



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

October 23, 2015

Ms. Nicole Arceneaux
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CLAIM NO.: 7014 2870 0001 4613 0941

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER REMEDIATION AT PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR HEXAVALENT CHROMIUM IMPACTED SITES

76 STATION NO. 5066

2861 MOORPARK ROAD, THOUSAND OAKS

CASE NO. C-88048; GLOBAL ID NO. T0611100298; PRIORITY C-1

ORDER NO. R4-2014-0187; SERIES NO. 038; CI NO. 10171

Dear Ms. Arceneaux:

We are in receipt of your application for coverage under the General Waste Discharge Requirements (WDR) utilizing enhanced anaerobic biological oxidation (ABOx) for groundwater remediation.

The site is an active fuel dispensing service station located at the northwest corner of the intersection of Moorpark Road and Avenida de Los Arboles in Thousand Oaks, California. In 1986, one 280-gallon waste-oil and two 10,000-gallon gasoline underground storage tanks were removed. The current station features include two 12,000-gallon gasoline underground storage tanks, four fuel dispenser islands, product piping, and a station kiosk.

The data from the most recent groundwater sampling event indicated elevated total petroleum hydrocarbons as gasoline (TPH_G), total petroleum hydrocarbons as diesel (TPH_D), benzene, and ethylbenzene concentrations. The maximum reported TPH_G, TPH_D, benzene, and ethylbenzene concentrations were 42,000 µg/L (TPH_G), 3,200 µg/L (TPH_D), 7,600 µg/L (benzene), and 7,100 µg/L (ethylbenzene).

Our letter dated February 23, 2015, approved with conditions the Remedial Action Plan (RAP) dated August 2014, submitted by AECOM. The RAP proposed to conduct a sulfate infiltration pilot study to determine the effectiveness of ABOx in promoting the biodegradation of petroleum hydrocarbons. The RAP proposed to utilize existing air sparging and soil vapor extraction wells in the pilot study for the infiltration of an Epsom Salt (magnesium sulfate) solution. If the pilot test is successful in reducing hydrocarbon concentrations, the infiltration procedures proposed in the RAP shall be repeated on a schedule that will be based on the rate of sulfate reduction observed in the pilot test study.

We have completed our review of your application and determined that the proposed injection meets the conditions specified in Order No. R4-2014-0187, "General Waste Discharge

CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

October 23, 2015

Requirements for In-Situ Groundwater Remediation and Groundwater Re-Injection" adopted by the Los Angeles Regional Water Quality Control Board (Regional Board) on September 11, 2014.

Enclosed is your WDR, consisting of the General WDR R4-2014-0187, including the Revised Monitoring and Reporting Program (MRP) CI No. 10171 and Standard Provisions.

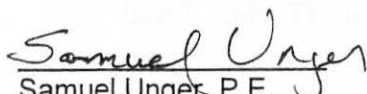
All technical monitoring reports submitted to the Regional Board per these requirements must reference CI No. 10171 to ensure that the reports are directed to the appropriate file and staff. Do not combine other reports with your monitoring reports; submit each type of report as a separate document.

In accordance with regulations adopted by the State Water Resources Control Board regarding electronic submittal of information, underground storage tank program monitoring reports have been electronically submitted to the State Board GeoTracker system under the UST Global ID T0611100298. To comply with the MRP under this WDR, you shall upload the WDR monitoring reports to GeoTracker under both Global ID T0611100298 and WDR100024209. For more information regarding the new Global ID under the WDR, please see ESI training video available at:
<https://waterboards.webex.com/waterboards/ldr.php?AT=pb&SP=MC&rID=44145287&rKey=7dad4352c990334b>.

To avoid paying future annual fees, please submit a written request for termination of your enrollment under the general permit in a separate letter when your project has been completed and the permit is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of each new fiscal year beginning July 1.

If you have any questions please contact Dr. Eric Wu at (213) 576-6683 or ewu@waterboards.ca.gov for issues regarding the WDR or Mr. Daniel P. Piroton at (213) 576-6714 or dpiroton@waterboards.ca.gov for regarding the underground storage tanks.

Sincerely,


Samuel Unger, P.E.
Executive Officer

Enclosures: 1. General WDR Order No. R4-2014-0187
2. Revised Monitoring and Reporting Program No. CI No. 10171

cc: Mr. Micah Reich, State Water Resource Control Board,
Underground Storage Tank Cleanup Fund
Ms. Phuong Ly, Water Replenishment District of Southern California
Mr. Chris Swartz, Phillips 66 Remediation Management
Mr. Chad Roper, AECOM

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM CI NO. 10171

FOR

76 STATION NO. 5066
2861 MOORPARK ROAD, THOUSAND OAKS, CALIFORNIA
(SULFATE INJECTION FOR GROUNDWATER CLEANUP)
(ORDER NO. R4-2014-0187, SERIES NO. 038)

I. REPORTING REQUIREMENTS

- A. Chevron Environmental Management Company (hereinafter Discharger) shall implement this monitoring program on the effective date of this Monitoring and Reporting Program (MRP). The first monitoring report under this MRP, for the period from July to December 2015, shall be received at the Regional Board by January 15, 2016. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
January – June	July 15
July – December	January 15

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP to the State Water Resources Control Board (SWRCB) GeoTracker database, Attention: Information Technology Unit.

If there is no discharge or injection during any reporting period, the report shall so state.

- B. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board (State Board) Division of Drinking Water - Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal certification is obtained from ELAP.
- C. The method limits (MLs) employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Regional Board Executive Officer (Executive Officer). The Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures upon request by the Regional Board.

- D. Groundwater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All QA/QC samples must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff.
- E. Each monitoring report must affirm in writing "All analyses were conducted at a laboratory certified for such analyses by the State Board ELAP and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program." Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- F. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall be located at the front of the report and shall clearly list all non-compliance with WDRs, as well as all excursions of effluent limitations.
- G. The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- H. If the Discharger performs analyses on any groundwater samples more frequently than required by this MRP using approved analytical methods, the results of those analyses shall be included in the report.
- I. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.
- J. The Discharger should not implement any changes to the MRP prior to receiving Executive Officer's written approval.
- K. In accordance with regulations adopted by the State Board regarding electronic submittal of information, UST monitoring reports have been electronically submitted to the State Board GeoTracker system under the UST Global ID T061110298. To comply with the MRP under this WDR, the Discharger shall upload the WDRs monitoring reports to the GeoTracker system under both Global IDs T061110298 (continuing) and WDR100024209 (new).

II. MAGNESIUM SULFATE INJECTION MONITORING REQUIREMENTS

The quarterly reports shall contain the following information regarding injection activities:

1. A location map showing injection points used for the magnesium sulfate injection feasibility study. Groundwater monitoring wells shall not be used as injection points to avoid reduction of groundwater monitoring network, data bias, well screen clogging and alteration. Additional injection points for full scale application should be reviewed and approved by the Regional Board prior to full scale implementation.
2. Written and tabular summary defining the quantity of persulfate injected per month to the groundwater and a summary describing the days on which the injection system was in operation.

III. GROUNDWATER MONITORING PROGRAM

The Discharger shall conduct groundwater monitoring at the site. Groundwater samples shall be collected from all onsite and offsite wells associated with the site. Additional monitoring wells for full scale implementation may be required by the Regional Board. During the feasibility study, groundwater samples will be collected approximately forty-five and ninety days after the initial injection. Groundwater shall be monitored for the duration of the remediation in accordance with the following monitoring program:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS ¹
Total petroleum hydrocarbons as gasoline (TPH _G) and as diesel (TPH _D)	µg/L ³	Grab	Semi-Annually
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	Grab	Semi-Annually
Methyl tertiary butyl ether (MTBE), Tertiary butyl alcohol (TBA), Tertiary amyl methyl ether (TAME), Di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE)	µg/L	Grab	Semi-Annually
Naphthalene	µg/L	Grab	Semi-Annually
Ethanol, Formaldehyde Acetone	µg/L	Grab	Semi-Annually
Total dissolved solids, Arsenic, Boron, Chloride, Bromide, Sulfate, Lead, Nickel, Cadmium, Manganese	mg/L ⁴	Grab	Semi-Annually
Oxidation-reduction potential (ORP)	Millivolts	Grab	Semi-Annually
Dissolved Oxygen	µg/L	Grab	Semi-Annually

Dissolved Ferrous Iron	µg/L	Grab	Semi-Annually
Total Chromium and Hexavalent Chromium ²	µg/L	Grab	Semi-Annually
pH	pH units	Grab	Semi-Annually
Temperature	^o F/ ^o C	Grab	Semi-Annually
Groundwater Elevation	Feet, mean sea level and below ground surface	In situ	Semi-Annually

- ¹ One week before injection and semi-annually thereafter.
- ² The Discharger is required to monitor for total chromium and hexavalent chromium in the baseline, second and fourth semi-annual sampling. If detected at any of these sampling events, the total chromium and chromium six must be monitored semi-annually thereafter.
- ³ µg/L = microgram per liter.
- ⁴ mg/L = milligram per liter.

All groundwater monitoring reports must include, at a minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. Semi-annual observation of groundwater levels, recorded to 0.01 feet mean sea level, and calculated groundwater flow direction.

IV. MONITORING FREQUENCIES

Specifications in the MRP are subject to periodic revisions. Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the Discharger makes a request and the Executive Officer determines that the request is adequately supported by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the ____ day of _____ at _____.

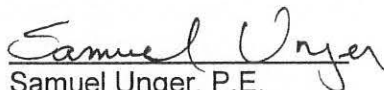
_____ (Signature)

_____ (Title)"

VI. PUBLIC DOCUMENTS

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the Regional Board, upon request by interested parties.

Ordered by:


Samuel Unger, P.E.
Executive Officer

Date: October 23, 2015