# COUNTY OF HUMBOLDT
## PLANNING AND BUILDING DEPARTMENT
## CURRENT PLANNING DIVISION

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http://www.co.humboldt.ca.us/planning


Hearing Date: July 13, 2017

To: John H. Ford, Humboldt County Zoning Administrator

From: Steve Werner, Supervising Planner

Subject: **R. Brown Construction Company Conditional Use and Surface Mining Permits Modification and Reclamation Plan Modification**
Application Number 10412
Case Numbers Case Numbers SMP-14-001XM, CUP-14-013XM, RP-14-001XM
Assessor Parcel Number (APN) 316-061-011-000
Willow Creek Area

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Please contact Michael Wheeler, Senior Planner, at (707) 268-3730, or by email at mwheeler@co.humboldt.ca.us, if you have any questions about the scheduled public hearing item.

## AGENDA ITEM TRANSMITTAL

| Hearing Date | Subject | Contact |
|---|---|---|
| July 13, 2017 | Conditional Use Permit, Surface Mining Permit and Reclamation Plan Modification | Michael Wheeler |

**Project Description:** Modification of a recent 15-year renewal of a previously approved Conditional Use Permit for an upland rock quarry surface mining operation. The modification seeks to expand the area of mining operation by adding an additional 39 acres to be mined (in addition to the existing 25 acre mining area). This includes areas that will be mined for rock and areas that will be used for topsoil and overburden storage. The Reclamation Plan is revised to show that the total area to be reclaimed is 64 acres. Rock of various sizes will continue to be mined, with an estimated volume of 4 million tons of hard rock over the life of the mine. Mining and overburden fill have already occurred on approximately 25 acres of the parcel.

**Project Location:** The project site is located in Humboldt County, in the Willow Creek area, on the south side of State Highway 299, approximately 3.1 miles west of the the intersection of State Highway 96 and State Highway 299, in the Northwest quarter of Section 01, Township 06 North Range 04 East.

**Present Plan Land Use Designations:** Timber Production (T), Framework Plan (FRWK), Density:160 to 20 acres per dwelling unit, Slope Stability: Moderate Instability (2) and High Instability (3)

**Present Zoning:** Timberland Production (TPZ)

**Case Numbers:** SMP-14-001XM, CUP-14-013XM, RP-14-001XM

**Assessor Parcel Numbers:** 316-061-011-000

**Applicant**
R. Brown Construction Company
PO Box 406
Willow Creek, CA 95573

**Owner**
Brown Roger D & Nancy A TR
DBA Rock Quarry
PO Bx 406
Willow Creek, CA 95573

**Agent**
None

**Environmental Review:** A Subsequent Mitigated Negative Declaration has been prepared

**State Appeal Status:** Project is NOT appealable to the California Coastal Commission

**Major Issues:** Asbestos and geologic stability

**R. BROWN CONSTRUCTION COMPANY CONDITIONAL USE AND SURFACE MINING PERMITS MODIFICATION AND RECLAMATION PLAN MODIFICATION**

SMP-14-001XM, CUP-14-013XM, RP-14-001XM

Assessor Parcel Number (APN) 316-061-011-000

**Recommended Planning Commission Action:**

1. Describe the application as a Public Hearing;
2. Request staff presents the project;
3. Open the public hearing; and,
4. After receiving testimony, close the hearing and take the following action:

*I move to adopt the Mitigated Negative Declaration and make all of the required findings for approval of the Conditional Use Permit Modification, Surface Mining Permit Modification and Reclamation Plan Modification based on evidence in the staff report, and adopt the Resolution approving the R. Brown Construction Company project subject to the recommended conditions.*

**Executive Summary**: The applicant is proposing modification of a recent 15-year renewal of a previously approved Conditional Use Permit for an upland rock quarry surface mining operation. The modification seeks to expand the area of mining operation by adding an additional 39 acres to be mined (in addition to the existing 25 acre mining area). This includes areas that will be mined for rock and areas that will be used for topsoil and overburden storage. The Reclamation Plan is revised to show that the total area to be reclaimed is 64 acres. Rock of various sizes will continue to be mined, with an estimated volume of 4 million tons of hard rock over the life of the mine. Mining and overburden fill have already occurred on approximately 25 acres of the parcel.

On October 16, 2014 the Zoning Administrator approved renewal of a previously approved surface mining permit to extract a total of 100,000 cubic yards ($yd^3$) of rock and fragmented aggregate material over an anticipated 15-year life from an upland quarry in rural central Humboldt County. This quarry has been operated by the applicant under two previous permits: 1) a Conditional Use Permit and Surface Mining Permit issued by the County of Humboldt (CUP-11-90/SMR-02-90) approved on April 19, 1990 and effective for 10 years; and 2) a Conditional Use Permit, Surface Mining Permit and Reclamation Plan approval issued by the County of Humboldt (CUP-99-06/SMP-99-01/RP-99-01) approved on May 16, 2000 and effective for 15 years. The approved renewal of the Conditional Use Permit and associated Reclamation Plan allows for an additional 15-year mining term at the subject site. The proposed modification if granted will not affect this term.

The operation involves the average annual production of about 5,500 $yd^3$ of quarry materials. Two methods of surface rock removal will be used: 1) mass rock removal from the rockfields, and 2) selective removal of soil and rock generally from forested areas surrounding the rock fields. Equipment to be used includes a loader, cat and excavator. The operation will also involve boulder blasting, and material will be hauled by truck . The haul route consists of a private road entering directly onto State Highway 299. During periods of production, there will be approximately 5 truck trips per day leaving the property and using this highway. This level of traffic activity is minor and is similar to that for other resource-related uses (e.g., timber hauling) in the area.

The quarry is subject to numerous on-going, annual, and terminal mitigation and reclamation measures. These include: set operational hours for blasting, extraction, processing, and hauling; the installation of a stormwater detention and sedimentation basin; following a "business plan" approved by the Public Health Department for the storage and use of hazardous materials such

as fuels, lubricants, and explosives; winterizing the site prior to the onset of the rainy season; and final reclamation of the site at the end of the permit term.

The actual and potential environmental effects of the project, including blasting noise and hazards, traffic dust, noise, and safety concerns, water quality degradation, impacts to sensitve habitat areas, and depreciation in open space aesthetics, have been reviewed by County and referral agency staff.

A Draft Subsequent Mitigated Negative Declaration (MND) was prepared for the modification request to expand the operational area of the quarry. The Draft Supplemental MND has been circulated twice for public and agency comment. Revisions were made in response to comments received on the first circulation, and the document was circulated and posted for public comment again. Comments on the first draft related to geologic stability, possible asbestos rock at the quarry site, and aesthetic (visual) impacts. The applicant's consultant prepared responses to these comments and addressed the issues with additional supporting materials, including a more detailed visual impact analysis, a geological engineers review of stability, and further details on asbestos. After revisions and recirculation of the MND, a second round of comments was received from concerned public, re-iterating concerns with asbestos and geologic stability. Comments on geological stability were submitted by William Verick and the Hoopa Tribe. In response to the asbestos issue, the applicant's consultant had further testing conducted and results reviewed by the North Coast Unified Air Quality Management District, and determined that the asbestos on the site is confined to an area that would not be disturbed by the mining operation. The consultant also discussed the geological stability with Verick and the Hoopa tribe and reported that their concerns had been addressed. The Hoopa tribe submitted a subsequent letter rescinding their previous comments. Planning staff has reviewed the comments submitted by William Verick on geological stability for the recirculated MND and used independent judgement with respect to those issues. The Caltrans slide area that is compared to the project site is over a mile awary, and the Brown Quarry site has been mined for over 25 years with no slide activity. Further, the Brown Quarry Reclamation Plan has been reviewed by a geologist with the Office of Mine Reclamation and found to be acceptable. Additionally, all referral resource agencies that have reviewed the Mitigated Negative Declaration and provided comments have had their issues have been addressed.

Staff supports approval of the application for several reasons: a) the site has historically been used as a quarry; b) the project area is remote and is not anticipated to have any impact on residential uses; and c) potential impacts to resources have been addressed through mitigation and operations restrictions. Based upon the operational and performance standards included in the mining operation and reclamation plan, staff and the referral agencies have concluded that the operation can be conducted in a safe and appropriate manner provided these standards are made conditions of project approval.

**Alternatives:** The following alternatives to the staff recommendation may be considered: 1) The Planning Commission could elect to add or delete conditions of approval; 2) The Planning Commission could deny approval of the requested permits if you are unable to make all of the required findings. Planning Division staff is confident that the required findings can be made based on the submitted evidence and subject to the recommended conditions of approval. Consequently, planning staff does not recommend further consideration of these alternatives.

**RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF HUMBOLDT**
**Resolution Number 17-___**

**MAKES THE REQUIRED FINDINGS FOR CERTIFYING COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND CONDITIONALLY APPROVES THE R. BROWN CONSTRUCTION COMPANY CONDITIONAL USE AND SURFACE MINING PERMIT MODIFICATION APPLICATION AND RECLAMATION PLAN APPROVAL MODIFICATION**
**CASE NUMBERS SMP-14-001XM/CUP-14-013XM/RP-14-001XM**
**ASSESSOR PARCEL NUMBER 316-061-011**

**WHEREAS,** R. Brown Construction Company submitted an application and evidence in support of approving Condional Use and Surface Mining Permit modifications and Reclamation Plan approval modification on the subject property; and

**WHEREAS,** the County Planning Division has reviewed the submitted application and evidence and has referred the application and evidence to involved reviewing agencies for site inspections, comments and recommendations; and

**WHEREAS,** the County Building and Planning Department, Planning Division, has reviewed the submitted application and evidence for conformance with general plan policy, goals and regulations and applicable zoning; and

**WHEREAS,** the project is subject to environmental review pursuant to the California Environmental Quality Act (CEQA); and

**WHEREAS,** a Subsequent Mitigated Negative Declaration was prepared and circulated for 30 day comment and is included in Attachment 4 along with comments and responses to comments; and

**WHEREAS,** Attachment 2 in the Planning Division staff report includes evidence in support of making all of the required findings for approving the proposed Conditional Use and Surface Mining Permits extensions and Reclamation Plan approval extension (Case Numbers SMP-14-001XM/CUP-14-013XM/RP-14-001XM); and

**WHEREAS,** on July 13, 2017 a public hearing was held to receive public testimony on the proposed project.

**NOW, THEREFORE,** be it resolved, determined, and ordered by the Planning Commission that:

1. The project has potential significant effects on the environment, which, with the inclusion of specific mitigation measures, will be rendered less than significant. Accordingly, a Subsequent Mitigated Negative Declaration was prepared pursuant to the CEQA Guidelines; and

2. The Planning Commission adopts the Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program; and

3. The Planning Commission makes the findings in Attachment 2 of the Planning Division staff report for Case Numbers SMP-14-001XM/CUP-14-013XM/RP-14-001XM, based on the submitted evidence; and

4. The Planning Commission approves modification of the Conditional Use and Surface Mining

Permits and Reclamation Plan applied for as recommended and conditioned in Attachment 1 for Case Number: SMP-14-001XM/CUP-14-013XM/RP-14-001XM.

Adopted after review and consideration of all the evidence on July 13, 2017.

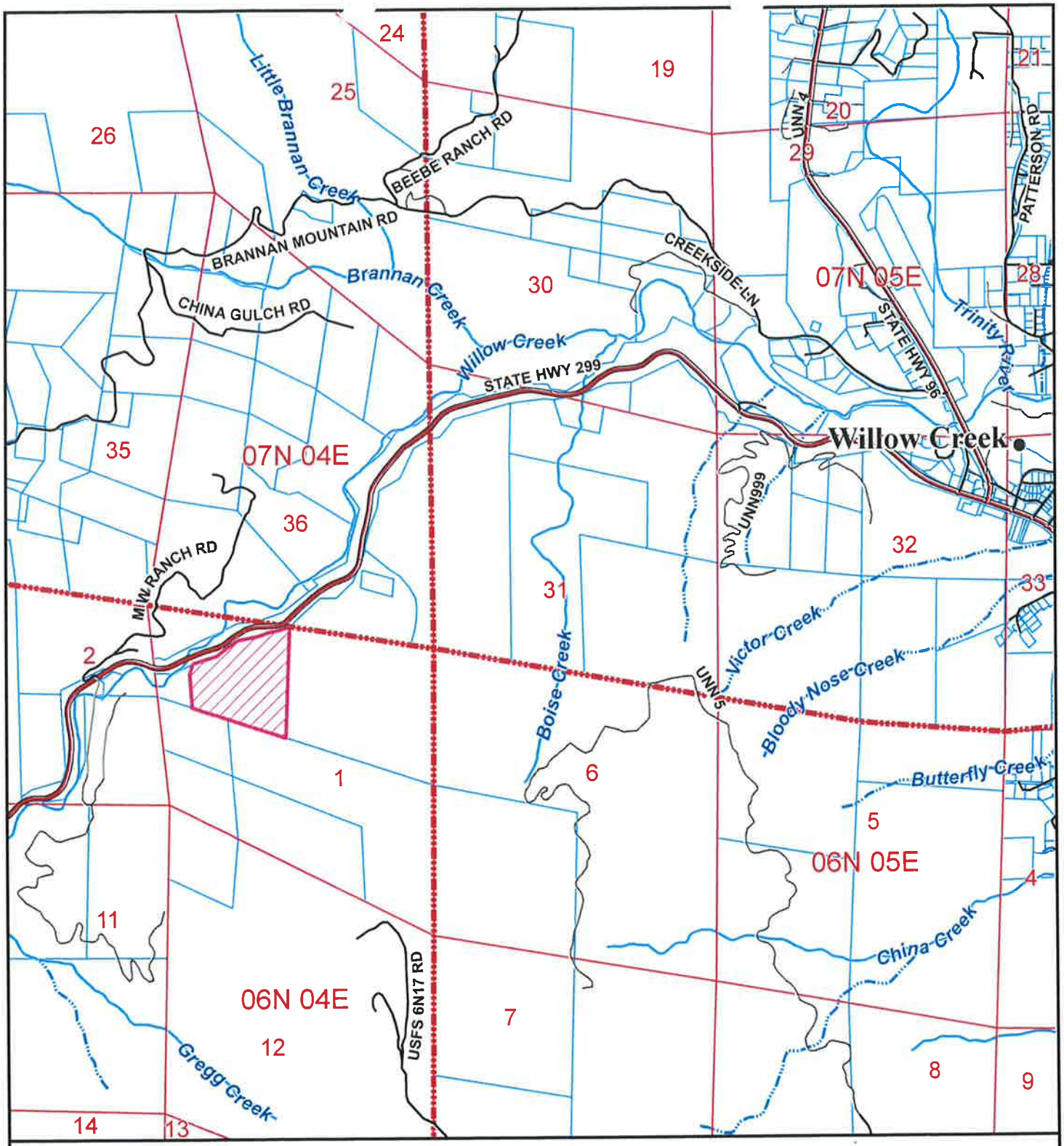
The motion was made by Commissioner _____ and seconded by Commissioner _____.

AYES: Commissioners:
NOES: Commissioners:
ABSTAIN: Commissioners:
ABSENT: Commissioners:
DECISION:

_____
Robert Morris, Chair

I, Suzanne Lippre, Clerk to the Planning Commission of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above entitled matter by said Commission at a meeting held on the date noted above.

_____
Suzanne Lippre, Clerk




## LOCATION MAP

## PROPOSED R. BROWN CONSTRUCTION CO.
## CONDITIONAL USE PERMIT &
## RECLAMATION PLAN MODIFICATION
## WILLOW CREEK AREA
## CUP-14-013XM/RP-14-001XM
## APN: 316-061-011
## T06N R04E S01 HB&M (Willow Creek)

**Project Area =**

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.

N

0 0.25 0.5 Miles


## AERIAL MAP

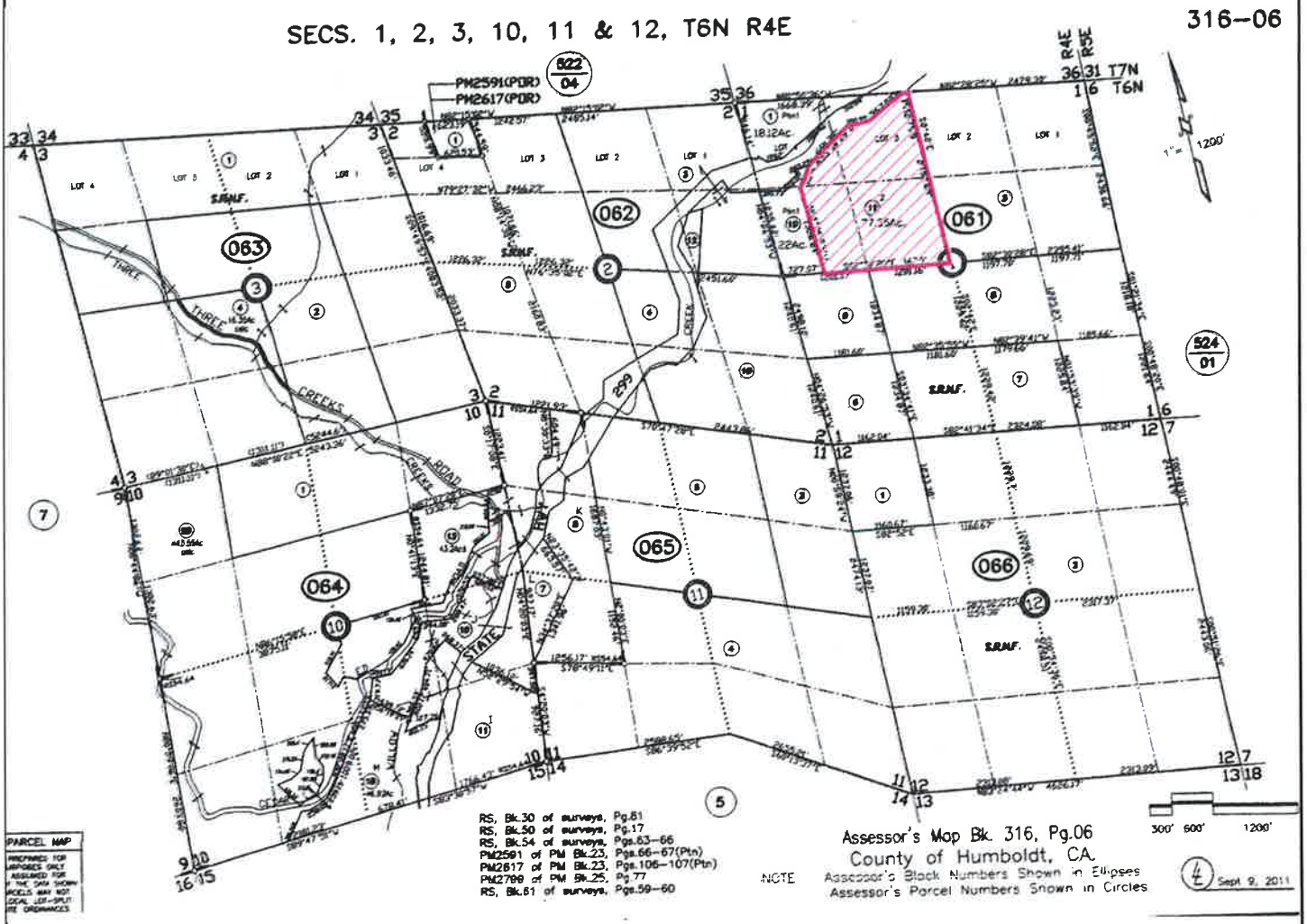
**PROPOSED R. BROWN CONSTRUCTION CO.**
**CONDITIONAL USE PERMIT &**
**RECLAMATION PLAN MODIFICATION**
**WILLOW CREEK AREA**
**CUP-14-013XM/RP-14-001XM**
**APN: 316-061-011**
**T06N R04E S01 HB&M (Willow Creek)**

**Project Area =**

N

0 500 Feet

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.

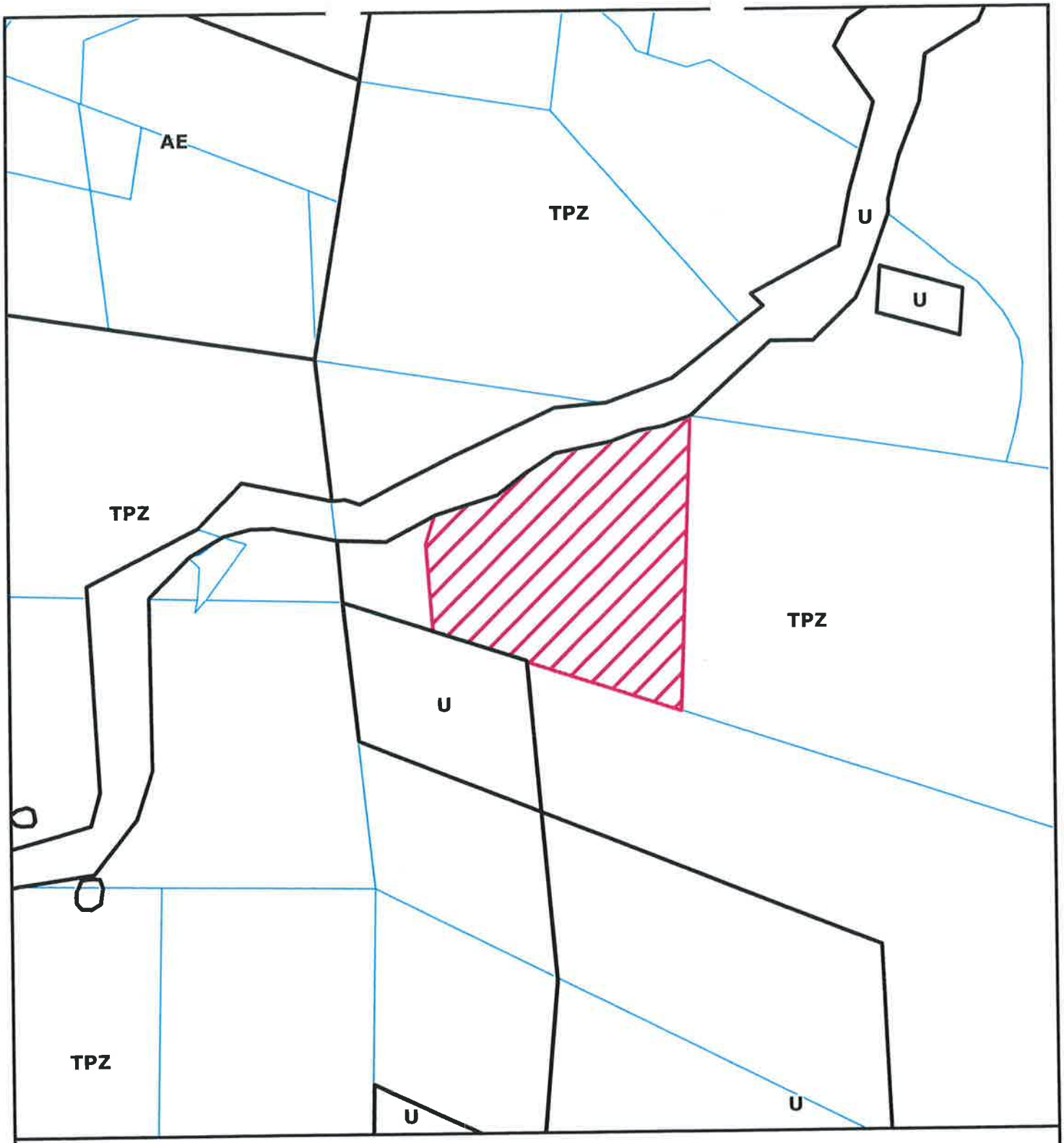



PROJECT SITE =

## ASSESSOR PARCEL MAP

## PROPOSED R. BROWN CONSTRUCTION CO.
## CONDITIONAL USE PERMIT &
## RECLAMATION PLAN MODIFICATION
## WILLOW CREEK AREA
## CUP-14-013XM/RP-14-001XM
## APN: 316-061-011
## T06N R04E S01 HB&M (Willow Creek)

MAP NOT TO SCALE




**ZONING MAP**

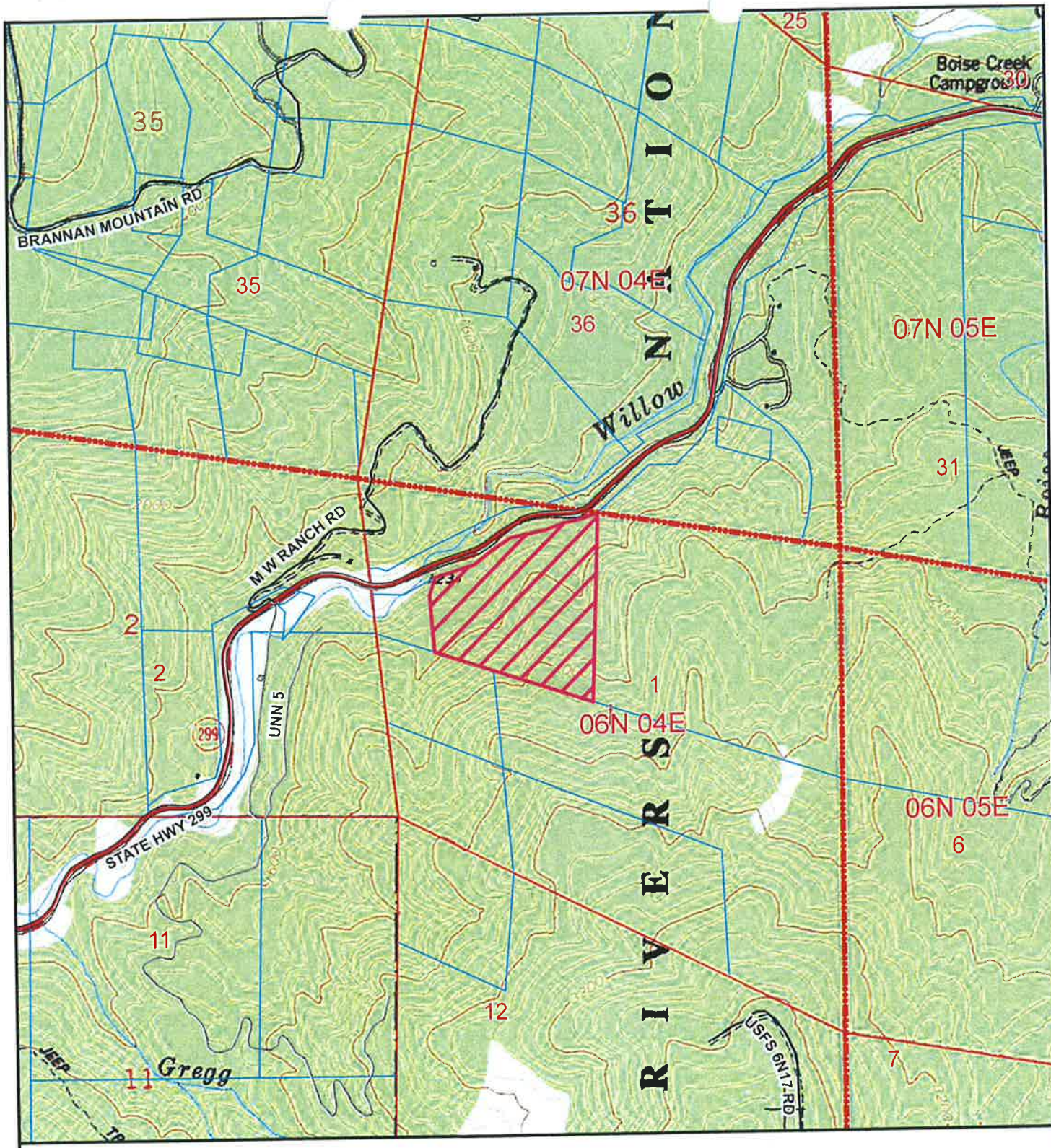
**PROPOSED R. BROWN CONSTRUCTION CO.**
**CONDITIONAL USE PERMIT &**
**RECLAMATION PLAN MODIFICATION**
**WILLOW CREEK AREA**
**CUP-14-013XM/RP-14-001XM**
**APN: 316-061-011**
**T06N R04E S01 HB&M (Willow Creek)**

N

**Project Area =**

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.

0 500 1,000 Feet




**TOPO MAP**

**PROPOSED R. BROWN CONSTRUCTION CO.**
**CONDITIONAL USE PERMIT &**
**RECLAMATION PLAN MODIFICATION**
**WILLOW CREEK AREA**
**CUP-14-013XM/RP-14-001XM**
**APN: 316-061-011**
**T06N R04E S01 HB&M (Willow Creek)**

**Project Area =**

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.

0 0.25 Miles


Major Contour Lines
Existing Contour Lines
Current Permitted Area
Target Buffer Area
Proposed Expansion Area
Reserved Area - No Activity
Single Rock Removal Only
Approximate Parcel Boundary
Feet
0
100
200
400
N
VESTRA
SOURCE: NAIP 2014 AERIAL PHOTOGRAPH
PROPOSED EXPANSION AREA
R. BROWN AND SONS QUARRY
HUMBOLDT COUNTY, CALIFORNIA
P:\GIS\71410\RecPlan\71410_2014_ProposedExpansionArea.mxd

## Attachment 1

## RECOMMENDED CONDITIONS OF APPROVAL

APPROVAL OF THE SURFACE MINING PERMIT, CONDITIONAL USE PERMIT, AND RECLAMATION PLAN IS CONDITIONED ON THE FOLLOWING TERMS AND REQUIREMENTS:

**A. Conditions of Approval:**

1. Financial Assurances to ensure reclamation is performed in accordance with the approved reclamation plan shall be entered into with the County of Humboldt and the State Geologist per PRC Section 2773.1.

2. The applicant shall submit a "wet signed" statement naming the person or persons who accept responsibility for reclaiming the mined lands in accordance with the approved reclamation plan and PRC Section 2772.

3. Prior to hearing, the applicant shall submit a check to the Planning Division payable to the Humboldt County Recorder in the amount of $2,266.25. [Note: In order to comply with the time limits for filing the Notice of Determination per CEQA, this payment will be requested from the applicant prior to hearing and will be held by the Planning Division pending a decision on the permit.] Pursuant to Section 711.4 of the Fish and Wildlife Code, the amount includes the Department of Fish and Wildlife (DFW) fee plus a $50 document handling fee. This fee is effective through December 31, 2017 at such time the fee will be adjusted pursuant to Section 713 of the Fish and Wildlife Code. Alternatively, the applicant may contact DFW by phone at (916) 651-0603 or through the DFW website at www.dfg.ca.gov for a determination stating the project will have *no effect* on fish and wildlife. If DFW concurs, a form will be provided exempting the project from the $2,216.25 fee payment requirement. In this instance, only a copy of the DFW form and the $50.00 handling fee is required.

4. The applicant shall reimburse the Planning Division for any processing costs that exceed the application deposit.

5. Pursuant to the California Code of Regulations Section 3697, the owner or operator of a newly-permitted operation shall submit an initial report and reporting fee to the Department of Conservation (DOC) after permit approval. The DOC has developed the New Mining Operation Report form, please contact DOC at (916) 323-9198 to obtain a form. The condition shall be satisfied by submitting to the County the completed yellow Lead Agency copy of the New Mining Operation Report form.

6. The applicant shall submit a written letter to the Planning Division from the California Department of Fish and Game stating either that their current Fish and Game Code Section §1600 agreement extends to the project or that such an agreement has been approved specifically for the quarry project.

7. The General Plan User Fee of $650 for Industrial Development must be paid to the Humboldt County Planning and Building Department.

8. The applicant shall abide by all of the mitigation measures contained in the previously adopted Mitigated Negative Declaration.

**B. Operation Restrictions:**

1. The mining operator shall adhere to the approved reclamation plan and mitigation monitoring program, as apply to the mining extraction site proper, and other support and ancilliary uses and facilities (i.e., stockpiles, and the maintenance of access road drainage culverts). The reclamation plan shall be reviewed annually by the operator and county staff to assure that any required reclamation is completed and is in compliance with the approved reclamation plan. Any substantial changes to the reclamation plan, including changes necessitated or required by changes in the riverine environment, may require review by the Division of Mines & Geology, Reclamation Program, and approval by the County.

2. The applicants/operators shall abide at all times to the Humboldt County Surface Mining Regulations, and any revisions thereto, and the State Surface Mining and Reclamation Act, and any revisions thereto.

3. The terms of this conditional use permit and reclamation plan shall be the maximum allowed under current regulations, therefore, fifteen years from the effective date. The applicant may renew the use permit and/or reclamation plan, if allowed under current state and county regulations, by submitting appropriate forms and fees in effect at the time of renewal.

4. The operator shall be responsible for submitting to the State Geologist, on forms provided by the State Geologist, an annual report per PRC Section 2207.

5. Hauling along public roads shall be limited to "legal loads" only. "Overweight loads" must have prior approval from the Department of Public Works and/or CalTrans.

6. Any and all portable toilet facilities shall be adequately maintained by a licensed septic tank pumper to the satisfaction of the County Department of Environmental Health.

7. Blasting, shall only be conducted between the hours of 8:00 am and 5:00 pm Monday through Friday. Extraction, drilling, *and processing* operations shall only be conducted between the hours of 6:00 am and 6 pm Monday through Saturday. Quarry operations shall not be conducted on federal holidays. *The hours and days of operation for loading and hauling of processed material shall not be restricted.*

8. Mining operations are a source of potential fire hazard from vehicles and heavy equipment operations. Accordingly, the project is conditioned to follow established guidelines and requirements for such industrial activities (e.g., use of spark arresters on vehicles, on-site availability of fire suppression water supply and fire fighting tools).

9. The applicant shall monitor the sedimentation basins to ensure they are functioning properly, and shall take corrective action as appropriate in accordance with the Mitigation/Monitioring Plan Item 2.

**C. Informational Notes:**

1. Surface mining operations are regulated by various different state and federal agencies. Each of these agencies is responsible for regulating a specific aspect of the mining operation. For example, the Department of Fish and Game is responsible for assuring that fish and wildlife resources are not negatively impacted by a surface mining operation; the Army Corps of Engineers is responsible for regulating discharges into navigable waters of the United States; the Regional Water Control Board oversees waste discharge

requirements; CalTrans assures that no State bridges or highways are negatively affected by mining operations, and; the State Lands Commission regulates activities on lands within the public trust. Other agencies which may have jurisdiction over a surface mining operation include but are not limited to, California Department of Conservation, Division of Mines & Geology; Northcoast Air Quality Management District; California Coastal Commission; National Marine Fisheries; United States Fish & Wildlife Service, and ; CalOSHA.

The operator is responsible for contacting all of the above regulating agencies to assure conformance by the surface mining operation with these agencies regulations.

2. The Financial Assurance shall be subject to annual review and adjustments to account for: a) changes in the costs of reclamation due to inflation; b) lands reclaimed in the previous year and not involving future reclamation; and c) additional lands requiring reclamation in the next year.

3. Building permits are required for all equipment structural pads/foundation buildings, and all structural concrete work (i.e. scales) that are not pre-existing.

4. The North Coast Unified Air Quality Management District has advised that the operation of an aggregate procesor on site may require a District permit. The permit, if needed, will contain conditions sufficient to ensure that no significant effects to air quality. Also, the reclamation plan makes reference to locally sheared serpentine and clast rocks. The applicant is advised that if they intend to sell, offer for sale, supply, use or apply serpentine material for surfacing purposes (to cover surfaces used for pedestrian, vehicular or non vehicular travel), the provisions of District Regulation 3 - Section 6 will apply. Further information about the Airborne Toxic Control Mesure for Asbestos-Containing Serpentine Rock is available from District staff. For purposes of these comments, serpentine is defined as any form of hydrous magnesium silicate materials - including, but not limited to, antigorite, lizardite, and chrysotile.

**ATTACHMENT 2**
**STAFF ANALYSIS OF THE EVIDENCE SUPPORTING THE REQUIRED FINDINGS**

**REQUIRED FINDINGS**

To approve the project, the Planning Commission must determine that the applicants have submitted evidence in support of making **all** of the following required findings:

## 1. CONDITIONAL USE PERMITS

Title III, Division 1, Section 317-36 of the Humboldt County Code (H.C.C.) specifies the findings that must be made to approve the Use Permit. Basically, the Hearing Officer may grant the Use Permit, if, on the basis of the application, investigation and submitted evidence, the following findings are made:

A. The proposed development is in conformance with the County General Plan;

B. The proposed development is consistent with the purposes of the existing zone in which the site is located;

C. The proposed development conforms with all applicable standards and requirements of these regulations; and

D. The proposed development and conditions under which it may be operated or maintained will not be detrimental to the public health, safety, or welfare.

## 2. SURFACE MINING RECLAMATION PLANS

The Surface Mining and Reclamation Act (SMARA), as codified in the California Public Resources Code (PRC) commencing at Section 2700, and as locally implemented in HCC Sections 391 *et seq.* and A316-36 *et seq.* establish the administrative basis for the regulation of surface mining and reclamation activities. In addition to findings associated with the review of the mineral extraction activities undertaken in the use permit process, specific criteria for reclamation plans over seeing the rehabilitation and closure of the mining site apply. Generally, reclamation plans must be: a) applicable to a specific piece of property or properties; b) based upon the character of the surrounding area and such characteristics of the property as type of overburden, soil stability, topography, geology, climate, stream characteristics, and principal mineral commodities; and c) establish site-specific criteria for evaluating compliance with the approved reclamation plan, including topography, revegetation, and sediment and erosion control. In addition:

A. The reclamation plan shall meet the form and content requirements of state law and local ordinance.

## 3. FINANCIAL ASSURANCES

In addition to the specific techniques and methods to be used to reclaim the mining site, either annually or at the end of the permitted extraction period, mining concerns must demonstrate

the financial ability to carry out the reclamation plan. PRC §2770, §2773.1, related administrative guidelines of the Department of Conservation's State Mining and Geology Board (California Code of Regulations §§ 3800 - 3806.2), and local implemental ordinances direct the lead agency to require that the financial assurance:

A. Comply with the established form, term, and monetary adequacy requirements, as periodically reviewed, to assure the reclamation will be completed should default by the responsible party occur.

## 4. ENVIRONMENTAL REVIEW

Pursuant to the California Environmental Quality Act (CEQA) as codified in Public Resources Code (PRC) §21000 *et seq.* and California Code of Regulations (CCR) §15000 *et seq.*, one of the following findings must be made prior to the approval of any development subject to CEQA:

A. The project is categorically or statutorially exempted; or

B. There is no substantial evidence that the project will have a significant effect on the environment and a Negative Declaration has been prepared; or

C. The project has had an Environmental Impact Report (EIR) prepared and all significant environmental effects have been eliminated or substantially lessened, or the required findings in CCR §15091 (statement of overriding considerations) have been made.

## 5. Housing Element Residential Density

The proposed development does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law (the mid-point of the density range specified in the plan designation), unless the following written findings are made supported by substantial evidence: 1) the reduction is consistent with the adopted general plan including the housing element; and 2) the remaining sites identified in the housing element are adequate to accommodate the County share of the regional housing need; and 3) the property contains insurmountable physical or environmental limitations and clustering of residential units on the developable portions of the site has been maximized.

## STAFF ANALYSIS

### 1. CONDITIONAL USE PERMITS

A. General Plan Conformance

The following table identifies the evidence which supports finding that the prposes surface mining operation is in conformance with all applicable policies and standrads in Chapters 2-4 of the Humboldt County Framework General Plan (HCFGP).

| *Plan Section* | *Policy / Requirement Summary* | *Supporting Evidence* |
|---|---|---|
| HCFGP §2510 Timberlands | Policies and standards intending to establish, protect, retain, and preserve timber production areas from incompatible uses or conversion to non-timber uses. | Policies relate directly to TPZ qualification, encouraging their long-term management, supporting improvement programs, examining potentially conflicting placement of public improvements. No overt discussion of compatible uses, such as surface mining. |
| HCFGP §2520 Agricultural Lands | Policies and standards intending to establish, protect, retain, and preserve agricultural production areas from incompatible uses or conversion to non-agricultural uses. | Policies relate directly to encouraging long-term management and improvement programs, supporting in-fill development, and preventing overt or functional conversion of prime agricultural areas through annexations to municipalities, rezoning to non-agricultural designations, subdivision to small parcel sizes, limiting conversions to non-feasible lands. No overt discussion of compatible uses, such as surface mining. |
| HCFGP §2530 Mineral and Energy Resources | Numerous policies and standards recognizing the importance of mining and energy production to local & regional economy, and setting criteria and restrictions to ensure health, safety, and general welfare of persons, property and public resources. | Many of these policies and standards have been incorporated into the implementing Surface Mining Ordinance as performance standards required of all mining activities. The project will be beneficial in the sense of ensuring a continued supply of quarry rock material, an important commodity for the local and regional economy. |
| HCFGP §2553.5 Remote Rural Development | All development should be designed to minimize erosion and sedimentation. | Project specfically includes sedimentation ponding and other features to capture, filter and contain site runoff and minimize erosion. |
| HCFGP §3210 Geologic Hazards | Development should be sited and designed to avoid and minimize the exposure of persons and property to hazards associated with seismic shaking, highly erosive, soils, and unstable topography. | The mining operation is required to comply with guidelines and requirements established by the California Occupational Health and Safety Administartion. |
| HCFGP §3220 | Development should be sited | The project site is not subject to water- |

| *Plan Section* | *Policy / Requirement Summary* | *Supporting Evidence* |
|---|---|---|
| Flood Hazards | and designed to avoid and minimize the exposure of persons and property to hazards associated with river and coastal flooding, and inundation due to dam failure. | related hazards. |
| HCFGP §3230 Wildfire Hazards | Development should be sited and designed to avoid and minimize the exposure of persons and property to wildfire hazards or conversely, to prevent risks of fire in timberlands and other resources areas from rural residential development. | Generally not applicable as the project entails no permanent rural area development. However, mining operations are a source of potential fire hazard from vehicles and heavy equipment operations. Accordingly, the project is conditioned to follow established guidelines and requirements for such industrial activities (e.g., use of spark arresters on vehicles, on-site availability of fire suppression water supply and fire fighting tools). |
| HCFGP §3240 Noise | Identifies compatible, conditional, and incompatible noise levels for various land uses | Use determined to be compatible with ≤60 Ldn noise level at property line of project site; no residences subject to unacceptable levels. |
| HCFGP §3420 Sensitive and Critical Habitats | Identifies, sets use limitations and describes protective measures for environmentally sensitive habitat areas. | Consultation with trustee agencies (CDFG, CDF) revealed no senstive or critical habitats located on or near project site. |
| HCFGP §4200 Circulation | Establishes plicies and standards for planning, development, maintenance and use of roads, ports, rail, airport drainage, and utility facilities. | Hauling of mined materials limited to "legal loads" as defined in Vehicle and Streets & Highways Codes. |

B. Zoning Consistency

The following table identifies the evidence which supports findings that the proposed surface mining operation is consistent with all applicable requirements and standards of the County Zoning Regulations.

| *Zoning Section* | *Requirement Summary* | *Supporting Evidence* |
|---|---|---|
| HCC §314-11 Uses Compat-ible With Timber Production | Enumerated examples of uses determined compatible/conditionally permissible. | Though "surface mining" is not expressly listed, HCC 391-1 (Surface Mining Ordinance) recognizes use as conditionally permitable in all zoning districts. |
| HCC §314-12(c) TPZ Minimum Parcel Size | 160 acres, or 40 acres w/ JTMP | The project does not entail land division. |
| HCC §314-12(e)(1) TPZ Mini-mum Front Yard | 20 ft. (TPZ) | Project does not entail placement of permanent structures subject to setback |

| *Zoning Section* | *Requirement Summary* | *Supporting Evidence* |
|---|---|---|
| | | criteria. |
| HCC §314-12(e)(3) TPZ Minimum Rear Yard | 30 ft. (TPZ); | Project does not entail placement of permanent structures subject to setback criteria. |
| HCC §314-12(e)(2) TPZ Minimum Side Yard | 30 ft. | Project does not entail placement of permanent structures subject to setback criteria. |
| HCC §314-12(e)(4) Flaglot Setbacks | As required by the Planning Director in consultation with Public Works | Project does not entail placement of permanent structures subject to setback criteria. |
| HCC §314-12 TPZ Special Residential Restrictions | • No greater density that 1 d.u. / 20 ac.<br>• No SDUs on parcels <40 ac.<br>• Homesites and improvements not to exceed 2 ac. | Project does not entail residential development subject to density limitations, preclusion of second units, or limitations on the extent of homesites. |

C. Development Requirements and Standards

Notwithstanding the requirement for a Conditional Use Permit for the removal of natural material for commercial purposes for inland areas, and compliance with the development standards of the base and combining zones, general regulations applicable to all zones, several zones and special areas as listed apply to the project. These regulations are contained in the County's Mining Ordinance (HCC §391-1 *et seq.*) and Coastal Zoning Regulations (§314-36 *et seq.*) and require that:

- The proposed surface mining operation incorporates adequate measures to mitigate the probable or known significant environmental effects caused by the proposed operation.

- The proposed surface mining operation and use is properly located in accordance with the General Plan and any relevant element thereof, to the community as a whole, and to other land uses in the vicinity.

These findings are largely incorporated within existing plan conformance findings for Conditional Use Permits and as directed under CEQA.

In addition to the above approval criteria, HCC §391-10 establishes mining permit standards above and beyond that minimally required under SMARA. These standards include:

- All private encroachments leading to a surface mining operation shall be adequately surfaced to prevent aggregate or other materials from being drawn into the public way.

- All haul roads and driveways shall be maintained as necessary to minimize the emission of dust and prevent the creation of a nuisance to adjacent properties.

- Any water discharges from the mined lands shall meet all applicable water quality standards of the Regional Water Quality Control Board and other agencies with authority over such discharges.

- Adequate measures shall be taken to assure the prevention of erosion from mined lands and adjacent properties during the life of the operation. The reclamation plan shall insure the prevention of erosion subsequent to surface mining operations.

- Unless specifically authorized for the purposes of environmental enhancement by the California Department of Fish and Game (and the U.S. Army Corps of Engineers, if necessary), grades and land forms in mined lands shall be maintained in such a manner so as to avoid accumulations of water that will serve as breeding areas for mosquitoes or sites for fish entrapment.

- Excavations which could affect groundwater shall not substantially reduce the quality or quantity of groundwater available in the area surrounding the mined lands.

- Surface mining operations in areas where other agencies have regulatory jurisdiction shall be operated so as to comply with all applicable rules and regulations.

Based on information contained in the application and environmental documentation, the project has been designed or is being conditioned to assure compliance with these standards.

D. Public Health, Safety, and Welfare

***Responses From Other Agencies***

Humboldt County Building Inspection Division: " Recommend approval."

Humboldt County Environmental Health Department: "Recommend approval." of extension; did not comment on modification.

Humboldt County Department of Public Works, Land Use Division: "Conditional approval."

California Department of Forestry and Fire Protection: Standard conditions. A Timberland Conversion Permit is Required.

California Department of Fish and Game: No comments submitted.

California Office of Mine Reclamation. CCR Section 3502(d) requires an amended reclamation plan in the event of a substantial deviation from the approved plan. Applicant amended rec plan .

National Marine Fisheries Service (NMFS): NMFS did not provide any written comments to the referral.

Regional Water Quality Control Board (RWQCB): RWQCB did not provide any written comments to the referral.

North Coast Unified Air Quality Management District (NCUAQMD): NCUAQMD provided comment on the MND and responsded to an asbestos management plan.

Sonoma State University, Northwest Information Center: In response to the 2000 project review, NWIC indicated that there is a low possibility of historical resources; further study is not recommended.

Based on information submitted by the applicant, contained in the environmental documents, and referrals from all jurisdictional agencies and interested parties at present, staff believes that the project as conditioned will not cause significant environmental effects nor be detrimental to the public health, safety or welfare.

The Mitigated Negative Declaration prepared by the Planning and Building Department evaluated the project for any adverse effects on fish and wildlife resources. Based on information in the application, and a review of relevant references in the Department, staff has determined that, provided the mitigation measures identified in the Negative Declaration are required as operating conditions, no adverse effects on fish and wildlife resources or the habitat upon which wildlife depends will result.

## 2. SURFACE MINING RECLAMATION PLANS

Public Resources Code (PRC) Sections 2772, 2773 and 2774 specifies the information and documents required for all reclamation plans. The required information and documents are as follows:

A. The name and address of the operator and the names and addresses of any persons designated by him as his agent for the service of process; and

B. The names and addresses of the owners of all surface and mineral interests of such lands; and

C. The anticipated quantity and type of minerals for which the surface mining operation is to be conducted; and

D. The proposed dates for the initiation and termination of such operation; and

E. The maximum anticipated depth of the surface mining operation; and

F. The size and legal description of the lands that will be affected by such operation,

G. A map that includes the boundaries and topographic detail of such lands, the location of all streams, roads, railroads, and utility facilities within, or adjacent to, such lands, the location of all proposed access roads to be constructed in conducting such operation,

H. A description of the general geology of the area, a detailed description of the geology of the area in which surface mining is to be conducted,

I. A description of and plan for the type of surface mining to be employed and a time schedule that will provide for the completion of surface mining on each segment of the mined lands so that reclamation can be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation; and

J. A description of the proposed use or potential uses of the land after reclamation and evidence that all owners of a possessory interest in the land have been notified of the proposed use or potential uses; and

K. A description of the manner in which contaminants will be controlled, and mining waste will be disposed; and

L. A description of the manner in which rehabilitation of affected streambed channels and streambanks to a condition minimizing erosion and sedimentation will occur; and

M. An assessment of the effect of implementation on the reclamation plan on future mining in the area; and

N. A statement that the person submitting the plan accepts responsibility for reclaiming the mined lands in accordance with the reclamation plan; and

O. A cost estimate prepared by a qualified individual for financial assurances to ensure reclamation is performed in accordance with the reclamation plan.

P. The comments made by reviewing agencies and lead agency responses thereto.

SMARA does not require a revised reclamation plan in the case of a mine permit renewal. CCR Section 3502(d) requires an amended reclamation plan in the event of a substantial deviation from the approved plan. OMR would support a lead agency determination that a permit renewal in itself does not constitute a substantial deviation. The applicant is not proposing any changes to the previously approved mining plan and reclamation plan other than extending the term of the approval. Humboldt County, as lead agency, determines that this does not represent a substantial deviation from the approved plan and that the approved plan remains applicable to the project. Conformance of the previously approved reclamation plan to the reclamation plan standards is shown below.

The full contents to satisfy required findings A. through P. are found in the Reclamation Plan for the original permit (RP-98-01) and the Amendment to the Reclamation Plan submitted for this project modification. The amendments to support the modification (expansion area) are summarized and cited in the following schedule:

A. Name and Address of Operator and Agent

Reclamation Plan, p. 2.:

| **APPLICANT** | **OWNER(S)** | **AGENT** |
|---|---|---|
| Roger D. Brown | R. Brown Construction Co. | Wendy Johnston |
| PO Box 406 | same | Vestra Resources |
| Willow Creek, CA 95573 | | 5300 Aviation Drive |
| phone: 530-629-3702 | | Redding, CA 96002 |
| fax: 530-629-2863 | | 530-223-2585 |

B. Owners of Surface and Mineral Interests of Expansion Area

Reclamation Plan, p. 1:

Roger Brown holds the ownership and mineral rights to all areas involving the proposed expansion area for extraction, processing and reclamation.

C. Quantity and Type of Minerals

Quantity of Extraction: Reclamation Plan p. 3:

25,000 cubic yards/year for 2000 to 2005.

Type of Minerals: Reclamation Plan p. 3:
Quarry-run rock; large boulders to gravel-sized aggregate.

D. Dates for the Initiation and Termination

Reclamation Plan:

As provided for in the Surface Mining Ordinance, a 15-year permit term, subject to future extensions.

E. Depth of Operation

Reclamation Plan p. 2:
As stated in the proposed extraction standards, general depth of extraction varies from 25 to 35 feet. Maximum depth at an elevation of 1450 feet above mean sea level.

F. Size and Legal Description

Size: Reclamation Plan p. 2:
Approximately 39.0 acres overall will be distrubed, within a 80 acre timberland tract.

Legal Description: Reclamation Plan Attachment 10 (Grant Deed and legal description)
The proposed project site is located on APN 316-061-11.

G. Map

Reclamation Plan Figures 1 through 16:
General location, site maps, and monitoring cross-section elevations within the project areas.

H. Geology

Reclamation Plan p. 6:
The site is located within the Rattlesnake Creek Plate (geological unit) of the structurally complex Klamath Mountains terrain. This plate consists of, in order of decreasing abundance, fine-grained mafic to intermediate igneous rocks, fine to medium-grained graywacke, chert, siliceous argillite, serpentine and some intrusive rocks. The volcanic rocks are mostly greenstone and fine-grained clastic rock. Metamorphic foliation in the greenstone is weak. Sizable outcrops of greenstone occur in the Brush Mountain area, south of the proposed rock pit area.

I. Type of Surface Mining and Time Schedule

Reclamation Plan p. 2a:
Proposed mining method is an open pit mine, involving two methods of surface rock removal: 1) mass rock removal from the rockfields, and 2) selective removal of soil and

rock generally from forested areas surrounding the rockfields. Equipment to be used includes a loader, crawler, cat and excavator. Material will be hauled by trucks.

J. Proposed Use or Potential Uses of the Land After Reclamation

Reclamation Plan Page 3:
Future and present uses other than surface mining include revegetaion with native species with eventual return to forested land, and possible residential use with two homesites.

K. Mining Waste

Reclamation Plan p. 14a:
There will be no mine "waste", all materials excavated will be removed or utilized for reclamation. Any contaminants incidental will be very minimal and controlled pursuant to State laws.

L. Rehabilitation of Streambeds

Not applicable.

M. Future Mining

Reclamation Plan p. 3:
Proposed reclamation activities will not preclude future mining activities. Unlike gravel extraction from river bars, annual replenishment from bedload materials transported during inundation periods is not an issue with this type of mining operation.

N. A Statement of Responsibility

Page 27:

The proposed Statement of Responsibility follows County accepted form and content for such acknowledgments.

O. Cost Estimate

Reclamation Plan Appendix F:
Total for engineering, construction and earthwork in the project areas is $16,859.

P. Responses to Comments on the Amendment to the Reclamation Plan

The Reclamation Plan was circulated concurrently with the Initial Study and Proposed Negative Declaration for the permit modification for a period of 30 days through the State Clearinghouse (Governor's Office of Planning and Research). State agencies to which the project was referred had comments on the Reclamation Plan as noted above in section 1.D. During local government referral, commenting letters were received from the the California Division of Forestry and Fire Protection, the Regional Water Quality Control Board, the North Coast Aiar Quality Management District, and the Office of Mine

Reclamation. These comments have been used to revise the Reclamation Plan and prepare conditions of approval and mitigation measures.

## 3. FINANCIAL ASSURANCES

PRC §2770, §2773.1 and related administrative guidelines of the Department of Conservation's State Mining and Geology Board (California Code of Regulations §§ 3800 - 3806.2) direct the lead agency to require that the financial assurance:

A. Take the form of either surety bonds, irrevocable letter of credit, trust funds, certificates of deposit, or other mechanisms specified by the State Mining and Geology Board.

B. Remain in effect for the duration of the surface mining operation and any additional period until reclamation is completed.

C. For any one year are annually adjusted to account for new lands disturbed by surface mining operations, reclamation pursuant thereto, areas previously reclaimed, and inflation.

D. Are determined to be adequate for the purposes of performing the reclamation in accordance with the approved reclamation plan.

E. Made payable to the lead agency and the Department of Conservation.

### A. Form of Assurances

The proposed form of financial assurances for the 1999-2000 extraction seasons has not been indicated at this time. As part of the ongoing administration of the reclamation plan, staff shall ensure that the form of financial assurances is one authorized by the State Mining and Geology Board, and consistent with County practices and procedures.

### B. Duration of Assurances

As part of the ongoing administration of the reclamation plan, the period of the assurances shall be set to correspond to the overall 15 year period for extraction, taking into account annual reclamation costs.

### C. Annual Adjustments

As part of the ongoing administration of the reclamation plan, the amount of individual year financial assurances shall be reviewed and adjusted to correspond to changes in quantity prescriptions, past reclamation activities, and inflationary costs associated with reclamation labor, equipment and materials.

### D. Adequacy of Assurances

Based upon the submitted cost estimates (as prepared by the applicant's agent on the basis from standard time and material construction costs), adequate projection of required reclamation expenses has been performed.

E. Designated Payee

As part of the ongoing administration of the reclamation plan, the Planning Division shall ensure that the financial assurances are designated as payable to the "County of Humboldt" and "State Mining and Geology Board", pursuant to SMARA.

## 4. ENVIRONMENTAL REVIEW

☐ The project is Statutorially or Categorically Exempt pursuant to CCR §_____; or

☐ See attached "Negative Declaration", or

☑ See attached " Mitigated Negative Declaration", or

☐ See attached "Environmental Impact Report.

## 5. Housing Element Densities

| | |
|---|---|
| 314-17.1.5 and 322-3.1 Housing Element Densities<br>The proposed development does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law (the mid point of the density range specified in the plan designation), except where: 1) the reduction is consistent with the adopted general plan including the housing element; and 2) the remaining sites identified in the housing element are adequate to accommodate the County share of the regional housing need; and 3) the property contains insurmountable physical or environmental limitations and clustering of residential units on the developable portions of the site has been maximized. | The project is an existing rock quarry surface mining operation and does not impact or propose any residential development. As such the parcel was not utilized by the Department of Housing and Community Development in determining the County's compliance with housing element law. |

## Attachment 3

## Applicant's Evidence in Support of the Required Findings

## Mining and Reclamation Plan Amendment for Proposed Expansion

**Attachment 4**

**Recirculated Mitigated Negative Declaration**

**Comments and Responses to Comments on the First Draft Mitigated Negative Declaration**

## Attachment 5

## Comments on the Recirculation Mitigated Negative Declaration

## Additional Applicant Materials Submitted in Response to Comments

STATE OF CALIFORNIA

# GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

March 8, 2017



Michael E. Wheeler
Humboldt County
3015 H Street
Eureka, CA 95501

Subject: Brown Rock Quarry Surface Mining Permit; APN 316-061-11 (Willow Creek Area) Case Nos.: CUP-14-013XM/RP-14-001XM
SCH#: 2016062059

Dear Michael E. Wheeler:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. The review period closed on March 7, 2017, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

# Document Details Report
## State Clearinghouse Data Base

**SCH#** 2016062059
**Project Title** Brown Rock Quarry Surface Mining Permit; APN 316-061-11 (Willow Creek Area) Case Nos.: CUP-14-013XM/RP-14-001XM
**Lead Agency** Humboldt County

**Type** Neg Negative Declaration

**Description** Modification of a recent 15 year renewal of a previously approved CUP for an upland rock quarry surface mining operation. The modification seeks to expand the area of mining operation by adding an additional 39 acres to be mined (in addition to the existing 25 acre mining area). This includes areas that will be mined for rock and areas that will be used for topsoil and overburden storage. The Reclamation Plan is revised to show that the total area to be reclaimed is 64 acres. Rock of various sizes will continue to be mined, with an estimated volume of 4 million tons of hard rock over the life of the mine. Mining and overburden fill have already occurred on approximately 25 acres of the parcel.

## Lead Agency Contact

**Name** Michael E. Wheeler
**Agency** Humboldt County
**Phone** (707) 445-7541 **Fax**
**email**
**Address** 3015 H Street
**City** Eureka **State** CA **Zip** 95501

## Project Location

**County** Humboldt
**City**
**Region**
**Lat / Long**
**Cross Streets** S. Side of hwy 299, approximately 3.0 west of Willow Creek
**Parcel No.** 316-061-11
**Township** 6N **Range** 4E **Section** 1 **Base** HM

## Proximity to:

**Highways** 299
**Airports**
**Railways**
**Waterways** Willow Creek
**Schools**
**Land Use** LU: Timber Production
Z: Timber Production zone
GP: Timber Production

**Project Issues** Geologic/Seismic; Noise; Water Quality; Other Issues

**Reviewing Agencies** Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 1E; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 1; Regional Water Quality Control Board, Region 1; Air Resources Board, Major Industrial Projects; Native American Heritage Commission; Department of Toxic Substances Control; State Lands Commission

**Date Received** 02/06/2017 **Start of Review** 02/06/2017 **End of Review** 03/07/2017



Note: Blanks in data fields result from insufficient information provided by lead agency.

H OPA VALLEY TRIBAL COU CIL
Hoopa Valley Tribe
Post Office Box 1348 Hoopa, California 95546
PH (530) 625-4211 · FX (530) 625-4594
www.hoopa-nsn.gov

Chairman Ryan Jackson

POSTED

RECEIVED MAR – 3 2017 Humboldt County Planning Division

March 1, 2017

Michael E. Wheeler
County of Humboldt
Planning and Building Department
3015 H Street
Eureka, Ca 95501

Re: Roger Brown and Co. Surface Mining Permit and Conditional Use Permit Modification at the existing extraction and processing site, Willow Creek area.

Dear Mr. Wheeler:

The Hoopa Valley Tribe (HVT) reviewed the potential impacts from the proposed expansion through the Initial Study and Reclamation Plan Amendment document. HVT determined that further environmental review is required.

HVT believes that expanding mining operations to include an additional 39-acre surface distribution area would negatively impact the stability of the hillslope within the project area, resulting in potential mass erosion to the HWY 299 corridor and sediment yield to tributaries connecting to the Trinity River. Furthermore, HVT believes that the combination of road stacking within the steep excavated contours of the existing and future removal areas would make it extremely difficult and costly to restore to pre-project forest conditions. Do not approve "the permit modification ... to expand the area of mining operation by adding an additional 39 acres to be excavated..."

The Hoopa Tribe urges a full environmental assessment because this upland rock quarry is located within the aboriginal territory of the Hupa people. Additionally, this quarry could have a devastating impact on the Hoopa Tribe and its people if hillslope failures originating from the quarry caused a closure to HWY 299 which would impact tribal commerce and the health and safety of the Hoopa Tribal membership.

Based upon our review of the proposed project, we conclude that the project negatively impacts the environment. The Hoopa Tribe requests a full environmental assessment be implemented under the CEQA process.

If you have any questions and/or require clarification as to our recommendations, please contact Ken Norton, Environmental Director at (530) 625-5515.

Sincerely,

Ryan Jackson, Chairman
Hoopa Valley Tribe

February 8, 2017

Michael E. Wheeler, Senior Planner
Planning Division of the Planning and Building Department,
County of Humboldt
3015 H Street, Eureka CA 95501

Regarding Subsequent Mitigated Negative Declaration R. Brown and Sons Quarry, Reclamation Plan Amendment and Proposed Expansion, Recirculation Draft – SCH# 2016062059, February 2017

Dear Mr. Wheeler,

I write as an interested citizen who must travel frequently on Hwy 299 from my home and farm in Hoopa to Eureka for medical, business, government, social, cultural and other reasons, as Eureka is the county seat of Humboldt. I transport produce to stores and restaurants in the Humboldt Bay Area. The safest and most direct route to the coast is via Hwy 299.

Potential for Catastrophic Slides of Earth and Rock from the Brown Quarry

Because of my dependence on the safety and reliability of Hwy 299, particularly from Arcata to Willow Creek, I am concerned about the potential for slides, particularly a catastrophic slide, from the disturbed steep slopes of the Brown Quarry.

There is also a significant concern about the impact on people who may be hurt when driving by the site in the event of a slide and the potential for flooding and loss of life and property and wildlife if Willow Creek were flooded if such a slide should occur. Given that there is a history of slides from human activity and from natural forces on the hillside and on the site of the Brown Quarry, and to read that the current analysis admits to the potential for slides, to claim that the potential for a catastrophic slide is reduced to nothing by mitigations is not acceptable particularly in light of the immediate proximity of the Quarry to Hwy 299 and Willow Creek which borders the highway and the visible history of slides on this hillside.

Cumulative Effects

There is a potential for a large and even catastrophic slide due to the extreme disturbance of the hillside by the mining at Brown Quarry, past, present and future, and this cannot be denied in the present CEQA document by limiting the analysis to only the proposed expansion. That's because the disturbance in the proposed expansion is not additive to the current permitted area, it is a cumulative effect and must be analyzed as such under CEQA.

Cumulative impacts are when effects of the project are considered in conjunction with related current and past projects. That's missing in the current document. For example, noise on the original 25 acres, when considered together with noise associated with ongoing excavation combined with noise made on the added 39 acres will be of some degree of sound that is more harmful to wildlife than the noise from the two sites added together.

Amendments to the Reclamation Plan do not address the cumulative impact of past activities including extensive logging and subsequent erosion, erosion from past mining and road building projects and other activities that have reduced the regeneration capacity in relation to the proposed project and the ability to establish replanted vegetation. What has been the success of former revegatation at the Brown Quarry? Has remediation been accomplished on the original 25 acres and to what extent? All these factors play into a cumulative impact.

I have been told by a reliable local source that there was once a "dry" slide at the Brown Quarry which was significant enough to harm a piece of heavy equipment and injure the operator of the equipment. Has there ever been a slide at the site while operations were underway and while workers were at risk?

Thus the CEQA analysis fails because it limits the analysis to the expansion area and does not include review of other previously reviewed and permitted operations and failing to take cumulative impacts from those operations into consideration.

Impacts on Northern Spotted Owl and Red Vole Habitat

It has been found that ecotones between older forest and other habitats may be additional important components of northern spotted owl habitat in northwestern California.

Annual Progress Report (Contract#14-CS-11052007-016) to Region 5, USDA Forest Service. MONITORING THE POPULATION ECOLOGY OF SPOTTED OWLS (Strix occidentalis caurina) IN NORTHWESTERN CALIFORNIA: ANNUAL RESULTS, 2014. Franklin et al. 13 March 2015
https://reo.gov/monitoring/reports/nso/NWC%20nso%20demog%20annual%20report%202014.pdf

Recent landscape-level analyses suggest that in some parts of the subspecies' range a mosaic of older forest habitat interspersed with other vegetation types may benefit northern spotted owls more than large, homogeneous expanses of older forests. https://www.fws.gov/arcata/es/birds/nso/ns_owl.html

The habitat described in the documents above is what's currently found at the Brown quarry and to be eliminated for the next few decades, at least, when further clear cutting of native trees is undertaken on the proposed additional acreage in order to access rock. As older forest habitat is found nearby on federal land where

extensive surveys have shown Spotted O wl populations, it is not unreasonable to anticipate that the site and land within the vicinity is used for nesting and/or foraging.

However, the auditory impact of explosives and machinery used in mining at the Brown quarry, including cumulative impact of the original and proposed sites, has not been measured so that it is not possible to measure the reach of impact, i.e. how far from the borders of the site, impact could reach.

It doesn't appear that a study of the degree of loudness, i.e. decibels that are reached and anticipated to be reached when explosives and machinery are used at the Brown quarry and of an evaluation of the impact that these sounds would have on foraging or nesting Northern Spotted Owls at the site or in the vicinity. Explosive sounds in particular can't be compared to highway sounds from Highway 299 just below the site and are likely to affect a much wider area. An analysis of auditory impacts is a failing of the CEQA analysis. It negates the checklist at page 14 regarding Noise, which indicates that noise is not a potentially significant impact. Until it has been established just what is the noise level at the site, which is likely significant due to the use of explosives this determination cannot be made. There appears that not even basic information about when, at what amount and how many explosions occur each year, never mind the potential impact on the Spotted Owl and Red Vole that may occupy the area. This needs to be remedied in an EIR.

https://www.fws.gov/arcata/es/birds/MM/documents/MAMU-NSO%20Harassment%20Guidance%20NW%20CA%202006Jul31.pdf

With this letter I incorporate the record of the first draft of the mitigated negative declaration and all associated documents and comment letters with the current iteration of the CEQA procedure. Though there is an improvement from the previous draft, the failings of the current document demand that a closer look at the project is necessary to achieve compliance with CEQA. I ask that you require a full Environmental Impact Statement for this environmentally significant proposal.

Sincerely,

Patty Clary
P,O. Box 1447
Hoopa, CA 95546

Klamath
ENVIRONMENTAL
LAW CENTER

March 8, 2017

BY E-MAIL AND PERSONAL DELIVERY

Michael E. Wheeler
Senior Planner
Planning Division
Planning and Building Department
County of Humboldt
3015 "H" Street
Eureka, CA 95501-4484

Re: Intent to Adopt a Subsequent Mitigated Negative Declaration for: Brown Rock Quarry; Reclamation Plan Amendment and Proposed Expansion; Conditional Use Permit Modification; APN 3167-061-11; CUP-14-013M/RP-14-001M

Dear Mr. Wheeler:

I write to comment on the above referenced project. I write on behalf of myself and the Mateel Environmental Justice Foundation ("Mateel"). This letter incorporates by reference the August 8, 2016 comment letters – already in the rulemaking file – by the Mateel Environmental Justice Foundation and the Environmental Protection Information Center ("EPIC"); by Richard and Margaret Rowland; and by R.E. Busch, Jr., PhD (Dr. Busch).

A conditional use permit cannot be approved for the R. Brown & Sons Quarry Expansion and Reclamation Plan absent a full Environmental Impact Report ("EIR"). The Planning Department proposes to approve this project on the basis of a mitigated negative declaration. A project may not be approved with a mitigated negative declaration level of environmental analysis if there is a fair argument, based on evidence in the whole administrative record, that a significant adverse environmental effect will occur. There are fair arguments that, based on evidence in the whole administrative record, and even with the negative declaration mitigated as proposed in the above-referenced Subsequent Mitigated Negative Declaration, there will be adverse environmental effects. Issues on which a fair argument exists include, the potential for landslides/slope instability and the potential for impact to Highway 299 and Willow Creek (the water body); the Nothern Spotted Owl and exposure to asbestos from the presence of a (now admitted) vein of untramafic rock in part of the project area that will be disturbed by the

1125 – 16th Street, Suite 204, Arcata, California 95501 Phone (707) 268-8900

proposed quarry expansion. For these reasons, the Planning Department may not approve the proposed project absent a full EIR.

**The Potential for Landslides**

As part of the responses to comments that are currently in the rulemaking file, there is an August 18, 2016 letter from Lindberg Geologic Consultants ("Lindberg"). This letter attempts to refute the comments Dr. Busch made in his August 8, 2016 comment letter (already in the rulemaking file and incorporated by reference here). Basically, what you have when you put the Lindberg letter alongside Dr. Busch's letter, is a battle of the experts. Within the context of the California Environmental Quality Act ("CEQA"), a synonym for "battle of the experts" is "fair argument." Based on this "fair argument between the experts" alone, a full EIR is required.

Taking the Lindberg letter point-by-point, the Lindberg letter attempts to answer Dr. Busch's point that the "intrinsically adverse geologic conditions" are highly likely to trigger landsliding. Lindberg's argument attempts to minimize the potential for landslides that could result from work at a quarry site (including the expansion area) that is underlain by a Dormant-Young landslide. Lindberg's argument (and that is what it is, an argument) is based in part on its contention that there is "only" one small debris slide (already) mapped by CGS within the quarry property, which Lindberg attempts to attribute to "the old highway (now abandoned)." This is an admission that working in the area (for, example road work) underlain by Dormant-Young landslide can trigger landslides. This undercuts the rest of Lindberg's (fair) argument that on the quarry site there will not likely be landslides absent a major earthquake (which Lindberg admits will likely trigger landslides within the area to be quarried). For one, as Lindberg admits, a landslide has already been caused – in the absence of a major earthquake – by work on the area, in this case road work done in conjunction with the old highway. For another, Lindberg admits that, with regard to FOS calculations, "some angles were clearly too steep as shown by FOS values less than one." That was precisely Dr. Busch's point, that averaging FOS values over larger portions of the site obscured the fact that some areas were subject to FOS calculations of less than one, were too steep, and thus subject to likely landslides and their attendant significant adverse environmental effects. Also, Lindberg notes that, "this quarry, even when expanded as proposed, will occupy only a small area within this landscape-scale (hundreds of acres) rock slide feature." That bolsters another point that Dr. Busch made based on the Google Earth photo of the area occupied by that "hundreds of acres rock slide feature." The Google Earth photo to which I refer is to be found at Exhibit A to the August 8, 2016 letter that I submitted on behalf of Mateel and EPIC ("Exhibit A" and incorporated by reference here). If you look at the first page of Exhibit A, it depicts an area south and east of the area presently worked as the quarry. The circled areas on that page of Exhibit A show numerous landslides, including a very large landslide in the top center of page one of Exhibit A. These landslides occurred without involvement of road building/maintenance or – to anyone's knowledge – major earthquake activity. They bolster the point that Lindberg inadvertently made when it admitted that there is a rockslide on the quarry area caused by roadwork on the "old highway" – working this Dormant-Young landslide feature, either by excavation or road building (both of which will occur in the

are into which the quarry will expand) is likely to increase the risk of landslides. The size of the landslide shown in the top center of page one of Exhibit A (when compared to the size of the quarry site) shows the potential scale of the kind of slide that – as Dr. Busch fairly argues – could be triggered by work done in and on the expanded quarry, and the attendant significant adverse effects to wildlife, to public transportation along Highway 299, to the larger environment that would be caused by closure of Highway 299 (effects on alternative roadways and the communities that live and work along those roadways) and to Willow Creek (the water body and salmonid habitat).

Lindberg argues that slides depicted on page one of Exhibit A are "landslides in other watersheds not connected to the Brown quarry . . . ." It is unclear what the point of this argument is. It is certainly wrong. Those landslides are in areas that are, like the R. Brown & Sons Quarry, in the Willow Creek watershed. They are certainly closer to the R. Brown & Sons Quarry than the site – six miles away – that was used for the Engineering Geologic Evaluation. As Lindberg notes in its letter, use of off-site data is acceptable to both reviewing geologists and to the State Office of Mine Reclamation. Significant is what Lindberg does not attempt to argue, which is that the landslides depicted in page one of Exhibit A that are in "other watersheds not connected to the Brown quarry" are not underlain by the Dormant Young landslide feature. Lindberg's argument here fails to dispose of the argument Dr. Busch was making.

Lindberg argues that, contrary to what Dr. Busch has argued, "[t]here is no indication of a dozen landslides in the quarry." The word, "dozen" is a red herring and does not dispute that there are landslides in and near the quarry site (including areas in the area into which the quarry is proposed to expand). Lindberg attempts to portray these "landslides" as "not counting" because they are "within the active quarry stockpile of material [which now will include soil, ground asphalt and crushed concrete brought in from off-site and stockpiled there]. The photograph at the bottom of page one of Exhibit A shows at least five landslides in the quarry site or its immediate vicinity that are not associated with any side cast or processing. Similarly, the photo at page two of Exhibit A shows at least three landslides in the area into which R. Brown & Sons proposes to expand quarrying operations. The point, here, is that these already existing landslides show the instability of the slopes and the likelihood that working this material, disturbing it, removing vegetative cover from it, will cause erosion and the potential for even greater slides with their attendant downhill environmental impacts. Lindberg may argue against Dr. Busch's observations, but Lindberg has failed to dispose of the issues that Dr. Busch has raised. A fair argument – based on substantial evidence in the record – remains as to whether the project will causes adverse environmental effects. An EIR must, therefore, be conducted before Humboldt County can legally approve this project.

**The Potential for Exposure to Asbestos**

The original proposed negative declaration neglected to mention that the project proponent (and presumably its consulting engineers) knew of the existence of a vein of ultramafic rock and serpentinites in at least two areas at the quarry site. In response to comment

letters submitted by the North Coast Unified Air Quality Management District ("Air District"), Mateel and EPIC, the project proponent admitted that an area to be disturbed by the proposed expanded quarrying operations contains "naturally occurring asbestos, serpentine or ultramafic rock" as defined in California Code of Regulations, title 17 section 93105, subsection (b)(2) ("section 93105(b)(2)"). This triggers the requirements of section 93105(f)(1), which requires and Asbestos Dust Mitigation Plan that has been approved by the Air District. It requires that the operator meet all of the requirements of section 93105(f)(2)(B) and (f)(2)(C). Since the project proponent proposes to excavate the vein of ultramafic rock and to stockpile if for reclamation purposes, the requirements of section 93105(f)(2)(C)(1) are particularly pertinent. These include measures to ensure that material being excavated does not cause dust that is visible crossing the property line; the track out control and prevention measures listed in section 93105(f)(2)(C)(5); air monitoring for asbestos as required under section 93105(f)(3)(B); reporting requirements pursuant to section 93105(f)(3)(C), and testing requirements for airborne asbestos as required in section 93105(h)(3). As far as I can determine, the Air Board has not exempted R. Brown & Sons Quarry from the asbestos ACTM, nor does the proposed Subsequent Mitigated Negative Declaration Mitigation Measure AQ-3 make it clear that Measure AQ-3 requires compliance with the Asbestos ACTM.

In an August 17, 2016 letter to the Air Board, Vestra notes that in the area of the quarry "serpentine units are discontinuous and occur in a matrix of highly sheared greywacke and chert." Section 93105(h)(2) requires the application of ARB Test Method 435 to determine whether asbestos is present on the site. Apparently, the project proponent has yet to employ ARB Test Method 435, as the mitigated negative declaration provides that "if test method 435 reveals the existence of naturally occurring asbestos in the quarry . . . ." A reasonable inference from use of the word "if" is that ARB Test Method 435 has not yet been employed, otherwise the mitigated negative declaration would have discussed the results of the application of ARB Test Method 435.

The Asbestos Geologic Evaluation, included in the Subsequent Mitigated Negative Declaration as Attachment A, does not agree that there was only one area of ultramafic rock identified in the area of the quarry. Instead, that Evaluation notes that areas of ultramafic rock are located "in a road cut along the current haul road and along old logging roads." This is troubling. That a vein of ultramafic rock was identified along the "current haul road" more than twelve years ago is troubling in that there is no indication that R. Brown & Sons Quarry took any steps to comply with the Asbestos ACTM. The Geological Evaluation optimistically notes that "the wall of the road cut has not been disturbed for several years." When was it disturbed? How was it disturbed? What measures, if any, were taken during the disturbance from scattering asbestos-containing colluvium and dust from being scattered around the site? Without a rational application of ARB Test Method 435 there is no way to know if there are areas of colluvium scattered around that area currently proposed for disturbance. Without a description of a rational method for application of ARB Test Method 435 to this area, it is impossible to state that the proposed mitigations will result in no significant adverse environmental effects. Under Proposition 65's implementing regulations (27 CCR § 25705(b)(1)), exposure to more than 100

asbestos fibers per day presents a 1 in 100,000 chance of dying from cancer. This should be considered a significant adverse environmental effect. There is no analysis in any of the Air Quality Mitigations that provides any estimate of the number of airborne asbestos fibers likely to be present at the site during operations there. There has been no attempt to conduct a risk or exposure assessment for workplace exposures that are likely to result from the acknowledged presence of asbestos at the quarry, including in the new areas of the site that will be disturbed by the proposed quarry expansion. That is because there simply isn't enough data generated by ARB Test Method 435, and/or on-site testing of air samples by a method specified by the US EPA (as required pursuant to 17 CCR § 93105(h)(3)).

It is reasonable to infer that asbestos other than that present in the one "roadcut located" ultramafic vein will be disturbed during operation. Figure 2 of the Asbestos Geologic Evaluation shows two areas of ultramafic rock that occupy a substantial portion of the quarry area that will be disturbed and/or through which truck traffic will move. The Geologic Evaluation (at p. 8) notes that "[a]djacent to the pits are several occurrences of colluvium and deeply weathered sub-crop consisting of serpentinite mixed with other rock types occurring in the vicinity. One of these is exposed along approximately 100 feet of a cut bank on the haul road to the southeastern pit (outside the area disturbed by current mining). The Geologic Evaluation (at p. 10) notes that, "There are also areas of undisturbed soil containing clasts of serpentinite trending in a northwesterly-southwesterly direction between the road cut exposures." Some of these areas appear to have been disturbed during current operations and, once again, there is no evidence in the rulemaking file that show what mitigation measures, if any, were employed. This is disheartening because it appears to show a callous disregard by the project proponent for the health and safety of its employees. It is also problematic because, once again, it is evidence in the rulemaking file that shows that asbestos dust and materials could have been scattered around the site, ground into roadways by truck traffic, and/or moved around the site during previous operations. Hauling materials from the proposed areas for expanded operations could therefore disturb this material to the extent it has been spilled or scattered onto haul roads. Once again, no ARB Test Method 435 analysis has been done to any of these materials. Nor did the 2010 State Compensation Insurance Fund Air Monitoring Results (Attachment D) conduct any analysis for the presence of airborne asbestos fibers. Has the project proponent reported to its workers' compensation insurance carrier the presence of asbestos at the site?

It is unclear why the 2010 particulate testing is even included in the Geologic Evaluation. The testing was for respirable silica and respirable particulate, not asbestos. Given the acknowledged presence of serpentinites over several areas of the site, and a history of these deposits having been disturbed, the likely presence of asbestos presents a likelihood that there will be significant workplace exposures to this deadly carcinogen. The Subsequent Mitigated Negative Declaration lists as "mitigations" remedial steps that will be taken after project approval, and these hinge on the results of an analysis based on sampling and testing according to ARB Test Method 435 for unspecified materials on site and in unspecified areas, and, potentially, air testing for airborne asbestos as per 27 CCR § 93105(h)(3). What the Subsequent Mitigated Declaration proposes to do, therefore, is to put off any meaningful analysis of this potential effect

until after the project has been approved. It is not permissible under CEQA to conduct a required environmental analysis after the project has been approved. This analysis must be done before project approval. Putting meaningful analysis off until after project approval is nothing more than the *post hoc* rationalization prohibited by most of the foundational CEQA cases decided by California's Supreme Court over the last four decades.

For all of the reasons specified above, Humboldt County cannot legally approve or grant the proposed Conditional Use Permit until and unless a full EIR has been conducted.

Cordially,

William Verick

## Additional Applicant Materials Submitted in Response to Comments

## Wheeler, Michael

**From:** Johnston, Wendy L. <WJohnston@Vestra.com>
**Sent:** Tuesday, May 30, 2017 8:46 AM
**To:** Wheeler, Michael; Werner, Steve; Ford, John
**Cc:** K B
**Subject:** RE: Brown Quarry CUP Modification Willow Creek

All

The Asbestos Management Plan has been submitted to NCUAQMD and approved by Mr. Steer.
Rock samples were collected from the two areas of concern noted by Mr. Verick under the direction of NCUAQMD staff on May 24
The upper area appears to be dominated by limestone and some slightly metamorphosed materials rather than serpentinite
Discrete samples were collected from three locations at the site: the lower known area, and two samples from the upper area.
These samples have been submitted to the laboratory for asbestos material occurrence.

Browns would like to move forward with the project
The tribe has withdrawn its concerns
I believe we have met the concerns expressed by Mr. Verick relating to asbestos and he has stated he would not pursue additional issues if this was handled
Will the County be responding to the comments received on the re-submittal of the document to the clearing house?
Do you feel another meeting is in order to discuss progress forward?
Please let me know

Regards

Wendy

Wendy Johnston
**VESTRA Resources, Inc.**
5300 Aviation Drive
Redding, California 96002
Tel: 530.223.2585
Fax: 530.223.1145
Cell: 530.949.9704

## Werner, Steve

**From:** Wheeler, Michael
**Sent:** Wednesday, June 21, 2017 7:25 AM
**To:** Werner, Steve
**Subject:** FW: Brown Quarry Asbestos Sampling Results
**Attachments:** 17E1252_WKO_01.pdf

Should add this to the SR materials submitted by applicant.

---

**From:** Johnston, Wendy L. [mailto:WJohnston@Vestra.com]
**Sent:** Tuesday, June 20, 2017 3:49 PM
**To:** Wheeler, Michael; alsteer@ncuaqmd.org
**Cc:** William Verick
**Subject:** FW: Brown Quarry Asbestos Sampling Results

Michael and Al:

Attached are the results of the asbestos sampling and a short email that our geologist sent to the Browns
Only the known area on the main road shows serpentinite group materials

Please call me or Jason A with questions
Wendy

---

**From:** Antognini, Jason
**Sent:** Tuesday, June 20, 2017 3:31 PM
**To:** dtb2020@hotmail.com
**Cc:** Johnston, Wendy L.
**Subject:** Brown Quarry Asbestos Sampling Results

Hello Mr. Brown,

We just received the laboratory results for the in-situ asbestos sampling performed at the Brown quarry on May 24. Of the three composite samples collected, only the sample from the previously identified block of serpentinite along the lower haul road contained asbestos. This sample, labeled S-1 in the report, contained 45 volume percent asbestos in the form of the serpentine group mineral chrysotile. Samples S-2 and S-3 from the mafic rock exposed in the upper benches did not contain any asbestos. These results are consistent with field observations and examination of hand samples under magnification. A copy of the laboratory report is attached. Feel free to contact me with any questions or concerns.

Sincerely,

Jason Antognini
Geologist

**EMSL Analytical, Inc.**
464 McCormick Street San Leandro, CA 94577
Tel/Fax: (510) 895-3675 / (510) 895-3680
http://www.EMSL.com / sanleandrolab@emsl.com

| | |
|---|---|
| **EMSL Order:** | 091710744 |
| **Customer ID:** | BASL62 |
| **Customer PO:** | 17E1252 |
| **Project ID:** | |

**Attention:** Ricky Jensen
Basic Laboratory, Inc.
2218 Railroad Avenue
Redding, CA 96001

**Project:** 17E1252

| | |
|---|---|
| **Phone:** | (530) 243-7234 |
| **Fax:** | (530) 894-5143 |
| **Received Date:** | 05/31/2017 10:15 AM |
| **Analysis Date:** | 06/14/2017 |
| **Collected Date:** | 05/24/2017 |

## *Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy*

| | | | Non-Asbestos | | Asbestos |
|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **% Fibrous** | **% Non-Fibrous** | **% Type** |
| 17E1252-01<br>*091710744-0001* | S-1 | Gray/Green<br>Non-Fibrous<br>Homogeneous | | 55% Non-fibrous (Other) | 45% Chrysotile |
| 17E1252-02<br>*091710744-0002* | S-2 | Gray/Green<br>Non-Fibrous<br>Homogeneous | | 10% Quartz<br>60% Gypsum<br>30% Non-fibrous (Other) | None Detected |
| 17E1252-03<br>*091710744-0003* | S-3 | Gray<br>Non-Fibrous<br>Homogeneous | | 10% Quartz<br>60% Gypsum<br>30% Non-fibrous (Other) | None Detected |

Analyst(s)
*Jared Martin (3)*

Matthew Batongbacal
or Other Approved Signatory



Report amended: 06/14/2017 11:42:28 Replaces initial report from: 06/14/2017 09:47:39 Reason Code: Client-Other (see report comment)

**North Coast Unified Air Quality Management District**
707 L Street, Eureka, CA 95501
Telephone (707) 443-3093 FAX (707) 443-3099
http://www.ncuaqmd.org

April 18, 2017

Ms. Wendy Johnston
VESTRA Resources, Inc.
5300 Aviation Drive
Redding, CA 96002

RE: R. Brown Quarry Operation

Dear Ms. Johnston:

The purpose of this correspondence is to respond to your recent inquiry concerning potential asbestos emissions from the R. Brown Quarry.

Based on your inquiry, the District understands you have questions concerning Asbestos Airborne Toxic Control Measure (ATCM) 93105 for construction, grading, and surface mining operations and about the potential for fugitive asbestos emissions from activities in and around the Quarry.
The State's *Asbestos Airborne Toxic Control Measure (ATCM) (93105) for Construction, Grading, and Surface Mining Operations* requires any existing quarry or surface mine that:

- operates in a geographic ultramafic rock unit, or
- has naturally-occurring asbestos present in any portion of the area to be disturbed,

submit a Dust Mitigation Plan to the Air Quality Management District (AQMD) for approval, unless the operation has obtained an exemption specified in the regulation from the AQMD.

New quarries or surface mines must submit the Dust Mitigation Plan prior to starting operation.

The Dust Mitigation Plan must include a description of what measures will be used to:

- Keep stock and working piles adequately wetted during the addition and removal of material;
- Keep on-site unpaved road, parking lots, and staging areas stabilized;
- Prevent exposed areas and inactive stockpiles from emitting dust;
- Ensure that materials to be quarried, excavated, or graded are adequately wetted;

- Ensure that all loads are adequately wetted before and during tuck loading operations;
- Control and clean track-out onto paved public roads.

Each item must be addressed separately with a specific description of the measures that will be used to achieve the specified control. Control measures, requirements, and definitions are found in the regulation.

If a quarry or mine is not located in an ultramafic rock unit, or does not disturb asbestos containing materials during operation, no action or notification is required. While visible dust emissions are prohibited from crossing the property line. If asbestos containing materials are discovered while operating the facility, dust mitigation procedures are required to be implemented and the AQMD notified, however, the presence of asbestos containing rock is not in itself a basis for prohibiting operations at a quarry.

Any crushers, grinding mills, screening operations, or conveyor systems must obtain a Permit To Operate (PTO) from the AQMD and the ATCM limits visible dust emissions from the equipment to 10% opacity, albeit there may be other requirements setting more stringent limits.

Quarries and surface mines that are located in ultramafic rock units can be exempted from this regulation if a registered geologist conducts a geologic evaluation that demonstrates that no serpentine or ultramafic rock is likely to be found in the area. Requirements of the geologic evaluation are contained within the regulation.

Concerning the operations at the quarry, the District determined the project was subject to District Regulation I requiring a Permit to Operate.

My office has requested District staff perform a field inspection of the quarry to determine the reasonableness of sampling. If sampling is warranted, staff will collect samples for laboratory analyses. You will be notified of the disposition of the District field inspection. Your District contact on this issue is Eric Bruckner, Air Quality Specialist III.

In the interim, please do not hesitate to call if you have additional questions. Thank you for taking the time to submit your inquiry.

Sincerely,

Al Steer
Compliance & Enforcement Manager
(707) 443-3093 Ext 119
alsteer@ncuaqmd.org
http://www.ncuaqmd.org

Guidance Document

If asbestos is discovered after the project starts?
Notify AQMD by next business day
If Quarrying and Surface Mining:
Implement standard work practices within 24 hours of discovery
Implement equipment controls within 14 days
Submit Dust Mitigation Plan to AQMD within 14 days

Components of dust mitigation plan
Unpaved Road Traffic Control
15 mph speed limit.
One or more dust control measures, such as:
Adequate watering
Chemical dust suppressant
Maintaining gravel cover with less than 0.25% asbestos content
Other effective measure
Earthmoving Activity Control
Pre-wet ground to depth
Suspend operation in wind
Other effective measures
Off-Site Transport Control
No spillage from trucks
Loads are wetted and either:
Covered with tarp, or
Loaded 6" below top
Stabilization of area after project complete
Establish vegetation
Place 3+" non-asbestos material as cover paving

Asbestos Dust Mitigation Plan
Track-out Control
Removal of visible track-out from paved public road by wet sweep or HEPA vacuum at end of day or at least once per day;
Installation of track-out prevention measure, such as:
Gravel pad
Tire shaker
Wheel wash
Pavement extension
Other effective measure
Active Storage Piles Kept Adequately Wet.
Control for Surface Areas and Storage Piles That Will Remain Inactive More Than Seven Days. Control Examples Include:
Surface adequately wet
Create surface crusting

Apply chemical dust stabilizer
Install wind barrier
Other effective measure

*Any identified naturally-occurring asbestos at the quarry that is not to be disturbed must be adequately fenced, marked with signs identifying the location of the naturally occurring asbestos, and covered with at least one foot of on non-asbestos containing fill material*

Asbestos ATCM 93105 http://www.arb.ca.gov/toxics/atcm/asb2atcm.htm
Asbestos ATCM 93106 http://www.arb.ca.gov/toxics/atcm/asbeatcm.htm

**"WARNING!**

**This material may contain asbestos.**
**It is unlawful to use this material for surfacing or any application in which it would remain exposed and subject to possible disturbances.**

**Extreme care should be taken when handling this material to minimize the generation of dust."**

The geologic evaluation must be conducted by a registered geologist.

Registered geologist is a person that is currently licensed as a geologist with the State of California, Department of Consumer Affairs, Board for Geologists and Geophysicists.

**Guidance Document**
http://www.arb.ca.gov/toxics/asbestos/atcm/AsbP1IGD.pdf

# HOOPA VALLEY TRIBAL COUNCIL

Hoopa Valley Tribe

Post Office Box 1348 Hoopa, California 95546

PH (530) 625-4211 · FX (530) 625-4594

www.hoopa-nsn.gov

Chairman Ryan Jackson




June 2, 2017

Michael E. Wheeler
County of Humboldt
Planning and Building Department
3015 H Street
Eureka, Ca 95501

Re: Roger Brown and Co. Surface Mining Permit and Conditional Use Permit Modification at the existing extraction and processing site, Willow Creek area.

Dear Mr. Wheeler:

The Hoopa Valley Tribe (HVT) has received and reviewed additional information regarding the environmental assessment of the proposed expansion of the Roger Brown Co. surface mining operation. Based upon the evaluation of the geologic study and surface water runoff plan, the HVT has determined that expanding mining operations to include an additional 39-acre surface distribution area would not negatively impact the stability of the hill slope within the project area, resulting in potential mass erosion to the HWY 299 corridor and sediment yield to tributaries connecting to the Trinity River.

Based upon our current review of the proposed project, we conclude that the potential project impacts have been adequately addressed and mitigated to address our environmental concerns.

If you have any questions and/or require clarification as to our recommendations, please contact Ken Norton, Environmental Director at (530) 625-5515.

Sincerely,

Vice Chairman

Ryan Jackson, Chairman

Hoopa Valley Tribe

VESTRA

5300 Aviation Drive | Redding, CA 96002
Phone 530.223.2585 | Fax 530.223.1145
Info@vestra.com | www.vestra.com

GIS, Environmental, & Engineering Services

June 27, 2017

71410

Mr. Al Steer
North Coast Unified Air Quality Management District
707 L Street
Eureka, CA 95501

**RE: In Situ Asbestos Sampling Results**
**R. Brown and Sons Quarry**
**Willow Creek, Humboldt County, California**
**Conditional Use Permit CUP14-013XM**

Dear Mr. Steer:

In-situ asbestos sampling of exposed mafic and ultramafic rocks in the Brown Quarry workings was performed on May 24, 2017. Sampling was performed according to the work plan submitted to the North Coast Unified Air Quality Management District (NCAQMD) on April 19, 2017. Sampling procedures were in compliance with Air Resources Board (ARB) Test Method 435, Determination of Asbestos Content of Serpentine Aggregate adopted by the ARB in April 1990 and incorporated by reference in support of Airborne Toxic Control Measure (ATCM) 93105: *Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations* in 2001.

The results of the in-situ asbestos sampling and geologic evaluation are presented in this letter.

## SITE LOCATION

The R. Brown and Sons Quarry is located approximately 3 miles west of the town of Willow Creek, California, along California State Highway 299. The current mining area and proposed expansion area are located in Sections 1, Township 6 North, Range 4 East, Humboldt Base Meridian. The latitude and longitude at the center of the project are 40° 55' 45.95" (40.9294) and -123° 40' 40.37" (-123.6779), respectively. The general site location is shown on Figure 1. Current and proposed mining and reclamation activities occur within portions of Assessor's Parcel No. (APN) 316-061-011, which is 77 acres in size and shown on Figure 2.

## OBJECTIVE

R. Brown and Sons submitted a work plan outlining proposed the proposed asbestos sampling in April 2017. The work plan was approved by the District in May 2017. The objective of the sampling effort was to collect in-situ samples for bulk asbestos analysis from two onsite locations within the quarry area where suspected ultramafic rocks were exposed. A secondary objective was to identify, map, and describe any potentially asbestos-bearing ultramafic rocks onsite. Detailed lithological characterization and geological mapping were completed within the quarry area. The areas of concern and field mapping results are shown on Figure 3. Field activities were conducted on May 24, 2017.

## ONSITE PERSONNEL

Onsite personnel included the R. Brown and Sons Quarry co-owner and operator Kevin Brown, a VESTRA Field Geologist, and Eric Bruckner representing the NCAQMD.

## ACTIVITY SUMMARY

In-situ asbestos sampling was performed at the R. Brown and Sons Quarry in Willow Creek on May 24, 2017. The quarry location is shown on Figure 1. The general site layout and proposed expansion are shown on Figure 2. After an initial onsite safety briefing and review in the scale-house area, Mr. Brown (owner-operator), the VESTRA field geologist, and Mr. Bruckner from the NCAQMD proceeded up the lower access road to the site of a previously identified serpentinite outcrop. A three-point composite sample was collected from this known location along the lower haul/access road (S-1). Following mapping and description of this outcrop, personnel proceeded up the access road to the lower active bench. No mafic or ultramafic rocks were identified along the access road. The geology of the lower bench area was mapped and no potential asbestos-bearing lithologies were identified. However, outcrops of mafic rock were visible in the middle and upper benches. Two three-point samples were collected from the mafic rock exposed along the western side of the middle bench. The first (Sample S-2) was collected from the coarser-grained serpentinized material exposed at the base of the outcrop. Sample S-3 was collected 75 feet up-section from S-2 within a finer-grained portion of the same mafic block.

From the middle bench, it was apparent that the mafic block continued upwards into the upper benches of the quarry. Personnel proceeded to the upper bench and mapped the extent of the mafic block, including contacts with the country rock. A three-point composite sample (S-4) was collected from the upper portion of the mafic block. This was not submitted for analysis and instead held pending the results for Samples S-2 and S-3 from lower in the same block. Exposure was sufficient to map the entire extent of the mafic block. Inspection of the remainder of the quarry did not reveal the presence of any other potentially asbestos-bearing lithologies. Duplicate samples from each location were retained by the District representative.

Exposed bedrock units were described and classified according to the methodology developed by International Union of Geological Sciences.

## SITE GEOLOGY

This section presents a summary of the site geology as observed during the in-situ asbestos sampling event. A discussion of the regional and general area geology was included in the August 2016 Geologic Evaluation.

The quarry is covered by a mantle of colluvium of varying thickness. This material is derived from Quarternary landslide deposits and consists of talus dominated by metasedimentary rocks and greywacke. This material can be traced upslope to outcrops of the Western Paleozoic and Triassic Belt Mélange (TRPz) and middle Jurassic Galice Formation (Jg) that constitute the in-place bedrock uphill of the quarry. The thickness of this colluvium ranges from 0 feet along near-vertical faces and active working areas to over 20 feet along shallow lower slopes.

Below the landslide deposits, the Western Paleozoic and Triassic Belt Mélange (TRPz) and middle Jurassic Galice Formation (Jg) comprise the quarry bedrock. The TRPz constitutes the bedrock in the eastern half of the quarry, while the Jg underlies the western half. The property is roughly bisected in a north-south

direction by the Jurassic age Hennessey Ridge thrust fault, which has thrust the younger Jg atop the TRPz. Shear associated with the Hennessey Ridge fault extends throughout the property. The Hennessey Ridge fault strikes nearly north-south with a shallow, approximately 30-degree, western dip. No other major structures were observed during the sampling episode.

Onsite, the TPRz consists of fine-grained volcanic rocks, blocks of chert and siliceous argillite in a matrix of highly sheared greywacke typical of tectonic mélange. The greywacke and included blocks show evidence of lower greenschist facies metamorphism in the form of chloritization of mafic minerals and recrystallization of phyllosilicates. A prominent block of deeply weathered and sheared serpentinite occurs along the lower access road. The entirety of this block is not exposed, but the exposed section measures approximately 100 feet in length with a maximum exposed thickness of 20 feet. A large block of mafic rock, measuring 250 feet in length, 60 feet in thickness, and 70 feet in width, occurs along the southwestern edge of the middle and upper benches in the eastern working area of the quarry. This is overlain by sheared metachert, which is truncated by the Hennessey Ridge thrust fault to the west. Approximately 250 feet east of this block is an outcropping of limestone. No other tectonic blocks were observed within the TRPz during sampling activities. All of the blocks occur in a matrix of highly greywacke. The high degree of tectonic disruption has resulted in the absence of any long-range stratigraphic order or consistent bedding orientation.

The Jg onsite consists of medium-bedded metagreywacke and slate with occasional lenses of conglomerate. The greywacke is locally metamorphosed to phyllite. The entire formation onsite is highly sheared and disrupted. Less disrupted beds show planar and ripple cross-stratification. No tectonic blocks or other noteworthy features were observed. Mafic and ultramafic rocks were not encountered in the Jg.

Two potentially asbestos-bearing blocks of ultramafic-mafic rock were identified onsite. The first is the previously identified body along the lower access/haul road. The second occurs in the middle and upper benches of the eastern workings, as described earlier. The first block consists of deeply weathered serpentinite overlain by colluvium derived from the same. Vertically, this block is comprised of grey-green colluvium composed of a fine-grained mixture of clays, gypsum, and brucite derived from the weathering of serpentine group minerals. This is underlain by small (~10-20 cm) blocks of moderately weathered serpentinite within a matrix of the overlying colluvium. These small blocks consist of antigorite/lizardite and chrysotile in approximately equal proportions, becoming more weathered towards their rims. No relict grains were observed. Weathering proceeded along fractures, producing a distinct "bread-pudding" texture of relatively unweathered serpentinite cobbles and boulders in a friable matrix of clays, brucite, and gypsum. Moving vertically down-section, the size of the blocks increases while the amount of interstitial weathering products decreases until large (2 m) blocks of slightly weathered serpentinite are encountered at the base of the outcrop. The intact serpentinite is composed of approximately equal amounts of lizardite, antigorite, and fibrous chrysotile.

The lithology of the upper mafic block differs considerably from the lower unit. At its base, this block consists of a partially serpentinized gabbro with a relict phaneritc texture. This material is much harder and less altered than the other block along the access road. Pyroxenes have largely altered to lizardite/antigorite that is intimately intergrown with brucite and gypsum. Some relict pyroxene grains are still present, as are anhedral chromite crystals to several mm. Olivine, if present, has altered completely into various weathering products. Gypsum is abundant along fractures. Hand-sample examination under 20X magnification did not reveal the presence of chrysotile or other asbestiform minerals. This basal, moderately serpentinized gabbro grades vertically upwards into a finer-grained metadiabase that in turn grades into a metabasalt near the far western stratigraphic top of the block. This is conformable overlain by a thin- to medium-bedded argillite/greywacke. The top of the succession is marked by the Hennessey Ridge thrust fault and overlying

Jg metasediments. All have been subject to lower greenschist facies metamorphism. This block is believed to represent a portion of an ophiolite sequence composed of the metamorphosed remnants of oceanic crust and overlying hemi-pelagic sediments. Such sequences commonly occur in the Western Klamath Belt along thrust faults. The thrust faults are widely believed to represent the suture of accreted terranes that were abducted onto the western margin of North America.

A prominent rounded lenticular body of limestone was observed 250 feet east of the base of the upper mafic block. The limestone consisted of a partially recrystallized micritic packstone with secondary calcite veins and fracture fillings throughout.

An outcrop geologic map based on field observations and previous research is given as Figure 3. Field logs and lithologic descriptions are included as Attachment A. Representative photographs are included as Attachment B.

## ANALYTICAL RESULTS

Four three-point composite samples were collected from outcrops of possible asbestos-bearing mafic and ultramafic rocks. Sample inventory is shown in Table 1. Sample locations are shown on Figure 3. Sample S-1 was collected from three points along the serpentinite outcrop exposed on the lower access/haul road. Sample S-2 was collected from the base of the upper mafic block, S-3 from the middle of the block, and S-4 from its top near the contact with the overlying argillite. Sample location photographs are included in Attachment B.

**Table 1**
**SAMPLE INVENTORY**

| Sample ID | Sample Type | Lithology (IUGS)[1] | Analysis | Notes |
|---|---|---|---|---|
| S-1 | 3-pt Composite | Serpentinite | Bulk Asbestos (PLM)[2] | Lower access road block sample |
| S-2 | 3-pt Composite | Serpentinite | Bulk Asbestos (PLM) | Upper block basal section sample |
| S-3 | 3-pt Composite | Metadiabase | Bulk Asbestos (PLM) | Upper block middle section sample |
| S-4 | 3-pt Composite | Metadiabase | Not Analyzed | Upper block upper section sample |

Notes:
1 International Union of Geological Sciences classification system for igneous rocks and their derivatives
2 Bulk asbestos by polarized light microscopy (ARB Test Method 935)

Samples S-1, S-2, and S-3 were analyzed for bulk asbestos content by polarized light microscopy according to Air Resources Board Test Method 435. Sample S-4 was retained in order to confirm any anomalous results from the other two samples, S-2 and S-3, collected from the same block. Bulk asbestos content results are given in Table 2. The laboratory analytical report is included as Attachment C.

Only Sample S-1, from the previously identified serpentinite outcrop along the lower haul/access road, contained asbestiform chrysotile. The sample contained 45 percent asbestos by volume in the form of fibrous crystals of the serpentine group mineral chrysotile.

| Table 2<br>BULK ASBESTOS RESULTS | | |
|---|---|---|
| **Sample ID** | **Lithology (IUGS)[1]** | **Bulk Asbestos (Volume %)** |
| S-1 | Serpentinite | 45 |
| S-2 | Serpentinite | 0 |
| S-3 | Metadiabase | 0 |

**Notes:**
1 International Union of Geological Sciences classification system for igneous rocks and their derivatives

## CONCLUSION AND RECOMMENDATIONS

Of the two ultramafic-mafic rock bodies identified during the geological evaluation and sampling episode, only the previously identified body along the lower haul road contained detectable quantities of asbestos. The proposed mine expansion will involve disturbance of this body; however, this material will not be exported from the site or used in the construction of onsite structures. Once mining elevations reach this location, in an estimated 20 years, the quarry operator intends to remove this body and stockpile it for future use as reclamation material. The stockpiled material will be covered with non-ultramafic-bearing alluvium. Dust mitigation measures will remain in place during the expansion and subsequent operations.

Because of the small volume of serpentinite present, and the fact that it will not be exported from the site, the risk of generating asbestos-bearing dust is minimal. Continued mitigation of dust by the application of water to the roadway will be in accordance with NCAQMD regulations by meeting General Permit and operating conditions.

If you have any questions, please contact me at (530) 223-2585.

Sincerely,

**VESTRA Resources Inc.**

Wendy Johnston
Project Manager

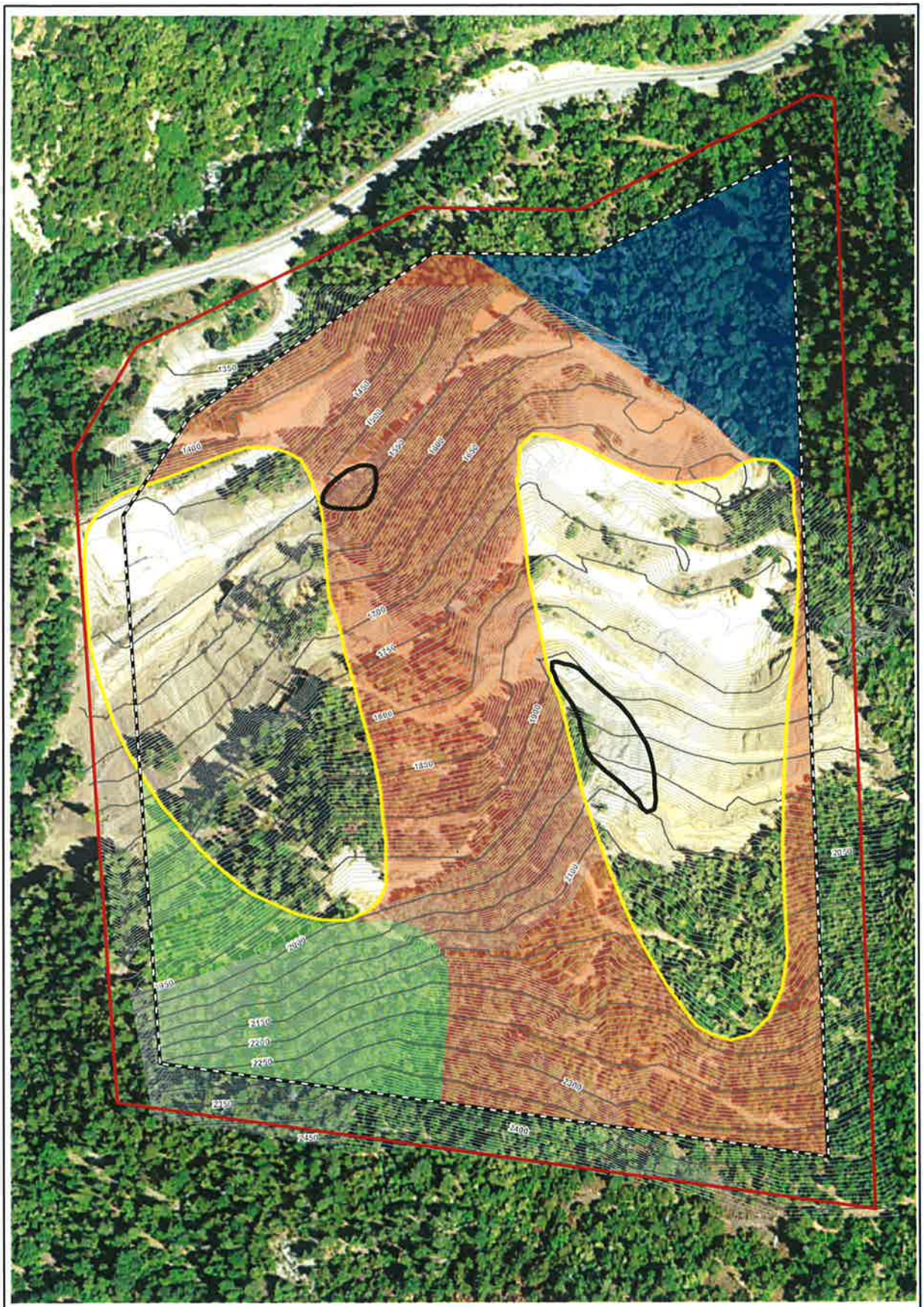
John Andrews
P.G. 4269

CC: Kevin Brown/R. Brown Construction

## Figures


VESTRA

FIGURE 1
**GENERAL SITE LOCATION**
R. BROWN AND SONS QUARRY
HUMBOLDT COUNTY, CALIFORNIA




SOURCE: NAIP 2014 AERIAL PHOTOGRAPH
P:\GIS\71410\DustPlan\71410_SerpentiniteProposedExpansionArea.mxd

FIGURE 2
GENERAL SITE LAYOUT
AND PROPOSED EXPANSION AREA
R. BROWN AND SONS QUARRY
HUMBOLDT COUNTY, CALIFORNIA

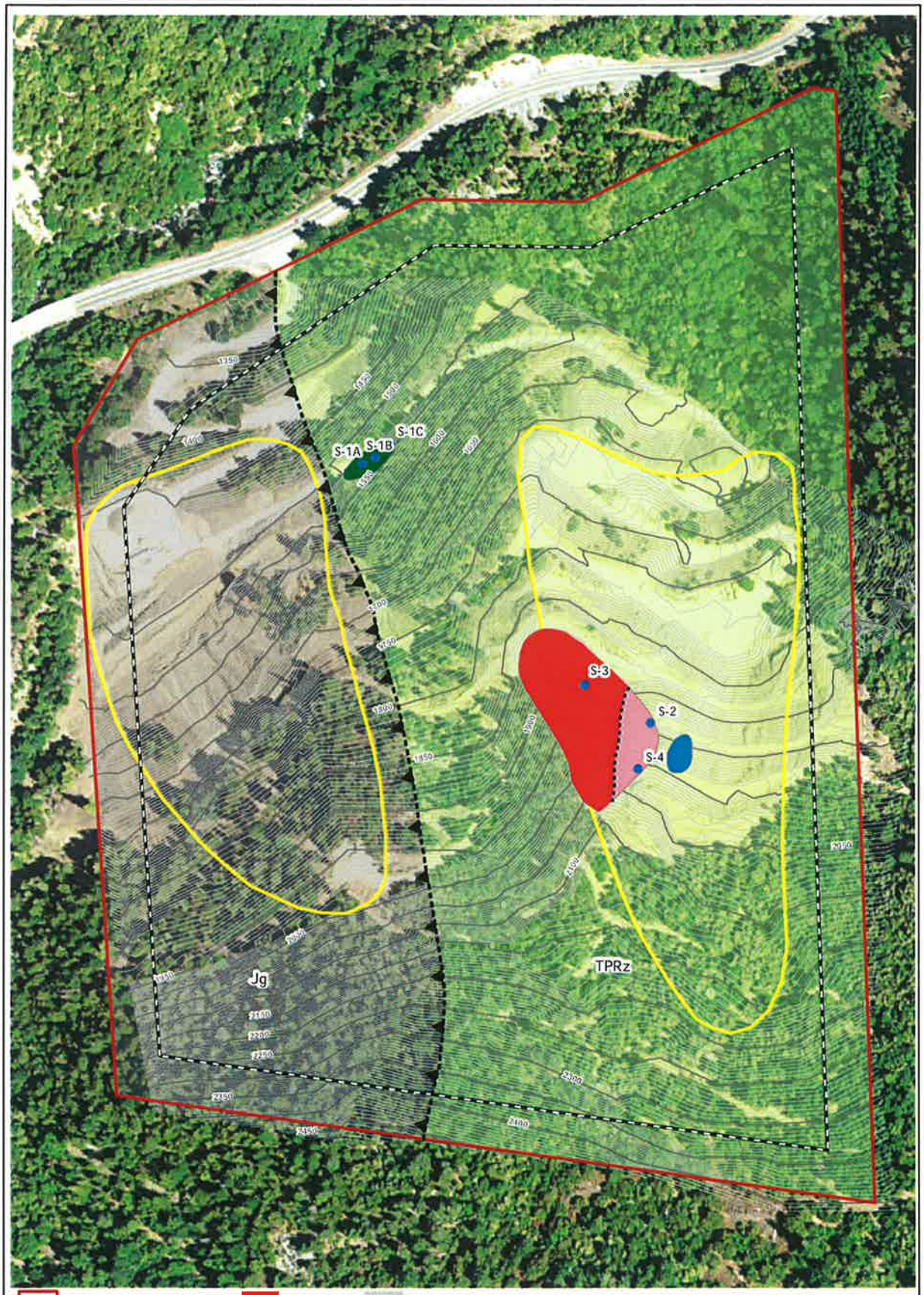



FIGURE 3
SAMPLE LOCATIONS
AND BEDROCK GEOLOGY
R. BROWN AND SONS QUARRY
HUMBOLDT COUNTY, CALIFORNIA

SOURCE: NAIP 2014 AERIAL PHOTOGRAPH
P:\GIS\71410\71410_SampleGeology.mxd

Attachment A

**Field Logs**

## DAILY FIELD ACTIVITIES RECORD

| | |
|---|---|
| PROJECT R. Brown Construction | PROJECT NO. 71410 |
| LOCATION Willow Creek, CA | DATE 5/24/17 |
| WEATHER Clear, calm, ~ 80°F | SUPERVISOR JWA |
| PURPOSE OF EVENT Asbestos Evaluation | AUTHOR (Print & Sign) JRA: J |
| OTHERS IN ATTENDANCE/ AGENCY/ COMPANY Eric Bruckner (NCUAQMD), Kevin Brown (Owner) | |

| | |
|---|---|
| 1000 | JRA to Kevin Brown onsite |
| 1002 | Eric Bruckner onsite |
| 1015 | Site to safety briefing |
| 1030 | Mob to S-1 |
| 1040 | Logged S-1 |
| 1100 | Sampled S-1 |
| 1105 | Mob to middle staging area |
| 1110 | Walked to to inspected middle benches |
| 1120 | Logged S-2 outcrop |
| 1130 | Sampled S-2 |
| 1140 | Logged upsection of S-2 mafic block |
| 1210 | Sampled S-3 |
| 1220 | Logged to restart with Colfax Fm. |
| 1230 | Hiked to upper bench. |
| 1245 | Logged to mapped remainder of mafic body |
| 1320 | Sampled S-4 |
| 1330 | Completed logging to mapping |
| 1350 | Mob. to scale area |
| 1400 | De-brief, handed duplicates to AQMD |
| 1410 | Eric (AQMD) left site |
| 1420 | JRA left site |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

**ADDITIONAL FORMS ATTACHED**

- ☐ SURFACE WATER MONITORING RECORD
- ☐ GROUNDWATER MONITORING RECORD
- ☑ TRENCH LOG
- ☐ PERCOLATION TEST DATA
- ☐ SOIL BORING/ MONITORING WELL LOG
- ☐ STANDARD OBSERVATIONS FORM

VESTRA

## TRENCH/ EXCAVATION LOG

| | |
|---|---|
| PROJECT: R. Brown Const. | PROJECT NO.: 71410 |
| LOCATION: Willow Creek, CA | DATE: 5/24/17 |
| WEATHER: Clear, calm, ~85°F | CONTRACTOR: VESTRA |
| SUPERVISOR: JWA | EXCAVATION ID: S-1 |
| LOGGED BY: JRA | TOTAL DEPTH: N/A* |

### EXCAVATION DATA

PURPOSE: ☐ Perc Test ☐ Soil Classification ☐ UST Related ☑ Other Asbestos Eval.

METHOD: ☐ Hand Auger ☐ Backhoe ☐ Excavator ☐ Other ☑ Equip/Model No. Hand

| DESCRIPTION | REMARKS |
|---|---|
| 0'-15': Triassic-Paleozoic Melange (TPRz). Serpentinite, blue-green, damp, soft except for remnant blocks, highly weathered, remnant blocks massive to coarse-grained, altered to lizardite/antigorite. No relict grains visible. Upper 12' altered to gravelly-sandy clay.<br>15'-30': Triassic-Paleozoic Melange (TPRz). Serpentinite, blue-green, dry, hard, highly weathered along fractures, massive to coarse-grained, altered to lizardite/antigorite. Well developed slickensides. No relict grains. Parent material of the above | * Outcrop samples collected directly<br>• Footages below top of road cut<br>• Tectonic block in metagraywacke matrix. |

1.0' 2.0' 3.0' 4.0' 5.0' 6.0' 7.0' 8.0' 9.0' 10.0'

| SAMPLE ID | LOCATION | PID | LAB ANALYSIS/ LAB |
|---|---|---|---|
| S-1A | 5'-7.5' | -- | Composited for bulk asbestos (PLM) |
| S-1B | 10'-11.5' | -- | |
| S-1C | 13'-14' | -- | |
| | | | |

DECON PROCEDURE: ☑ Detergent Wash ☐ Tap Rinse ☐ Pressure Wash ☑ Other DI Rinse

VESTRA

## TRENCH/ EXCAVATION LOG

| | | | |
|---|---|---|---|
| PROJECT | R. Brown Construction | PROJECT NO. | 71410 |
| LOCATION | Willow Creek, CA | DATE | 5/24/17 |
| WEATHER | Clear, calm, ~ 85°F | CONTRACTOR | VESTRA |
| SUPERVISOR | JWA | EXCAVATION ID | S-2 |
| LOGGED BY | JRA | TOTAL DEPTH | N/A* |

### EXCAVATION DATA

PURPOSE: ☐ Perc Test ☐ Soil Classification ☐ UST Related ☑ Other Asbestos Eval.

METHOD: ☐ Hand Auger ☐ Backhoe ☐ Excavator ☐ Other ☑ Equip/Model No. Hand

| DESCRIPTION | REMARKS |
|---|---|
| 0'-25': Triassic-Paleozoic Melange (TPRz). Serpentinite. Blue-green, dry, hard, slightly weathered at surface & fractures. Massive, coarse-grained, relict pyroxene grains to 1cm. Chromite grains to 0.5cm. Slickensides along fractures. Dominantly lizardite/antigorite. Grades laterally (up section - west) to meta-diabase (S-3). | * Outcrop exposure, samples collected directly.<br>• Footages are depth below top of outcrop<br>• S-2: 3-pt composite of fresh material |

| SAMPLE ID | LOCATION | PID | LAB ANALYSIS/ LAB |
|---|---|---|---|
| S-2 | See above | -- | Bulk Asbestos (PLM) |
| | | | |
| | | | |
| | | | |

DECON PROCEDURE: ☑ Detergent Wash ☐ Tap Rinse ☐ Pressure Wash ☑ Other DI Rinse

VESTRA

## TRENCH/ EXCAVATION LOG

| | | | |
|---|---|---|---|
| PROJECT | R. Brown Construction | PROJECT NO. | 71410 |
| LOCATION | Willow Creek, CA | DATE | 5/24/17 |
| WEATHER | Clear, calm, ~85°F | CONTRACTOR | VESTRA |
| SUPERVISOR | JWA | EXCAVATION ID | S-3 |
| LOGGED BY | JRA | TOTAL DEPTH | N/A* |

### EXCAVATION DATA

PURPOSE: ☐ Perc Test ☐ Soil Classification ☐ UST Related ☑ Other Asbestos Eval.

METHOD: ☐ Hand Auger ☐ Backhoe ☐ Excavator ☐ Other ☑ Equip/Model No. Hand

| DESCRIPTION | REMARKS |
|---|---|
| 0'-40': Triassic-Paleozoic Melange (TPRZ). Metagraywacke to argillite w/ minor chert. Light brown to brown, dry, moderately weathered, moderately bedded. Bedding highly disrupted. Fine-grained, moderately recrystallized.<br>40'-80': Triassic-Paleozoic Melange (TPRZ). Metadiabase. Grades upsection (west) into meta-basalt (greenstone). Dark gray-green, moderately weathered, massive, vertically jointed, fine-grained. Serpentinized in basal 5'. Gradational with serpentinite below. | * Outcrop. Samples collected directly.<br>• Footages given are feet below contact w/ Galice Fm (Hennessey Ridge Fault)<br>• Tectonic Block, same as S-2. Upper section.<br>• S-3: 3pt composite sample of meta-diabase. |

| SAMPLE ID | LOCATION | PID | LAB ANALYSIS/ LAB |
|---|---|---|---|
| S-3 | See above | -- | Bulk asbestos (PLM) |
| | | | |
| | | | |
| | | | |

DECON PROCEDURE: ☑ Detergent Wash ☐ Tap Rinse ☐ Pressure Wash ☑ Other DI Rinse

VESTRA

## TRENCH/ EXCAVATION LOG

| | | | |
|---|---|---|---|
| PROJECT | R. Brown Construction | PROJECT NO. | 71410 |
| LOCATION | Willow Creek, CA | DATE | 5/24/17 |
| WEATHER | Clear, calm, ~90°F | CONTRACTOR | VESTRA |
| SUPERVISOR | JWA | EXCAVATION ID | S-4 |
| LOGGED BY | JRA | TOTAL DEPTH | N/A* |

### EXCAVATION DATA

PURPOSE: ☐ Perc Test ☐ Soil Classification ☐ UST Related ☑ Other Asbestos Eval.

METHOD: ☐ Hand Auger ☐ Backhoe ☐ Excavator ☐ Other ☑ Equip/Model No. Hand

| DESCRIPTION | REMARKS |
|---|---|
| 0'-3.5': Triassic-Paleozoic Melange (TPRz). Metadiabase, dark gray-green, dry, hard, slightly weathered, massive, fine-grained, vertically jointed. Moderately recrystallized. Contiguous with S-3 exposed along lower bench. | * Outcrop. Samples collected directly.<br>• Footage below top of outcrop<br>• S-4: 3-pt composite sample of metadiabase exposed along upper bench<br>– Reserve sample; not submitted. |

1.0' 2.0' 3.0' 4.0' 5.0' 6.0' 7.0' 8.0' 9.0' 10.0'

| SAMPLE ID | LOCATION | PID | LAB ANALYSIS/ LAB |
|---|---|---|---|
| S-4 | See above | -- | Reserve sample to be submitted to confirm results of S-3, if needed. |

DECON PROCEDURE: ☑ Detergent Wash ☐ Tap Rinse ☐ Pressure Wash ☑ Other DI Rinse

VESTRA

Attachment B

## Site Photographs

Deeply weathered serpentinite and overlying colluvium along haul road

Weathered serpentinite along haul road showing intact blocks

Component Sample S-1A location

Component Sample S-1B location

Component Sample S-1C location

Base of upper metagabbro/serpentinite block

Limestone block exposed in middle bench

Upper mafic block showing gradation from serpentinite to diabase (left to right)

Metadiabase and overlying slate/argillite in upper mafic block

Mafic block exposed in upper bench, contiguous with middle bench outcrop

Sample S-2 location

Sample S-3 location

Sample S-4 location

Attachment C

## Laboratory Analytical Report

**EMSL Analytical, Inc.**
464 McCormick Street San Leandro, CA 94577
Tel/Fax: (510) 895-3675 / (510) 895-3680
http://www.EMSL.com / sanleandrolab@emsl.com

**EMSL Order:** 091710744
**Customer ID:** BASL62
**Customer PO:** 17E1252
**Project ID:**

**Attention:** Ricky Jensen
Basic Laboratory, Inc.
2218 Railroad Avenue
Redding, CA 96001

**Project:** 17E1252

**Phone:** (530) 243-7234
**Fax:** (530) 894-5143
**Received Date:** 05/31/2017 10:15 AM
**Analysis Date:** 06/14/2017
**Collected Date:** 05/24/2017

## *Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy*

| Sample | Description | Appearance | Non-Asbestos % Fibrous | Non-Asbestos % Non-Fibrous | Asbestos % Type |
|---|---|---|---|---|---|
| 17E1252-01<br>*091710744-0001* | S-1 | Gray/Green<br>Non-Fibrous<br>Homogeneous | | 55% Non-fibrous (Other) | 45% Chrysotile |
| 17E1252-02<br>*091710744-0002* | S-2 | Gray/Green<br>Non-Fibrous<br>Homogeneous | | 10% Quartz<br>60% Gypsum<br>30% Non-fibrous (Other) | None Detected |
| 17E1252-03<br>*091710744-0003* | S-3 | Gray<br>Non-Fibrous<br>Homogeneous | | 10% Quartz<br>60% Gypsum<br>30% Non-fibrous (Other) | None Detected |

Analyst(s)
*Jared Martin (3)*

Matthew Batongbacal
or Other Approved Signatory



Report amended: 06/14/2017 11:42:28 Replaces initial report from: 06/14/2017 09:47:39 Reason Code: Client-Other (see report comment)

17E1252

1

17E1252

# BASIC LABORATORY CHAIN OF CUSTODY RECORD

2218 Railroad Avenue, Redding, CA 96001 (530) 243-7234 FAX (530) 243-7494

LAB #: ~~17E0~~ DO

CLIENT NAME: VESTRA Resources Inc.

PROJECT NAME: Brown Quarry

PROJECT #: 71117

PAGE 1 OF 1

MAILING ADDRESS: -On File-

REPORT DUE DATE: 6-21-17

TURN AROUND TIME: (Standard) Rush

# OF SAMPLES: 3

ANALYSIS REQUESTED

MATRIX / TYPE: S

PROJECT MANAGER: Wendy Johnston

CUSTODY SEAL INTACT? Yes No N/A

PHONE: 530-223-2585

EMAIL: wjohnston@vestra.com; jantognini@vestra.com

SYSTEM #:

FAX:

RESULTS SENT: (Email) Fax EDD (Mail)

EDD TYPE:

INVOICE TO: VESTRA

PO#:

QC: Standard Level II

| SAMPLE DATE | SAMPLE TIME | WATER | COMP | SOLID | SAMPLE LOCATION / IDENTIFICATION | NUMBER OF BOTTLES | Bulk Asbestos (PLM) % | LAB ID | CHLORINE RESIDUAL OR COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| 5/24 | 1100 | | | X | S-1 | 1 | X | 1 | |
| ↓ | 1130 | | | ↓ | S-2 | ↓ | ↓ | 2 | |
| ↓ | 1210 | | | ↓ | S-3 | ↓ | ↓ | 3 | |

PRESERVED WITH: $HNO_3$ $H_2SO_4$ NaOH ZnAce/NaOH HCL NaThio (OTHER) 0

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT): Jason Antognini | SAMPLE DATE/TIME: 5/24; 1100 | RELINQUISHED BY: | DATE/TIME: 5/30; 1525 |
| RECEIVED BY: | DATE/TIME: | RELINQUISHED BY: | DATE/TIME: |
| RECEIVED BY (LAB): | DATE/TIME: 5.30.17 15:24 | PROCESSED AND VERIFIED BY: | DATE/TIME: 5.30.17 15:24 |
| LOGGED IN BY: | DATE/TIME: 5.30.17 15:24 | CARRIER: | COOLER TEMPERATURE: °C |

INSTRUCTIONS, TERMS AND CONDITIONS ON BACK.

SAMPLE TYPE: 1 = ROUTINE, 2 = REPEAT, 3 = REPLACEMENT, 4 = SPECIAL 5 = RAW