

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TECHNICAL REPORTING ORDER NO. R5-2009-0824
CALIFORNIA WATER CODE SECTION 13267
FOR
VERN'S GROVELAND GASOLINE
18707 HIGHWAY 120, GROVELAND
TUOLUMNE COUNTY

This Order is issued to Vern's Groveland Gasoline (hereafter Discharger) 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) to issue an Order (Order) to submit technical reports.

The Executive Officer finds:

INTRODUCTION

1. The Discharger owns and operates a gasoline service station at 18707 Highway 120 in Groveland in Tuolumne County (hereafter Site).
2. On 14 October 1993, three 3,000-gallon gasoline underground storage tanks (USTs), one 1,000-gallon gasoline UST, and one 1,000-gallon diesel UST were removed from the Site. At that time, maximum soil concentrations under the gasoline USTs included 490 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons as gasoline (TPHg), 4.2 mg/kg of benzene, 37 mg/kg of toluene, 13 mg/kg of ethyl benzene, and 74 mg/kg of total xylenes. Maximum concentrations in the soil samples under the diesel USTs include 800 mg/kg of TPHg, 400 mg/kg of TPH as diesel (TPHd), 3.1 mg/kg of benzene, 41 mg/kg of toluene, 18 mg/kg of ethyl benzene, and 98 mg/kg of total xylenes.
3. On 24 November 1993, about 115 cubic yards of soil were removed from the gasoline UST pit. The final depth of the excavation was 11 feet below ground surface (bgs), and groundwater was at nine feet bgs. A 12,000-gallon gasoline UST was later installed in the excavation, and in 1995, seven groundwater monitoring wells were installed at the Site.
4. In January 1995, petroleum hydrocarbon odors were detected in the basement sump of the Groveland Community Hall, which is across Highway 120 from the Site. Monitoring well MW-6 is adjacent to the Community Hall, and that building's basement lies between two and eight feet bgs. The Community Hall was built in the early 1900s. The floor of the Community Hall is below the water table, and troughs and a sump were installed in the basement floor to collect groundwater that seeps through the front wall and floor. Originally, a french drain and a drain pipe directed the collected water away from the basement floor and building. The french drain eventually silted in and was no longer effective.

5. Water from the Community Hall basement sump flows through a two-inch diameter pipe that leads toward the creek behind the building. On 8 February 1995, Central Valley Water Board staff collected a sample from the sump. The sample contained 190,000 µg/l of TPHg, 25,000 µg/l of TPHd, 2,800 µg/l of benzene, 7,100 µg/l of toluene, 1,900 µg/l ethyl benzene, and 19,000 µg/l total xylenes. In April 1995, a hood was constructed over the sump to vent the fumes, and two 55-gallon carbon canisters were installed to treat the water flowing from the sump towards the creek.
6. In 1998, three extraction wells were installed onsite and two onsite monitoring wells were converted to extraction wells. From February 1998 to December 1999, a dual-phase extraction system operated at the Site, and after that, the system operated as a groundwater extraction system until April 2000.
7. In January 2002, the groundwater extraction system was restarted when concentrations continued to increase in the Community Hall treatment system. In May 2003, a portable soil vapor extraction system was added to the onsite treatment system, along with injection of 800 pounds of oxygen-releasing compound into the saturated zone. This treatment system operated until June 2004, and the Community Hall system operated until March 2007. At that time, all work stopped.
8. As of March 2007, benzene and methyl tertiary butyl ether (MTBE) continued to be detected in Site wells. In addition, offsite well MW-6 (adjacent to the Community Hall) contained 150 µg/l of MTBE, and the concentrations in this well had been increasing during the previous four years of monitoring. No samples have been collected from any of the wells since March 2007.

LEGAL PROVISIONS

9. 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.

The reports required herein are necessary for the reasons described in this Order, to assure protection of waters of the state, and to protect public health and the environment.

10. 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.

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 \$1,000 per violation per day may be imposed for non-compliance with the directives contained herein.

11. The California Code of Regulations, title 23, section 2720, defines a responsible party as:

... any person who owns or operates an underground storage tank used for the storage of an hazardous substance... any person who owned or operated the underground storage tank immediately before the discontinuation of its use... any owner of property where an unauthorized release of a hazardous substance from an underground storage tank has occurred, and any person who had or has control over a underground storage tank at the time of or following an unauthorized release of a hazardous substance.

A responsible party has a legal obligation to investigate and remediate contamination. Vern's Groveland Gasoline is subject to this Order because it owns the property and operates the station where an unauthorized release of a hazardous substance from a UST has occurred. Therefore, Vern's Groveland Gasoline is a "person who has discharged ... waste" within the meaning of CWC section 13267.

12. Compliance with Central Valley Water Board directives is mandatory in order to be eligible for reimbursement of corrective action costs from the State's Underground Storage Tank Cleanup Fund according to California Code of Regulations, title 23, section 2812.2. All work should be performed according to the *Tri-Regional Recommendations for Preliminary Investigation and Evaluation of Underground Storage Tank Sites*, and permits required by State, County, and Local agencies. All reports must be submitted to the Central Valley Water Board.

13. State Water Board Resolution No. 2009-0042 directs the Regional Water Boards to reduce monitoring requirements for UST cleanup sites to semi-annually or less frequent, unless site-specific needs warrant otherwise. Because all sampling at the Site ceased in 2007, the current concentration baselines and trends are unknown. Therefore, quarterly sampling and reporting are needed to quickly re-

establish baseline conditions and identify trends in groundwater so that a determination may be made on any additional investigation and/or remediation needs.

14. 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, the petition must be received by the State Water Board by 5:00 p.m. on the next business day.
15. 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 they will be provided upon request.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to CWC section 13267, the Discharger shall:

1. Submit **Quarterly Groundwater Monitoring Reports**, both paper copies to this office and electronic copies to the State Water Resources Control Board's (State Water Board) GeoTracker database (see Reporting Section below). Beginning in the first quarter of 2011, monitoring shall take place semi-annually.

The first Quarterly Monitoring Report (QMR), which is due by **30 October 2009**, shall include an evaluation of the previously observed increasing MTBE trends in offsite well MW-6. Sample results from 2006 and 2007 shall be compared to those from the third quarter 2009 sampling event, and if possible, conclusions drawn regarding contaminant migration, degradation, etc. Additionally, the 30 October QMR shall include a **Human Health Risk Assessment** that evaluates all exposure pathways, in particular the potential exposure to people in the Groveland Community Hall.

As shown on Figure 1, which is attached hereto and made part of this Order, there are 10 groundwater monitoring and extraction wells associated with the Site (MW-1, MW-2/RW-1, MW-3/RW-4, MW-4, MW-5, MW-6, MW-7, RW-2, RW-3, and RW-5). The groundwater monitoring program for the 10 wells and any wells installed subsequent to the issuance of this Order, shall follow the schedule below.

Wells with free phase petroleum product or a visible sheen shall be monitored, at a minimum, for product thickness and depth to water, and the volume of extracted free phase product and groundwater shall be documented in the monitoring reports. Sample collection and analysis shall follow standard EPA protocol.

Constituents	EPA Analytical Method	Maximum Practical Quantitation Limit ¹ (µg/l)	Sampling Frequency ²
Depth to Groundwater	---	---	Quarterly
Total Petroleum Hydrocarbons as gasoline and diesel	8015M	50	Quarterly
Benzene	8020 or 8260B	0.5	Quarterly
Toluene	8020 or 8260B	0.5	Quarterly
Ethylbenzene	8020 or 8260B	0.5	Quarterly
Xylene	8020 or 8260B	0.5	Quarterly
MTBE	8260B	0.5	Quarterly
Naphthalene	8260B	0.5	Quarterly

¹ For nondetectable results. All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as trace.

² Beginning with the first quarter of 2011, monitoring frequency shall be semi-annually in the first and third quarters.

REPORTING

2. When reporting data, the Discharger 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.
3. 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.
4. The Discharger shall submit quarterly hard-copy monitoring reports to the Central Valley Water Board by the **30th day of the first month following the end of each quarter (i.e. by 30 January, 30 April, 30 July and 30 October)** until such time as the Executive Officer determines that the reports are no longer necessary. In addition, concurrently with the hard-copy reports, the Discharger shall submit electronic copies of the reports and electronic data reports, which conform to the requirements of the California Code of Regulations, Title 23, Division 3, Chapter 30, over the Internet to the State Water Board's Geographic Environmental Information Management System (Geotracker) database system at <https://geotracker.waterboards.ca.gov>. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site. All reports must follow the *Appendix A - Reports, Tri-Regional Recommendations for Preliminary Investigation and Evaluation of Underground Storage Tank Sites* (Appendix A - Reports), which is attached and made a part of this Order. Each quarterly report shall include the following minimum information:
 - a) A description and discussion of the groundwater sampling event and results, including trends in the concentrations of pollutants and groundwater elevations

- in the wells, how and when samples were collected, and whether the pollutant plume(s) is delineated.
- b) Field logs that contain, at a minimum, water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, etc.
 - c) Groundwater contour maps for all groundwater zones, if applicable.
 - d) Isocontour pollutant concentration maps for all groundwater zones, if applicable.
 - e) A table showing well construction details such as well number, groundwater zone being monitored, coordinates (longitude and latitude), ground surface elevation, reference elevation, elevation of screen, elevation of bentonite, elevation of filter pack, and elevation of well bottom.
 - f) A table showing historical lateral and vertical (if applicable) flow directions and gradients.
 - g) Cumulative data tables containing the water quality analytical results and depth to groundwater.
 - h) A copy of the laboratory analytical data report.
 - i) If applicable, the status of any ongoing remediation, including cumulative information on the mass of pollutant removed from the subsurface, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system.
 - j) If applicable, the reasons for and duration of all interruptions in the operation of any remediation system, and actions planned or taken to correct and prevent interruptions.
5. An Annual Report shall be submitted to the Central Valley Water Board by **30 January** of each year and may be substituted for the fourth quarter monitoring report. This report shall contain an evaluation of the effectiveness and progress of the investigation and remediation. The Annual Report shall contain the following minimum information:
- a) Both tabular and graphical summaries of all data obtained during the year.
 - b) Groundwater contour maps and pollutant concentration maps containing all data obtained during the previous year.
 - c) A discussion of the long-term trends in the concentrations of the pollutants in the groundwater monitoring wells.

- d) An analysis of whether the pollutant plume is being captured by an extraction system or is continuing to spread.
 - e) A description of all remedial activities conducted during the year, an analysis of their effectiveness in removing the pollutants, and plans to improve remediation system effectiveness.
 - f) An identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
 - g) If desired, a proposal and rationale for any revisions to the groundwater sampling plan frequency and/or list of analytes.
8. The results of any monitoring done more frequently than required at the locations specified in the MRP also shall be reported to the Central Valley Water Board. The Discharger shall implement the above monitoring program as of the date of the Order.

This Order is effective upon the date of signature.

Ordered by:

original signed by
PAMELA C. CREEDON
Executive Officer

June 15, 2009

(Date)