Vicinity of San Jose* is limited to creeks, major roads, schools, towns/cities and major points of interest within about 12 miles of the City of San Jose. This map labels "New Almaden" and the "Arroyo de los Alamitos" and shows a road from "Hacienda" north of the APE west to "Mine Hill."

Whitney's 1873 *Map of the Region Adjacent to the Bay of Bay Francisco* shows no "Indian Mound[s]" in the vicinity of the proposed project. This map shows the rancho

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*source has direct contact with the ore), processes comparatively large amounts in a 24-hour period, and usually operates continuously. Furnaces used at New Almaden were constructed of brick, iron or steel (Schneider 1992:164).*

16. Beneficiation - *The initial process of upgrading ore* (Noble and Spud 1992:29).
17. The 1880 *Plat of the Hacienda, New Almaden exclusive of Casa Grande, north (left) and reduction works, south (right) by Supt. F. Von Leicht* shows and numbers at least 58 buildings in addition to a hotel, shed, dance hall, store, and hay barn (not numbered).

boundaries, the "Arroyo de los Alamitos," Almaden Road (not labeled) to about The Works [see Thompson and West 1876 below] in "New Almaden" with a few structures in Hacienda (not labeled).

Thompson and West's 1876 *Historical Atlas of Santa Clara County* shows and labels a number of features in a 3360.48-acre area owned by "The Quicksilver Mining Company" which included portions of "*Rancho San Vicente*" and adjacent "*Rancho de los Capitancillos*." The rancho boundaries, the "Arroyo de los Alamitos", "New Almaden" and Almaden Road/Alamitos Road (not labeled) with "Hacienda" above "Hacienda School", numerous structures along the road and "The Works" [Furnace Yard], buildings in the vicinity of the Upper Hacienda area. The road to "Peak of Mine Hill" is mapped with three structures on the south side of the road in the vicinity of the Deep Gulch area (Thompson and West 1876:60). In addition, the *Atlas* provides a view northwest illustrating, "The Works and the Mine, New Almaden" which includes the Deep Gulch area, but not the Upper Hacienda or Lower Hacienda areas of the project (op cit.:76-77).

The earliest available USGS topographic map, the 1919 New Almaden Quadrangle surveyed in 1915-1916, shows various structures in "New Almaden" along Almaden Road and buildings in The Works area. By 1915-1916 a railroad spur, part of an incline railroad, had been built between the works area and southeast portion of "Mine Hill" across Deep Gulch to the sorting sheds at Hacienda (e.g., Lanyon and Bulmore 1967:21; Boulland and Boudreault 2006:101). This spur was situated just west of the Deep Gulch area of the project. No structures are shown in/adjacent to the Deep Gulch area. A large mine dump (?)<sup>18</sup> on the west side of Alamitos Creek and Almaden Road appears to have been located partially within the Upper Hacienda area of the project. By 1937, the railroad tracks had been removed along with the dump? and numerous structures along Almaden Road/Alamitos Road. No structures, tailings, etc. are shown in the vicinity of the various project areas. The 1968 and 1980 USGS topographic map shows no structures or features in the vicinity of the Lower Hacienda and Deep Gulch areas. Tailings are shown extending partly into the Upper Hacienda area (e.g., USGS 1919 [surveyed 1915-1916], 1968, 1980; US War Dept 1943 [photography 1937]).

The Santa Clara County Parks and Recreation Department pamphlet shows the Deep Gulch area of the project located along Mine Hill Trail just north of the Deep Gulch Trail. Mine Hill Trail is designated as a multiple use and horse cart trail. No park features are shown in the vicinity of the Upper and Lower Hacienda areas of the project (SCICo/P&R 2009).

## 6.0 ARCHAEOLOGICAL FIELD INVENTORY

Pedestrian field inventories of the project areas were conducted by Stuart A. Guedon (M.A.), Basin Research Associates, on October 12 and November 30, 2009 [see Fig. 3]. The Upper Hacienda, Lower Hacienda and Deep Gulch project areas were surveyed in random transects not exceeding 20 meter intervals in order to accommodate the often steep terrain and vegetation. The Alamitos Creek Crossings # 1 and #3 were surveyed

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18. Roughly circular shaped area printed in brown.

from the north bank in random transects not exceeding 20 meters. Dense brush on the left bank of Alamitos Creek Crossing #3 limited access to mostly above the gabion embankment. Access to the south bank was not possible due to steep terrain and dense vegetation. The Alamitos Creek Bridge area (ACB-1) was surveyed in random transects not exceeding 5 meters and generally parallel with Alamitos Creek.

Local vegetation is riparian woodland that includes oaks, California bay laurels, sycamores and poison oak. The areas noted during the field inventory all appeared to have been disturbed by historic era mining activities.

No prehistoric archaeological material was observed during the survey. Historic features included mine-waste calcine deposits in each of the project areas in addition to several other minor historic features. The field inventory also found historic materials associated with Vichy Spring under the west of Bridge 37C0160 on Almaden Road. The cultural materials included the remnants of a stone wall of basalt cobbles; a milled lumber wall; and, a terra cotta brick-lined well on the slope of Alamitos Creek under the west end of the bridge. Bubbles (natural carbonation) were also observed in Los Alamitos Creek under the west end of the bridge. The wall and the well appear to be associated with the bottling house complex at Vichy Spring in operation from 1867 to 1880/1882. The complex was demolished in 1939.

#### 6.1 UPPER HACIENDA DEPOSIT (UH-1 and UH-2)

The *Upper Hacienda Deposit #1 (UH-1)* and *Deposit #2 (UH-2)* are, with the exception of the existing calcine deposits, devoid of historic structures, features, and/or prehistoric or historic era artifacts, structures, etc.

#### 6.2 LOWER HACIENDA DEPOSIT (LH-1 and LH-2)

The *Lower Hacienda Deposit #1 (LH-1)* includes existing calcine deposits and a portion of rock wall and a wooden post/beam and thick piece of metal cable nearby. The rock wall is approximately 2-3 feet high and 6 feet in length, constructed of irregularly shaped dry laid rocks with a number of loose rocks, likely part of the wall, nearby. The short segment of a post/beam is partly buried; an approximately 1.5 foot wide x over 2.0 foot long portion is exposed. It is possible that these features represent materials formerly associated with a building in the background of an 1863 Carleton E. Watkins photograph of the New Almaden Smelting Works.

The *Lower Hacienda Deposit #2 (LH-2)* includes calcine deposits only.

#### 6.3 DEEP GULCH DEPOSIT (DG-1 and DG-2)

*Deep Gulch Deposit #1 (DG-1)* includes calcine deposits. The remains of a concrete foundation which form a right angle approximately 7.5 x 4 feet in the dirt/gravel road are adjacent to this project area.

*Deep Gulch Deposit #2 (DG-2)* includes calcine deposits and a retort listed as Historic Resource #y44 Retort (see Allen and Crosby 2002) [Figs. 4-7].

The retort consists of a rectangular structure approximately 6.5 feet wide, 8 feet high, and 10 feet wide/deep brick structure set into the hillside around an inset and projecting metal box on top of a finished concrete base. A crude layer of concrete/mortar which appears to follow the contour of and hold the hillside in place is visible at the interface of the brick. The retort is capped along the front with a single row of river cobble. The bricks on the sides of inset metal box are 18-inches and 23-inches respectively. The mortar appears to have been repaired in places. Two parallel, possibly inset sections of two long metal pipes project at an angle over the structure. These pipes are capped at one end (each different) and open at the other and are notably smaller in diameter than the two round 12-inch "retort" openings. In addition, sheets of corrugated metal held in place by short segments of small diameter pipe hold the hillside back at the top rear of the retort. Loose sheets of corrugated metal and a deep iron basin (within a lumber frame held by metal bolts and washers) are present nearby. The construction of the retort uses mostly red brick rather than refractory brick<sup>19</sup> suggesting perhaps another function for this structure or modification not readily apparent in its current condition. The retort, according to Michael Boulland, a locally knowledgeable historian, was built in the 1940s or early 1950s and) was just a small operation (personal communication, November 2009). Mr. Boulland indicated that several of these small retorts were located in the general area at this time.

In addition, Mine Hill Road adjacent to the Deep Gulch area is a historic feature which is currently known as the Mine Hill Trail (e.g., SCICo/P&R 2009).

#### 6.4 ALAMITOS CREEK CROSSINGS (AC-1, AC-2 and AC-3)

The Alamos Creek crossings, AC-1 to AC-3, include calcine deposits but do not have any prehistoric or historic era cultural deposits, historic structures or features present. Alamos Bridge (37C0160) on Almaden Road has been evaluated as category "5," not eligible for listing on the National Register of Historic Places.

#### 6.5 ALAMITOS CREEK BRIDGE (ACB-1 and ACB-2)

The *Alamos Creek Bridge #1* (ACB-1), includes [see Figs. 3, 8-13]:

- calcine deposits [Fig. 9];
- remains of a wood wall (possibly redwood, weathered dressed vertical 1x6 and 1x8 lumber spanning a distance of about 30 feet. Approximately one foot of the lumber was noted as extending out of the creek bank. No horizontal members were observed [Figs. 9-10, 12-13];
- short section of stone wall east of the southern bridge abutment consisting of basalt cobbles (8 feet long, 2 to 3 feet high with about five courses exposed [Fig. 13]. The wall is covered by dense leaf litter and forms a part of the creek bank

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19. "Fire" or "refractory" brick is made from special clays in order to withstand high temperatures. They are usually yellow, tan, beige, buff, salmon, etc. rather than common red brick.



downstream from the existing vehicular bridge. The exposed wall together with the wooden pieces in front of the southern bridge abutment are what local tradition believes to be the remains of the former Vichy Spring water well - a carbonated water which was bottled at the source/location by F. L. A. Pioche and others from 1867 to 1880/1882 (Michael Boulland, local historian, personal communications, November 2009; see discussion below for details) [Fig. 11]. Pioche was a San Francisco banker originally from France and also active in Nevada mining with a town named after him in Lincoln County, Nevada. The wood and stone wall may have been part of a building used in the bottling process. The outside diameter of the well is approximately six feet and the inside diameter approximately four feet. The one foot thick walls allows for two bricks to be laid side by side with mortar in between. Only the top course of brick is partially exposed.<sup>20</sup>

### *Discussion - Vichy Spring Bottling Complex*

The field survey noted materials associated with the former bottling house complex at Vichy Spring now present under the Alamitos Creek Bridge on Almaden Road. Bubbles (natural carbonation) were also observed in Los Alamitos Creek under the west end.

Mineral water from this spring appears to have been initially bottled in 1854<sup>21</sup> as "New Almaden/Mineral Water/W & W" by brothers Thomas and David Williams and partner D.T. Winslow. About 1867<sup>22</sup> they moved their mineral water bottling enterprise to the City of San Jose. In December 1867, Francois L. A. Pioche leased 2.5 acres including Vichy Spring for 10 years from the Quicksilver Mining Company. He appears responsible for the name, "New Almaden Vichy Water," an allusion to the naturally carbonated water obtained from springs at Vichy, France. By 1876<sup>23</sup> he had built a four room wooden-frame bottling plant which included an octagonal<sup>24</sup> well house as illustrated by Thompson and West in *"The Works and the Mine, New Almaden, 1876."*<sup>25</sup> The water was described as an ". . . elixir of life and cure-all" and as a "heavy alkalo-chalybeate, strongly charged with carbonic acid gas." It was extensively advertised and distributed nationally from San Francisco by the California Vichy Water Company. Bottling continued after Pioche committed suicide in May 1872. Production ceased in

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20. No attempt at exposing the well or other features was undertaken by the field archaeologist due to the potential for personal mercury contamination.
  21. Allen and Crosby (2002:5) state the Vichy Spring water was bottled and shipped in 1862.
  22. Note: Some of the W & W bottles New Almaden Mineral Water bottles include the date "1870" (Markota and Markota 1994:78). The Winslow and Williams Soda Factory at 274 St. John Street, San Jose is listed in the 1870 Colahan and Pomeroy *San Jose City Directory and Business Guide of Santa Clara County*. At the time, no soda or mineral water bottling business is listed in New Almaden.
  23. 1867 after Boulland and Boudreault (2006:65), definitely 1876 as illustrated by Thompson and West (1876:76-77). Prior to 1880 after Allen and Crosby (2002:8).
  24. Described as a "gazebo" in the 1999 *Santa Clara County Heritage Resource Inventory*.
  25. The plant appears to conform to Building #59 on Von Leicht's 1880 *Plat of the Hacienda*.

1880/1882<sup>26</sup> due to the loss of carbonation when the 2100 foot level of the Buena Vista Shaft was penetrated.<sup>27</sup> A tentative plan to develop the spring in 1915 was not pursued and in 1939, the Vichy Spring House complex was demolished.

The "old brick-lined well of Vichy Spring" was reportedly destroyed by the construction of the Alamos Bridge (37C160) on Almaden Road in 1966. Nonetheless, remnants of the well remain *in situ* along with the remains of an associated wood wall. Natural carbonation - bubbles - from the spring are visible in the current creek (Thompson and West 1876:76-77; Von Leicht 1880; Lanyon and Bulmore 1967:99; Schneider 1992:141; Caltrans 1993; Allen and Crosby 2002:5, 8, 12/S-29851;<sup>28</sup> Markota and Markota 1994:78-79; Boulland and Boudreault 2006:65; Practically Edible 2009:Vichy Water)

*E. Clampus Vitus* (Mountain Charlie Chapter No. 1850) placed a "VICHY SPRING" plaque on a brick monument on the top of the right bank of Alamos Creek near the existing bridge on October 13, 1979: The plaque states:

*"A SPRING OF CARBONATED WATER, LOCALLY KNOWN AS VICHY, BUBBLED UP HERE BESIDE THE ALAMITOS CREEK. WHEN THE DISTANT BUENA VISTA SHAFT PENETRATED THE 2100 FOOT LEVEL IN 1882, THE SPRING CEASED FLOWING. SAN FRANCISCO BANKER F.L.A. PIOCHE AND OTHERS COMMERCIALY BOTTLED THE WATER AS A CURE-ALL FOR THE SICK AND THIRSTY. WHEN BOTTLED, THE WATER LOST ITS CARBONIZATION AND THE VENTURE ALSO WENT FLAT FINANCIALLY."*  
(Castro 1986:87).

Vichy Springs ". . . on the site of the former New Almaden Mines Reduction Works" at the southwest corner of Almaden Road and Bertram Road, New Almaden is listed separately on the 1999 *Santa Clara County Heritage Resource Inventory* (SCICoHHC 1999:148, APN 583-20-003) and the *City of San Jose Historic Resources Inventory* (SJHLC/PBE 2009).

The *Alamos Creek Bridge #2* (ACB-2) is immediately north of the ACB-1 deposit and contains only calcine deposits. No other cultural materials were present.

## 7.0 RESULTS

The intent of this report is to identify cultural resources that are present and listed, determined or potentially eligible for inclusion on the California Register of Historical Resources (CRHR) that may be impacted by the proposed project.

- The project areas are within the Hacienda Area of the Almaden Quicksilver

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26. 1880 after Allen and Crosby (2002:8); 1882 after the Vichy Spring plaque (Castro 1986:87), Boulland and Boudreault (2006:65), etc.

27. This shaft is/was located northwest of English Town about 1.5 miles northwest of the spring.

28. The available Allen and Crosby report lacks Technical Appendix C-5 which may provide additional information regarding "Vichy Spring."

County Park in Santa Clara County. The Deep Gulch area (2 locations) of the project is located along the Mine Hill Trail. Access to the Upper Hacienda and Lower Hacienda areas is provided by Alamitos Road, an important transportation vector during the mining era onward. The Alamitos Creek Deposits (3 locations) are present along Alamitos Creek. The Alamitos Creek Bridge Deposits (2 locations) are present under the Alamitos Creek Bridge on Alamitos Road and to the immediate north.

- Six (6) compliance reports on file with the CHRIS/NWIC include the three project areas.
- The general project area is considered an area of archaeological sensitivity in Santa Clara County (Garaventa and Guedon 1993; Basin Research Associates 2009).
- No prehistoric and or combined prehistoric/historic era sites have been recorded or reported in or immediately adjacent to the proposed project areas.
- No known ethnographic, traditional or contemporary Native American use areas and/or other features of cultural significance have been identified in or adjacent to the project alignments although the cinnabar ore was considered a valued material by a number of Native American groups.
- No known Hispanic Period expeditions, adobe dwellings, or other structures, features, etc. have been reported in or immediately adjacent to the proposed project areas.
- The project areas are within the boundary defined for CA-SCI-405H (P-43-000411), "New Almaden," which is a National Historic Landmark District<sup>29</sup> (NHL 66000236). The New Almaden Historic District is listed under National Register criterion, "a" and is automatically included on the California Register of Historical Resources (CRHR).
- One recorded American Period resource, Historic Resource #y44, a structure identified as a retort near the Hacienda entrance to the *Deep Gulch* area, is present within the project area [Fig. 3]. It has been identified and evaluated as in fair condition, with medium/high integrity, low accessibility, low/medium interpretive value, and as low priority for treatment (see Allen and Crosby 2002).

The retort may have been built in the 1940s or 1950s and was subsequently used by various persons to treat ore. It continued in use up to the point that New Idria Mining and Chemical Company purchased the property. The last operator was John Tobar. The resource does not appear to have been formally recorded and evaluated for the CRHR.

- No evidence of significant prehistoric archaeological resources was observed during the field surveys conducted within the project areas. The surface has been

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29. National Historic Landmark (NHL) - *a historic property evaluated and found to have significance at the national level and designated as such by the Secretary of the Interior (USNPS/IRD 1991:16A:IV:3).*

extensively disturbed by historic mining activities primarily the deposition of calcine deposits associated with cinnabar reduction to extract mercury.

- The remains of several features associated with the former Vichy Spring water bottling complex operating from 1867 to 1880/1882 were noted during the field inventory of the Alamos Creek Bridge Deposit (ACB-1) under Bridge No. 37C0160 on Almaden Road [Fig. 3]. The features include a stone wall, the remains of a wood wall in the creek bank, and the exposed top of what local tradition believes to be the remains of the former Vichy Spring water well - a carbonated water source.
- No other evidence of historically significant archaeological resources was observed during the field surveys conducted within the project areas. The surface has been extensively disturbed by historic mining.
- No standing buildings or architectural features other than the retort identified as Historic Resource #y44 and the former location of the Vichy Spring water bottling complex are located in or immediately adjacent to the project areas.
- No local, state or federal historically or architecturally significant structures, landmarks, or points of interest have been identified within or adjacent to the project areas except for their location within a listed National Historic Landmark District.

## **8.0 POTENTIAL IMPACTS AND MITIGATION MEASURES**

### **8.1 DEFINITION AND USE OF SIGNIFICANCE CRITERIA**

The thresholds of significance for cultural resource impacts for the project are defined as situations where construction could:

Result in damage to, the disruption of, or adversely affect a property that is listed in the California Register of Historical Resources (CRHR) or a local register of historic resources per Section 5020.1 of the Public Resources Code;

Cause damage to, disrupt, or adversely affect an important prehistoric or historic archaeological resource such that its integrity could be compromised or eligibility for future listing on the CRHR diminished; or,

Cause damage to or diminish the significance of an important historic resource such that its integrity could be compromised or eligibility for future listing on the CRHR diminished.

A significant impact would occur if the project would directly or indirectly disturb any human remains, including those interred outside of formal cemeteries.

Any damage to a cultural resource determined to be “important” based on the criteria outlined above would be considered a significant impact.

## 8.2 POTENTIAL IMPACTS

Removal of the calcine deposits in the project will include both deposit and sediment removal around two historic architectural and archaeological features that could affect the cultural materials:

- ***Deep Gulch Deposit #2*** - Historic Resource #y44 Retort (see Allen and Crosby 2002) [Figs. 3-7]. The estimated three foot thick soil deposit around the retort has been identified as a potential source of mercury. Ground-disturbing removal activities have the highest potential to directly impact this cultural resource by disturbing both surface and subsurface soils.
- ***Alamitos Creek Bridge Deposit*** - remains of several features associated with the former Vichy Spring water bottling complex operating from 1867 to 188/1882 were noted during the field inventory of the Alamitos Creek Bridge Deposit (ACB-1) under Bridge No. 37C0160 on Almaden Road [Figs. 3, 8-13]. The estimated three foot thick soil deposit has been identified as a potential source of mercury. Ground-disturbing removal activities have the highest potential to directly impact this cultural resource by disturbing both surface and subsurface soils.

Surface and subsurface disturbances or calcines removal activities may result in the loss of integrity of cultural deposits, loss of information, and the alteration of a site setting. Potential indirect impacts, primarily vandalism, could result from increased access to and use of the general area during both construction and operation. There is also the potential for inadvertent discoveries of buried archaeological materials during construction.

With the exception of the retort within the Deep Gulch area and the former Vichy Spring water bottling complex within the Alamitos Creek Bridge Deposit (ACB-1), no other potentially significant archaeological or architectural sites or features have been identified in the project as a result of research and/or survey conducted for the proposed project.

## 8.3 PREVIOUS MANAGEMENT RECOMMENDATIONS

The CH2M Hill 2009 *Engineer's Report* recommended evaluation of the historic significance of old retort in the Deep Gulch area prior to removal and "Consultation with Historic District personnel for removal of retort at Deep Gulch" (CH2M Hill 2009a:3-3 and 7-2, #2). The former Vichy Water bottling complex was not included as it was believed destroyed during the construction of the Alamitos Creek Bridge in 1966.

## 8.4 PROPOSED MANAGEMENT RECOMMENDATIONS

Two potentially significant archaeological and/or architectural resources have been identified in the project as a result of research and/or survey conducted for the proposed project. Further investigation and evaluation of the identified resources shall be undertaken during construction to determine and confirm their potential for inclusion on the California Register of Historical Resources (CRHR). These actions will include

additional pre-construction archival research and recordation as well as additional recordation and inspection if the resources may be affected during calcine removal.

#### 8.4A Historic Resource #y44 - Retort

One American Period structure, Historic Resource #y44, identified as a historic retort is present in the Deep Gulch Deposit #2. It has been previously identified and evaluated as in fair condition, with medium/high integrity, low accessibility, low/medium interpretive value, and as low priority for treatment (see Allen and Crosby 2002). However, the resource appears not to have been formally recorded and evaluated for the CRHR. Possible mercury contamination of adjacent soil and the retort structure strongly indicate that removal may be the only viable option to the County. Mitigation actions shall include:

- Development of an appropriate historic context of the resource; record the resource on appropriate DPR 523 forms; and, formally evaluate the resource for the CRHR.
- Pre-construction treatment measures prior to resource removal shall include HABS/HAER large format (4x5) black & white photography; mapping; and compilation of appropriate measured drawings/plans. In addition, archaeological and architectural monitoring including additional HABS/HAER large format photography of its demolition shall be undertaken due to the potential to expose associated subsurface archaeological deposits and/or buried architectural construction features not visible during pre-construction studies.

#### 8.4B Vichy Spring Water – Former Bottling Complex

One American Period archaeological resource, cultural materials associated with the former bottling house complex at Vichy Spring now present under the Alamitos Creek Bridge on Almaden Road, was noted during the field inventory. The materials include a stone wall, the remains of a wood wall in the creek bank, and the exposed top of what local tradition believes to be the remains of the former Vichy Spring water well - a carbonated water source bottled from 1867 to 1880/1882. The former Vichy Water bottling complex was demolished in 1939 and the remainder of the resource was supposedly destroyed during the construction of the Alamitos Creek Bridge in 1966. The stone wall is outside the work area and will not be disturbed, while the remains of a wooden wall and possibly the water well are in an area where calcines must be removed and a riprap slope protection constructed to protect the bridge footings. Possible actions include:

- Development of an appropriate historic context of the resource; record the resource on appropriate DPR 523 forms; and, a professional archaeologist and architectural historian shall formally evaluate the resource for the CRHR.
- Archaeological recordation shall be undertaken of any significant subsurface features exposed during calcine removal. The water well will be preserved in place and will not be affected by the proposed project except for the removal of calcines around the well. There are no plans to remove the existing plug/cap.

The presence of the calcines shall be reviewed to determine the safe extent of any archaeological recordation program.

- Pre-construction treatment measures prior to resource removal of resources associated with the former Vichy Spring within the project area shall include HABS/HAER large format (4x5) black & white photography; mapping; and compilation of appropriate measured drawings/plans. In addition, archaeological and architectural monitoring including additional HABS/HAER large format photography shall be undertaken of any significant associated subsurface archaeological deposits and/or buried architectural construction features not visible during pre-construction..
- Resource protection measures shall include installation of barrier fencing or other appropriate measures to protect the stone wall shall be included in the project construction contract documents.

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### Abbreviations

n.d. no date  
 v.d. various dates  
 N.P. no publisher noted  
 n.p. no place of publisher noted

The abbreviated phrase "CHRIS/NWIC, Sonoma State University, Rohnert Park" is used for material on file at the California Historical Resources Information System, Northwest Information Center, Sonoma State University, Rohnert Park. Note the primary numbers are not included in the citations above.