



## Department of Toxic Substances Control

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Secretary for  
Environmental Protection

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Greg Haet, P.E.  
EH&S Associate Director, Environmental Protection  
Office of Environment, Health & Safety  
University of California, Berkeley  
University Hall, 3<sup>rd</sup> Floor, #1150  
Berkeley, California 94720

Dear Mr. Haet:

The Department of Toxic Substances Control (DTSC) received the *Draft 2018 Groundwater Sampling Results Technical Memorandum* (Draft Memorandum); dated July 27, 2018, for the Richmond Field Station, located in Richmond, California. The Draft Memorandum was prepared by Tetra Tech, Inc. on behalf of The University of California, Berkeley, and describes the results of annual groundwater monitoring and maintenance conducted between October 2017 and April 2018. Field work included groundwater level measurements collected in October 2017 (54 shallow-zone piezometers and 4 deep piezometers) and April 2018 (52 shallow-zone piezometers and 3 deep-zone piezometers), and collection of groundwater samples from 34 shallow-zone piezometers in April 2018. DTSC has reviewed the Draft Memorandum and has the following comments:

1. Page 3, Section 2.2 Groundwater Sampling: This section states that groundwater samples were collected and placed in coolers containing ice. At the end of every other field day, the samples were then delivered to the analytical laboratory. Provide a description stating where the samples were stored, and how chain-of-custody and proper preservation was maintained.
2. Section 5.3.1 Sample Delivery Group 298607: This section indicates that the chain-of-custody form did not include a sample analysis request for sample 20180503PZ9, and two VOA vials labeled "TB" were not listed on the COC form. The laboratory made assumptions and analyzed the samples for VOCs. Indicate what corrective measures will be instituted for future sampling events to ensure that similar incidents do not occur.
3. Section 5.3.2 Sample Delivery Group 298682: This section states that one sample arrived at the laboratory without identifying information on the label. The laboratory

was able through the process of elimination to identify the sample. Indicate what corrective measures will be instituted for future sampling events to ensure that a similar incident does not occur.

4. Section 5.3.1 and 5.3.2: Both sections state that VOA vials contained air bubbles. Indicate whether modification to sample collection procedures can be made to eliminate the bubbles from the vials. Also, both VOAs used as the trip blank for sample delivery group 298607 contained air bubbles. If the laboratory is preparing trip blanks, all VOA vials should be inspected and those with air bubbles should be rejected by the sampling team. If the trip blanks are being prepared by the sampling team, they should also be inspected and any containing bubbles should be rejected. Indicate in the Technical Memorandum what corrective measures will be instituted for future sampling events.
5. Page 16, Trichloroethene: The text references figure 22 in the discussion; however, figure 25 presents TCE concentrations. Revise the text.

Please provide a revised document within 45 days of the date of this letter that responds to the above comments.

If you have any questions, please contact Lynn Nakashima at (510) 540-3839 or [lynn.nakashima@dtsc.ca.gov](mailto:lynn.nakashima@dtsc.ca.gov).

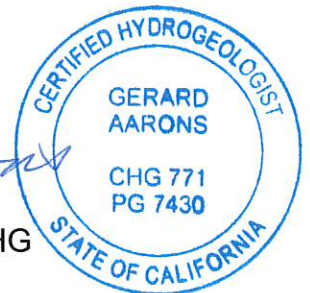
Sincerely,



Lynn Nakashima, Project Manager  
Senior Hazardous Substances Scientist  
Site Mitigation and Restoration Program  
Berkeley Office - Cleanup Operations



Gerard F. Aarons, PG, CHG  
Engineering Geologist  
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