



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Cal/EPA Secretary

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Arnold Schwarzenegger
Governor

November 24, 2008

Mr. Dean Kubani
Environmental Programs Division
City of Santa Monica
200 Santa Monica Pier, Suite C
Santa Monica, CA 90401

**GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER CLEANUP AT
PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR
HEXAVALENT CHROMIUM IMPACTED SITES
CITY OF SANTA MONICA CORPORATION YARD
2500 MICHIGAN AVENUE, SANTA MONICA (ID NO. 904040434)
(ORDER NO. R4-2007-0019, SERIES NO. 083; CI NO. 9466)**

Dear Mr. Kubani:

We have completed our review of the application for coverage under the General Waste Discharge Requirements to sparge ozone at the site referenced above in Santa Monica, California, for groundwater cleanup and remediation.

The City of Santa Monica (CSM) Corporation Yard is an active facility for vehicle fueling, equipment maintenance and other public work operations in Santa Monica, California (Site). The site currently maintains four 6,500-gallon underground storage tanks (USTs), a dispenser island and associated product lines.

CSM operated a soil vapor extraction (SVE) system from nine SVE wells at the site from February 2004 until October 2006, and removed approximately 8,543 pounds of petroleum hydrocarbons. CSM performed a vapor rebound test and completed two confirmation soil borings to evaluate the effectiveness of vadose zone cleanup at the site. The results of soil sample analyses indicated that the vadose zone contamination has been mitigated by the SVE.

CSM submitted a Remedial Action Plan (RAP) to clean up the groundwater contamination on June 25, 2007. CSM proposes to install an ozone sparging (OS) system to mitigate groundwater contamination and prevent the offsite migration of dissolved plume. Thirty dual-nested injection points will be installed to 130 and 160 feet below ground surface (bgs). The RAP was approved by Board staff on December 7, 2007.

Regional Board staff have determined that the proposed discharge meets the conditions specified in Regional Board Order No. R4-2007-0019, "Revised General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound and/or hexavalent chromium Impacted Sites," adopted by this Regional Board on March 1, 2007.

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Mr. Dean Kubani
City of Santa Monica

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Enclosed are the Waste Discharge Requirements, consisting of Regional Board Order No. R4-2007-0019, Monitoring and Reporting Program No. CI-9466, and Standard Provisions.

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

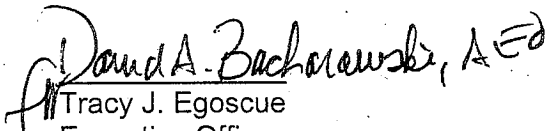
The Monitoring and Reporting Program requires CSM to implement the monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2007-0019. All monitoring reports shall be sent to the Regional Board, ATTN: Information Technology Unit.

When submitting monitoring or technical reports to the Regional Board, please reference Compliance File No. CI-9466 to assure that the reports are directed to the appropriate staff. Do not combine other reports with the monitoring reports complying with Order No. R4-2007-0019. 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 and Standard Provisions can be downloaded from the internet at http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/general_orders/r4-2007-0019/r4-2007-0019.pdf.

If you have any questions, please contact Mr. Jay Huang at (213)576-6711 for technical issues and Dr. Rebecca Chou at (213) 620-6156 for administrative issues.

Sincerely,



Tracy J. Egoscue
Executive Officer

Enclosures

1. Board Order No. R4-2007-0019
2. Monitoring and Reporting Program No. CI-9466

cc: Yvonne Shanks, State Water Resources Control Board, Underground Storage Tank Cleanup Fund(w/o Board Order No. R4-2005-0030)
Scott Broten, ICF Consulting

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STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. CI-9466
for
CITY OF SANTA MONICA CORPORATION YARD
2500 MICHIGAN AVENUE, SANTA MONICA
(OZONE INJECTION FOR GROUNDWATER CLEANUP)
(ORDER NO. R4-2007-0019, SERIES NO. 083)

I. REPORTING REQUIREMENTS

- A. City of Santa Monica (hereinafter Discharger) shall implement this monitoring program on the effective date of Regional Board Order No. R4-2007-0019. The first monitoring report under this program, for January-March 2009, shall be received at the Regional Board by **April 15, 2009**. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

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

Monitoring reports must be addressed to the regional Board, Attention: Information Technology Unit.

- 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, 2010, 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 waste discharge requirements (WDRs).
- D. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services 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.
- E. 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.

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- F. 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.
- G. Each monitoring report must affirm in writing that "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services, 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.
- H. 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.
- I. 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.
- J. If the Discharger performs analyses on any groundwater samples more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the report.
- K. 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.

II. OZONE INJECTION MONITORING REQUIREMENTS

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

1. Location map showing injection points used for the ozone injection.
2. Written and tabular summary defining the quantity of ozone injected per month to the groundwater and a summary describing the days on which the injection system was in operation.

3. Quarterly visual inspection at each injection point shall be conducted to evaluate the well casing integrity for a period of three month after each injection. The quarterly report shall include a summary of the visual inspection.
4. To avoid groundwater monitoring network reduction, data bias, and well screen clogging or alteration, no groundwater monitoring wells shall be used as injection points during the proposed ozone injection. Separate injection points/wells must be installed at the site for the injection.

III. GROUNDWATER MONITORING PROGRAM

The Discharger shall conduct groundwater monitoring at the site. Groundwater samples shall be collected from up-gradient groundwater monitoring wells KMW-5, KMW-6; source wells KMW-10, and KMW-11, and down-gradient wells MW-9, KMW-14, KMW-15 to monitor the effectiveness of the in-situ groundwater remediation (refer to attached Figure 1). Groundwater shall be monitored for the duration of the remediation in accordance with the following discharge monitoring program:

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), ether tertiary butyl ether (ETBE)	µg/L	Grab	• Quarterly
Ethanol Formaldehyde Acetone	µg/L	Grab	• Quarterly ²
Total dissolved solids Boron Chloride Bromide Sulfate	mg/L	Grab	• Quarterly
Oxidation-reduction potential	millivolts		• Quarterly
Dissolved Oxygen	mg/L	Grab	• Quarterly

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS ¹
Dissolved ferrous iron Arsenic	µg/L	Grab	• Quarterly
Total Chromium and chromium six ³	µg/L	Grab	• Quarterly
PH	pH units	Grab	• Quarterly
Temperature	F/ 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 ozone 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 a 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

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)

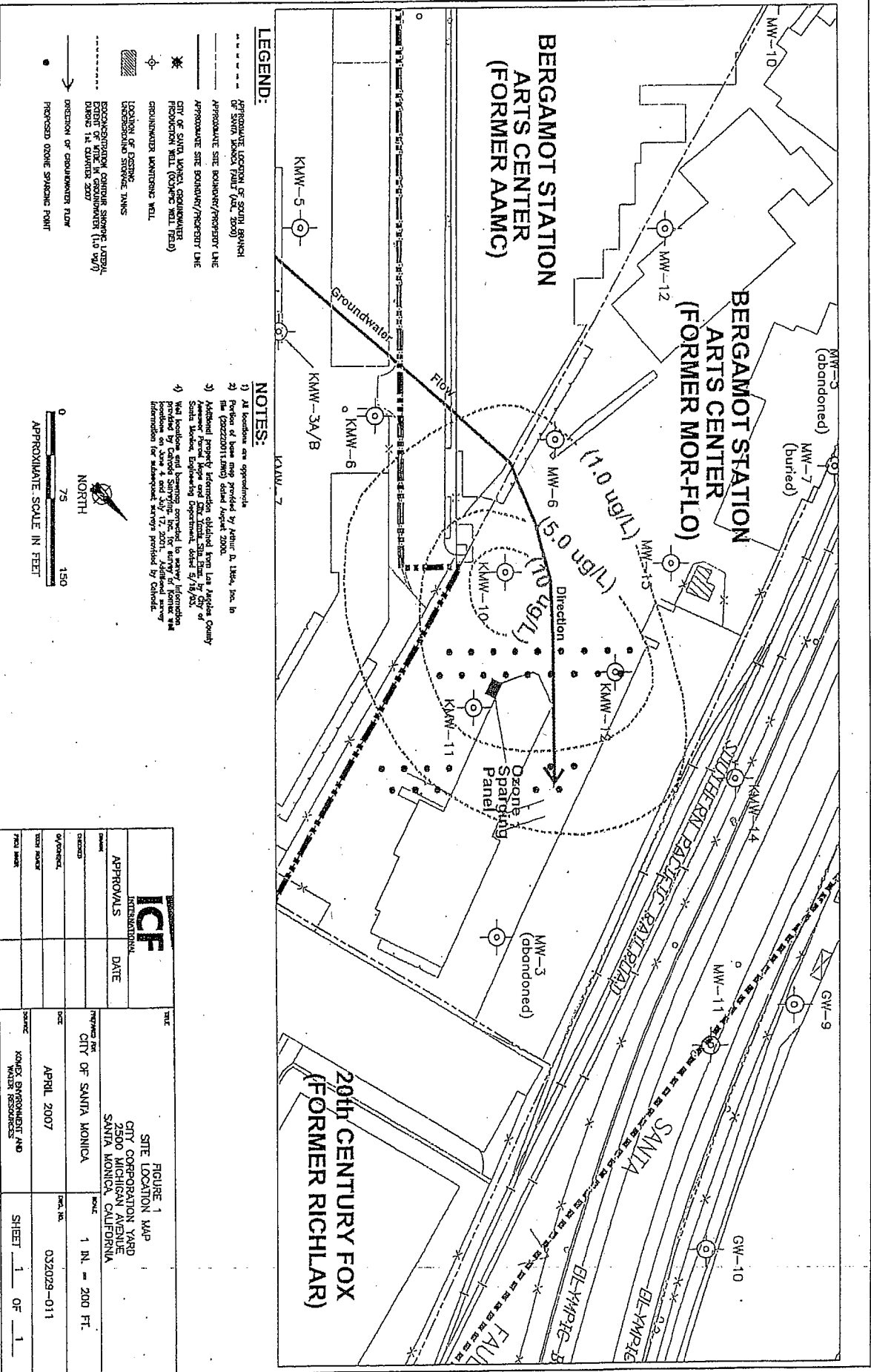
(Title)

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 California Regional Water Quality Control Board, Los Angeles Region.

Ordered by: David A. Bohmanski, AEO
Tracy J. Egoscue
Executive Officer

Date: November 24, 2008



ICF INTERNATIONAL		FIGURE 1 SITE LOCATION MAP	
APPROVALS	DATE	PREPARED FOR	CITY OF SANTA MONICA
DATE		PROJECT NO.	032029-011
DATE		SCALE	1 IN. = 200 FT.
DATE		SHEET	1 OF 1
DATE		PROJECT	KONGA ENVIRONMENT AND WATER RESOURCES