



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Agency Secretary

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

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Arnold Schwarzenegger
Governor

December 24, 2007

Mr. Roland Mora
Chevron Environmental Management Company
P.O. Box 2292
Brea, California 92822-2292

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER REMEDIATION AT PETROLEUM HYDROCARBON FUEL AND/OR HEXAVALENT CHROMIUM IMPACTED SITES - CHEVRON SITE NO. 21-1167, 3960 ARTESIA BOULEVARD, TORRANCE, CALIFORNIA (FILE NO. 905040052), CI NO. 9357, SERIES NO. 042, ORDER NO. R4-2007-0019)

Dear Mr. Mora:

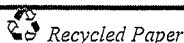
On October 26, 2007, your consultant, SAIC, submitted to us on your behalf an application for coverage under General Waste Discharge Requirements to inject hydrogen peroxide and activated persulfate (Klozur) at the subject site (the site) to remediate fuel constituents in the groundwater beneath the site.

The site is located on the southeast corner of the intersection of Artesia Boulevard and Prairie Avenue in Torrance, California. The site maintained a service building in the center of the site, three 12,000-gallon gasoline underground storage tanks (USTs) in the northwestern portion of the site, one 350-gallon used-oil UST adjacent to the station building, and two dispenser islands along the northern and western perimeter of the site. Currently, the site is the location of a Fast Lube oil-change facility, and a G&M Oil (Chevron-branded) station is located directly south of the site. A former Unocal 76 service station (No. 4599) is located north of the site and is an open case (No. 905040152). One ARCO, two ConocoPhillips (Unocal) and four ExxonMobil underground product transmission pipelines are located beneath Prairie Avenue. The San Diego Freeway (I-405) passes over Artesia Boulevard to the east of the site, with the I-405 Artesia Boulevard on-ramp and off-ramp located immediately adjacent to the eastern site boundary. Commercial and residential properties surround the site. The site operated until 1987 when the four USTs were removed from the property.

There are currently nine groundwater monitoring wells at the site. Groundwater monitoring has been conducted at the site since February 1988. The most recent round of monitoring in August 2007 showed concentrations of TPH-g, BTEX, and MTBE in groundwater of 61,000; 8,900; 14,000; 2,300; 12,000; and 20 µg/L, respectively.

To remediate the fuel constituents in the groundwater beneath the site, SAIC submitted a Corrective Action Plan (CAP) dated January 12, 2007 and a Corrective Action Plan Addendum and Injection Well Installation Workplan (WP) on April 13, 2007. In the CAP, SAIC proposed to

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Mr. Roland Mora
3960 Artesia Blvd.

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inject hydrogen peroxide and activated persulfate (Klozur) in one injection well (IW-1) (Figure 3) which will be installed at a depth of approximately 55 feet bgs. Regional Board staff approved the CAP on March 21, 2007.

Staff has reviewed the information provided and have determined that the discharge meets the conditions specified in Order No. R4-2007-0019, "*Revised General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel, Volatile Organic Compound, and/or Hexavalent Chromium Impacted Sites*," adopted by this Regional Board on March 1, 2007.

Enclosed are the Waste Discharge Requirements, consisting of Regional Board Order No. R4-2007-0019, the Monitoring and Reporting Program No. CI-9357, and Standard Provisions.

The WDRs issued shall not be rescinded until Regional Board's staff determines the WRDs are no-longer needed for the site cleanup.

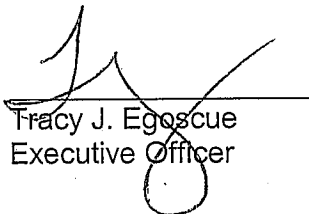
The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment (December 24, 2007) under Regional Board Order No. R4-2007-0019. All monitoring reports shall be sent to the Regional Board, ATTN: Information Technology Unit.

When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to Compliance File No. CI-9357, which will assure 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.

We are sending a copy of Order No. R4-2007-0019 only to the applicant. A copy of the Order will be furnished to anyone upon request.

If you have any questions, please contact Mr. Rodney Nelson at (213) 620-6119. Questions on UST issues should be forwarded to Arman Toumari at (213) 576-6758.

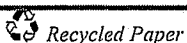
Sincerely,



Tracy J. Egoscue
Executive Officer

Enclosures: Board Order No. R4-2007-0019
Monitoring and Reporting Program No. CI-9357

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Mr. Roland Mora
3960 Artesia Blvd.

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cc: Yvonne Shanks, SWRCB, Underground Storage Tank Cleanup Fund
Nancy Matsumoto, Water Replenishment District of Southern California
Ken Lew, City of Torrance Fire Department
Brian Lynn, Property Owner, brianlynn@mac.com
Greg Leung, SAIC
Dan Truzzolino, ConocoPhillips

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

MONITORING AND REPORTING PROGRAM NO. CI-9357
FOR

CHEVRON SITE NO. 21-1167

(FILE NO. 905040052)(ORDER NO. R4-2007-0019, SERIES NO. 042)

I. REPORTING REQUIREMENTS

- A. The Chevron Site No. 21-1167 (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment (December 24, 2007) under Regional Board Order No. R4-2007-0019 (the Order). The first monitoring report under this Program is due by January 15, 2008.

Monitoring reports shall be received by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15

- B. If there is no discharge or injection during any reporting period, the report shall so state.
- C. By January 30 of each year, beginning January 30, 2007, the Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall explain the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the Order.
- D. 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 the Order. This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.
- E. The Discharger shall comply with requirements contained in Section G of the Order in addition to the aforementioned requirements.

II. INJECTION MONITORING REQUIREMENTS

The quarterly reports shall contain the following information regarding the injection activities. If there is no injection, during any reporting period, the report shall so state:

1. Location map showing injection points.
2. Written summary defining:
 - Depth of injection points;
 - Quantity of hydrogen peroxide and activated persulfate (Klozur) injected per injection point; and
 - Total amount of hydrogen peroxide and activated persulfate (Klozur) injected.
3. Monthly visual inspection at each injection well shall be conducted to evaluate the well casing integrity for a period of three months after each injection. The quarterly report shall include a summary of the visual inspection.
4. No existing groundwater monitoring wells shall be used as injection points for hydrogen peroxide and Activated persulfate (Klozur) during the remediation.

III. GROUNDWATER MONITORING PROGRAM

A groundwater-monitoring program shall be designed to detect and evaluate impacts associated with the injection activities. The following shall constitute the monitoring program: up-gradient well (MW-12); down-gradient wells (MW-13, MW-14, and MW-18); and source wells (MW-15 and MW-16). These sampling stations shall not be changed and any proposed change of monitoring locations shall be identified and approved by the Regional Board Executive Officer (Executive Officer) prior to their use. The Discharger shall conduct baseline sampling from the above-mentioned wells one or two weeks prior to hydrogen peroxide and Activated persulfate (Klozur) injection and regular sampling with the required frequencies from the up-gradient, down-gradient, and source monitoring wells for the following constituents:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS ¹
Total petroleum hydrocarbons as gasoline (TPHg) and as diesel (TPHd)	µg/L	Grab	• Quarterly
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	Grab	• Quarterly
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	• Quarterly

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS ¹
Ethanol Formaldehyde Acetone	µg/L	Grab	• Quarterly
Total dissolved solids Boron Chloride Bromide Sulfate	mg/L	Grab	• Quarterly
Oxidation-reduction potential	millivolts		• Quarterly
Dissolved Oxygen	mg/L	Grab	• Quarterly
Dissolved ferrous iron Arsenic	µg/L	Grab	• Quarterly
Total Chromium and chromium six ³	µg/L	Grab	• Quarterly
PH	pH units	Grab	• Quarterly
Temperature	⁰ F/ ⁰ C	Grab	• Quarterly
Groundwater Elevation	Feet, mean sea level and below ground surface	In situ	• Quarterly
¹ The first sampling event must be conducted one week following the hydrogen peroxide and Activated persulfate (Klozur) injection. ² The Discharger is required to monitor for these compounds only if they are detected in the first sampling event. ³ The Discharger is required to monitor for total chromium and chromium six only if they are detected in the first sampling event.			

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

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

IV. MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to a less frequent basis or parameters and locations dropped by the Executive Officer if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following completed 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)"

All records and reports submitted in compliance with this Order are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger, will be treated as confidential.

Ordered by:



Tracy J. Egoscue
Executive Officer

Date: December 24, 2007