

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER No. R2-2016-0025

**RESCISSION OF SITE CLEANUP REQUIREMENTS (ORDER No. 97-145) for:
LOCKHEED MARTIN CORPORATION (MISSILES & SPACE) and
SOBRATO DEVELOPMENT COMPANIES**

for the property located at:

1235 ELKO DRIVE
SUNNYVALE, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), finds that:

1. **Regional Water Board Order:** The Regional Water Board adopted Order No. 97-145, final site cleanup requirements for the site located at 1235 Elko Drive, Sunnyvale (Site), on December 17, 1997. This order names Lockheed Martin Corporation (Missiles & Space), a legacy Lockheed Martin Corporation business entity, and Sobrato Development Companies as dischargers.
2. **Compliance with Board Order:** Order No. 97-145 required the dischargers to define the extent of pollution at the Site and implement a remedial action plan. The dischargers have completed these tasks.
3. **Basis for Rescission:** Rescission of Order No. 97-145 is appropriate for the following reasons:
 - a. **Pollution sources are identified and evaluated.** The pollution source was a release of trichloroethene (TCE) and its breakdown products from two former sumps in the machine shop area in the northwestern portion of the Site's existing building. TCE and the breakdown products are collectively referred to as chlorinated volatile organic compounds (CVOCs). In the shallow zone, relatively elevated groundwater-CVOCs in off-property well PZ-4 have been detected since the 1990s. Investigations of the south planter box located directly upgradient from PZ-4 did not encounter a CVOC source in the planter box. The residual elevated soil-CVOCs under the northwest corner of the on-property building may be the source of the relatively elevated CVOCs in PZ-4.
 - b. **The Site is adequately characterized.** The Site was adequately characterized vertically and horizontally through a series of soil, groundwater, soil vapor, and indoor air investigations. Thirty-nine boreholes were advanced inside the onsite building and thirty-two boreholes were advanced outside the building. Nine monitoring wells were installed in the shallow groundwater zone downgradient and cross-gradient from the source area. The shallow groundwater zone extends

from approximately 9 to 20 feet below ground surface (bgs) with static water levels ranging from approximately 6 to 11 feet bgs under semi-confined conditions. There is a 55-foot thick aquitard under the shallow zone, as reported for the adjacent former Western Microwave site. A groundwater sample from the water-bearing zone under the aquitard indicated non-detectable levels of CVOCs. Five soil vapor monitoring points were installed near the source area, and indoor air testing was performed in the onsite building.

- c. **Exposure pathways, receptors, and potential risks, threats, and other environmental concerns are identified and assessed.** The Site and the downgradient area are zoned for commercial/industrial use. The Site has been redeveloped with the construction of a one-story commercial building and paved parking areas. The shallow groundwater beneath the Site is not currently used for drinking water. The CVOC plume does not threaten deeper groundwater aquifers that are used for drinking water due to the presence of an extensive regional aquitard separating the shallow and deeper aquifers. There are no public water supply wells located within one mile of the Site. The nearest surface water body, Calabazas Creek, is located 600 feet east of the Site. Vapor intrusion is discussed in finding 3.e.
- d. **Pollution sources are mitigated to the extent feasible.** The two sumps were removed and accessible contaminated soil in the source area was excavated during closure activities in 1992. A groundwater extraction and treatment system operated at the Site from 1994 to 2013 to remediate the shallow zone. The treatment system removed 8.1 pounds of CVOCs. The system was shut down because its removal efficiency had decreased considerably.
- e. **Unacceptable risks to human health, ecological health, and sensitive receptors, considering current and future land and water uses, are mitigated.** Based on groundwater sampling conducted in 2014, TCE levels near the building are below the commercial environmental screening level (ESL) for vapor intrusion. Based on soil vapor sampling conducted in 2008, TCE levels exceeded the commercial ESL in soil vapor samples SG-1 through SG-5 located near the source area. However, based on indoor air sampling conducted in 2008 through 2012, CVOCs either were not detected or were less than their ESLs. Therefore, vapor intrusion under the current commercial/industrial land use is not a concern.
- f. **Unacceptable threats to groundwater and surface water resources, considering existing and potential beneficial uses, are mitigated.** The shallow groundwater plume is not impacting any surface water bodies or drinking water wells. All onsite groundwater monitoring wells need to be properly destroyed. As discussed in finding 3.c, shallow groundwater beneath the Site is not currently used for drinking water, and an extensive regional aquitard separates the shallow and impacted aquifer from the deeper water supply aquifer.
- g. **Groundwater plume is decreasing.** Remediation greatly decreased the levels of groundwater-CVOCs. Monitoring results over the past 21 years indicate that the size of

the groundwater plume at the Site has decreased steadily. The table below shows the current maximum groundwater-CVOC levels in the shallow zone. Groundwater extraction and natural attenuation have decreased the on-property maximum groundwater-TCE level of 1,900 micrograms per liter (ug/L) to 60 ug/L. The off-property groundwater-CVOC levels decreased from 790 ug/L to 230 ug/L in well PZ-4.

Maximum On-Property 2014 Groundwater Levels (ug/L)				
	TCE	c-DCE	t-DCE	VC
Shallow Zone	60	6	0.72	0.58
California MCL	5	6	10	0.5
Notes: ug/L = micrograms per liter MCL = Maximum Contaminant Levels for drinking water TCE = trichloroethene t-DCE = trans-1,2-dichloroethene VC = vinyl chloride				

- h. **Cleanup standards can be met within a reasonable timeframe.** Natural attenuation is expected to reduce remaining Site-related contaminant concentrations in shallow groundwater to below drinking water standards before the shallow groundwater will be used as a source of drinking water.
 - i. **Risk management measures are appropriate, documented, and do not require future Regional Water Board oversight.** Lockheed recorded a deed restriction in June 1998 that prohibits sensitive land use and use of groundwater. Lockheed recorded a deed restriction amendment on January 2016 that restricts the use of the property such that all uses and development shall be consistent with the approved April 2016 Risk Management Plan (RMP). The approved RMP contains procedures to address potential future redevelopment including soil investigation and remediation and vapor intrusion evaluation and mitigation, if needed.
4. **Next Steps Prior to Case Closure:** Monitoring wells owned by the dischargers need to be properly closed before this case is closed by the Regional Water Board, to eliminate vertical conduits for potential future groundwater contamination.
 5. **California Safe Drinking Water Policy:** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy because maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use are and will continue to be met in existing and future supply wells. The extent of contamination from the Site does not reach water supply wells and is not expected to migrate to water supply wells at levels above the maximum

contaminant levels. A deed restriction has been recorded to ensure no contact with the contaminated groundwater.

6. **CEQA.** This action rescinds an order to enforce the laws and regulations administered by the Regional Water Board. Rescission of the order is not a project as defined in the California Environmental Quality Act (CEQA). There is no possibility that the activity in question may have a significant effect on the environment. (Cal. Code Regs., tit. 14 §§ 15378 and 15061, subd. (b) (3).)
7. **Notification:** The Regional Water Board has notified the dischargers and all interested agencies and persons of its intent under Water Code section 13304 to rescind site cleanup requirements for the discharge and has provided them with an opportunity to submit their written comments.

IT IS HEREBY ORDERED, pursuant to section 13304 of the Water Code, that Order No. 97-145 is rescinded.

IT IS FURTHER ORDERED that the dischargers shall properly close all monitoring and extraction wells consistent with applicable local agency requirements and shall document such closure in a technical report to be submitted to the Regional Water Board within 30 days following the completion of closure activities.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on May 26, 2016.

Bruce H. Wolfe
Executive Officer

Failure To Comply With The Requirements Of This Order May Subject You To Enforcement Action, Including But Not Limited To: Imposition Of Administrative Civil Liability Under Water Code Sections 13268 Or 13350, Or Referral To The Attorney General For Injunctive Relief Or Civil Or Criminal Liability
