

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REVISED TECHNICAL REPORTING ORDER R5-2009-0869
CALIFORNIA WATER CODE SECTION 13267

FOR

**MOUNT DIABLO MERCURY MINE
CONTRA COSTA COUNTY**

This Order is issued to Jack and Carolyn Wessman; the Bradley Mining Co.; the U.S. Department of Interior; and Sunoco, Inc (hereafter collectively referred to as Dischargers) pursuant to California Water Code section 13267, which authorizes the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board or Board) to issue Orders requiring the submittal of technical reports, and CWC section 7, which authorizes the delegation of the Executive Officer's authority to a deputy, in this case the Assistant Executive Officer. This Order revises and replaces the previous Order issued on 1 December 2009.

The Assistant Executive Officer finds:

BACKGROUND

1. The Mount Diablo Mercury Mine (Mine Site) is an inactive mercury mine, located on approximately 109 acres on the northeast slope of Mount Diablo in Contra Costa County. Acid mine drainage containing elevated levels of mercury and other metals is being discharged to a pond that periodically overflows into Horse and Dunn Creeks. Further investigation is required to assess the extent of pollution discharged from the Mine Site and to evaluate remedial options. The Site Investigation and Remedial Option Evaluation are needed steps that must be taken to restore the impacted waters of the state and to protect public health and the environment.
2. Presently, the Mine Site consists of an exposed open cut and various inaccessible underground shafts, adits, and drifts. Extensive waste rock piles and mine tailings cover the hill slope below the open cut, and several springs and seeps discharge from the tailings-covered area. Three surface impoundments at the base of the tailings capture most spring flow and surface runoff. However, during winter, the ponds routinely spill into Horse and Dunn Creeks, which drain to the Marsh Creek watershed.
3. Section 303(d) of the Federal Clean Water Act requires states to identify waters not attaining water quality standards (referred to as the 303(d) list). Marsh Creek has been identified by the Central Valley Water Board as an impaired water body because of high aqueous concentrations of mercury.

OWNERSHIP AND OPERATOR HISTORY

4. Jack and Carolyn Wessman have owned the Mine Site from 1974 to the present. The Wessmans have made some improvements to reduce surface water exposure to tailings and waste rock, including the construction of a cap over parts of the tailings/waste rock piles. Although these improvements have been made without an engineering design or approved plan, these improvements may have reduced some of the impacts from the Mine Site. However, discharges that contain elevated mercury levels continue to impact the Mine Site and site vicinity.
5. Bradley Mining Company operated the Mine Site from 1936 to 1947, producing around 10,000 flasks of mercury. During operations Bradley Mining Company developed underground mine workings, discharged mine waste rock, and generated and discharged mercury ore tailings.
6. The U.S. Department of the Interior created the Defense Minerals Exploration Administration (DMEA) out of the Defense Minerals Agency in 1951. The DMEA was created to provide financial assistance to explore for certain strategic and critical minerals. The DMEA contracted with private parties to operate the Mine Site under cost-sharing agreements from 1953 to 1954. The initial cost sharing was with the Ronnie B. Smith Trust, which implemented a partnership formed by Jene Harper and James Dunnigan. Although it is unclear whether the mine was operated under the DMEA contract, the Smith partnership produced approximately 102 flasks of mercury. John L. Jonas and John E. Johnson assumed the DMEA contract in 1954, Jonas and Johnson produced 21 flasks of mercury.
7. The Cordero Mining Company operated the Mine Site from approximately 1954 to 1956, and was responsible for sinking a shaft, driving underground tunnels that connected new areas to pre-existing mine workings, and discharging mine waste. The amount of mercury production from this time period is unknown. The United States Environmental Protection Agency (USEPA), Region IX, named Sunoco Inc. a responsible party for Mount Diablo Mercury Mine in the Unilateral Administrative Order for the Performance of a Removal Action, USEPA Docket No. 9-2009-02, due to its corporate relationship to the Cordero Mining Company.
8. Nevada Scheelite Company, a subsidiary of Kennametal Inc., operated at the Mount Diablo Mercury Mine in 1956. The extent of operations and the amount of production for this period is unknown. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.
9. Victoria Resources Corp., now Victoria Gold Corp., owned the Mount Diablo site from 1960 to 1969. The extent of operations and the amount of production for this period is unknown. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.

10. The Guadalupe Mining Company owned the Mine site from 1969 to 1974. The extent of operations and amount of production for this period is unknown. However, discharges have occurred from runoff from the mine waste piles and likely springs associated with the mine working.

LEGAL PROVISIONS

11. The Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, 4th Edition* (Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives (WQOs) to protect these uses, and establishes implementation policies to implement WQOs. The designated beneficial uses of Marsh Creek, which flows into Sacramento and San Joaquin Delta are domestic, municipal, industrial and agricultural supply.
12. CWC section 13267 states, in part:
 - (b)(1) In conducting an investigation, the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

As described in Findings Nos. 4 – 7, the Dischargers are named in this Order because all have discharged waste at the Mine Site through their actions and/or by virtue of their ownership of the Mine Site. The reports required herein are necessary to formulate a plan to remediate the wastes at the Mine Site, to assure protection of waters of the state, and to protect public health and the environment.

13. CWC section 13268 states, in part:
 - (a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 . . . or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).
 - (b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.
 - (c) Any person discharging hazardous waste, as defined in Section 25117 of the Health and Safety Code, who knowingly fails or refuses to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or who knowingly falsifies any information provided in those technical or monitoring program reports, is guilty of a misdemeanor, may be

civily liable in accordance with subdivision (d), and is subject to criminal penalties pursuant to subdivision (e).

(d)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (c) in an amount which shall not exceed five thousand dollars (\$5,000) for each day in which the violation occurs.

As described above, failure to submit the required reports to the Central Valley Water Board according to the schedule detailed herein may result in enforcement action(s) being taken against you, which may include the imposition of administrative civil liability pursuant to CWC section 13268. Administrative civil liability of up to \$5,000 per violation per day may be imposed for non-compliance with the directives contained herein.

IT IS HEREBY ORDERED that, pursuant to California Water Code section 13267, the Dischargers shall submit the following technical reports:

1. **By 1 April 2010**, submit a *Mining Waste Characterization Work Plan* (hereafter *Characterization Plan*) for the Mine Site. The Characterization Plan shall be a plan to assess both the nature and extent of mining waste at the Mine Site, and the potential threat that this mining waste poses to water quality and/or human health. The Characterization Plan shall describe the methods that will be used to establish background levels for soil, surface water, and ground water at the site, and the means and methods for determining the vertical and lateral extent of the mining waste.

The Characterization Plan shall also address slope stability of the Mine Site, and shall assess the need for slope design and slope stability measures to minimize the transport of mining waste-laden soils to surface water and ephemeral streams.

2. **By 1 September 2010**, submit a *Mining Waste Characterization Report* (hereafter *Characterization Report*), characterizing the data gathered pursuant to the investigation described in the Characterization Plan. The Characterization Report shall include:
 - a. A narrative summary of the field investigation;
 - b. A section describing background soil concentrations, mining waste concentrations, and the vertical and lateral extent of the mining waste;
 - c. Surface water and ground water sampling results;
 - d. A section describing slope stability and erosion potential and recommendations for slope stabilization;
 - e. An evaluation of risks to human health from site conditions, and;
 - f. A work plan for additional investigation, if needed, as determined by Board staff. If no additional investigation is needed, this report shall be the Final Characterization Report.

3. Within **90 days** of staff concurrence with the Characterization Report, submit a *Site Remediation Work Plan* (hereafter *Remediation Plan*) for the site. The Remediation Plan shall describe remediation activities to clean up or remediate the mining waste either to background concentrations, or to the lowest level that is technically and economically achievable. The Remediation Plan shall also address long-term maintenance and monitoring necessary to confirm and preserve the long-term effectiveness of the remedies. The potential remediation activities shall comply with all applicable WQOs in the Basin Plan. The Remediation Plan shall also include:
 - a. An evaluation of water quality risk assessment:
 - b. A human health risk assessment:
 - c. A time schedule to conduct the remediation activities.

REPORTING

4. When reporting the data, the Dischargers shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly the compliance with this Order.
5. Fourteen days prior to conducting any fieldwork, submit a Health and Safety Plan that is adequate to ensure worker and public safety during the field activities in accordance with California Code of Regulations, title 8, section 5192.
6. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional or their subordinate and signed by the registered professional.
7. All reports must be submitted to the Central Valley Water Board. Electronic copies of all reports and analytical results are to be submitted over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at <http://geotracker.swrcb.ca.gov>. Electronic copies are due to GeoTracker concurrent with the corresponding hard copy. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site.
8. Notify Central Valley Water Board staff at least five working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day.

Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

This Order is effective upon the date of signature.

Order by:

Original signed by

KENNETH LANDAU Assistant Executive Officer

30 December 2009

(Date)