

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

REVISED MONITORING AND REPORTING PROGRAM NO. CI-8909
FOR
LASHKIRI ARCO SERVICE STATION

ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2005-0030 (Series No. 003)
FILE NO. C03035

I. REPORTING REQUIREMENTS

- A. Lashkari ARCO (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment (August 18, 2005) under Regional Board Order No. R4-2005-0030. The first monitoring report under this Program is due by October 15, 2006.

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. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- 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 waste discharge requirements (WDRs).
- 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 WDRs. 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 Order No. R4-2005-0030 "*Monitoring and Reporting Requirements*" in addition to the aforementioned requirements.

II. INJECTION MONITORING REQUIREMENTS

Ferrous Sulfate, Hydrochloric Acid, and Hydrogen Peroxide Solutions Injection

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 for the ferrous sulfate, hydrochloric acid, and hydrogen peroxide solutions.
2. Written summary defining:
 - Depth of injection points and groundwater elevation;
 - Quantity of ferrous sulfate, hydrogen peroxide, and hydrochloric acid (pH buffer) solutions injected per injection point; and
 - Total amount of ferrous sulfate, hydrogen peroxide, and hydrochloric acid solution (pH buffer) injected at site.
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.

III. GROUNDWATER MONITORING PROGRAM

A groundwater-monitoring program shall be designed to detect and evaluate impacts associated with the injection activities [ferrous sulfate, hydrogen peroxide, and hydrochloric acid (pH buffer)]. The following shall constitute the monitoring program for both monitoring wells [source area (MW-8), up- and cross-gradient area (MW-7, MW-12, MW-13, and MW-14), and down- and cross-gradient area (MW-9, MW-17, MW-19, ~~MW-20, and MW-24~~, **MW-24, MW-25, and MW-27**)] and dedicated injection points (MW-10, MW-11, MW-15, **MW-16**, MW-18, **MW-20, MW-21, MW-28, and MW-29**). 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 all monitoring wells identified above including the dedicated injection points, one or two weeks prior to Fentons' Reagent injections for the frequency and constituents contained in the following table (Pages T2-T4):

<u>CONSTITUENT</u>	<u>UNITS</u> ¹	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
pH ⁵	PH units	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Temperature ⁵	⁰ F	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Oxidation-reduction potential ⁵	Milivolts	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Specific conductivity ⁵	µmhos/cm	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Ferrous iron	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴

Dissolved Oxygen ⁵	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Benzene	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Ethylbenzene	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Toluene	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Total xylenes	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Methane	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
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	Weekly ² /Monthly ³ /Quarterly ⁴
Total petroleum hydrocarbons as gasoline (TPHg)	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Ethanol	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Formaldehyde	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Acetone	µg/L	grab	Weekly ² /Monthly ³ /Quarterly ⁴
Total dissolved solids	Mg/L	grab	Quarterly ⁴
Sulfate	mg/l	grab	Quarterly ⁴
Chloride	Mg/L	grab	Quarterly ⁴
Boron	Mg/L	grab	Quarterly ⁴
Total Chromium and chromium VI ⁶	Mg/L	grab	Quarterly ⁴
Sodium	Mg/L	grab	Quarterly ⁴
Carbon dioxide	Mg/L	grab	Quarterly ⁴
Manganese	µg/L	grab	Quarterly ⁴
Total iron	µg/L	grab	Quarterly ⁴
Alkalinity	µg/L	grab	Quarterly ⁴

¹ mg/L: milligrams per liter; µg/L: micrograms per liter; µmhos/cm: micro ohms per centimeter;
°F: degree Fahrenheit.

² Weekly sampling events are required for the first two weeks from the injection date

³ Monthly sampling events are required after the two weekly sampling events for a period of six months from the injection date.

⁴ Quarterly sampling events are required after the first six months sampling events.

⁵ Field instrument will be used to test for this constituent.

⁶ The Discharger is required to monitor for total chromium and chromium six if total chromium is detected in the baseline samples. The monitoring is required only for the well(s) that the total chromium was detected.

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.

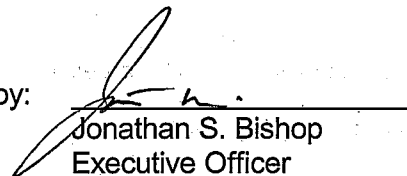
Executed on the _____ day of _____ at _____.

_____ (Signature)

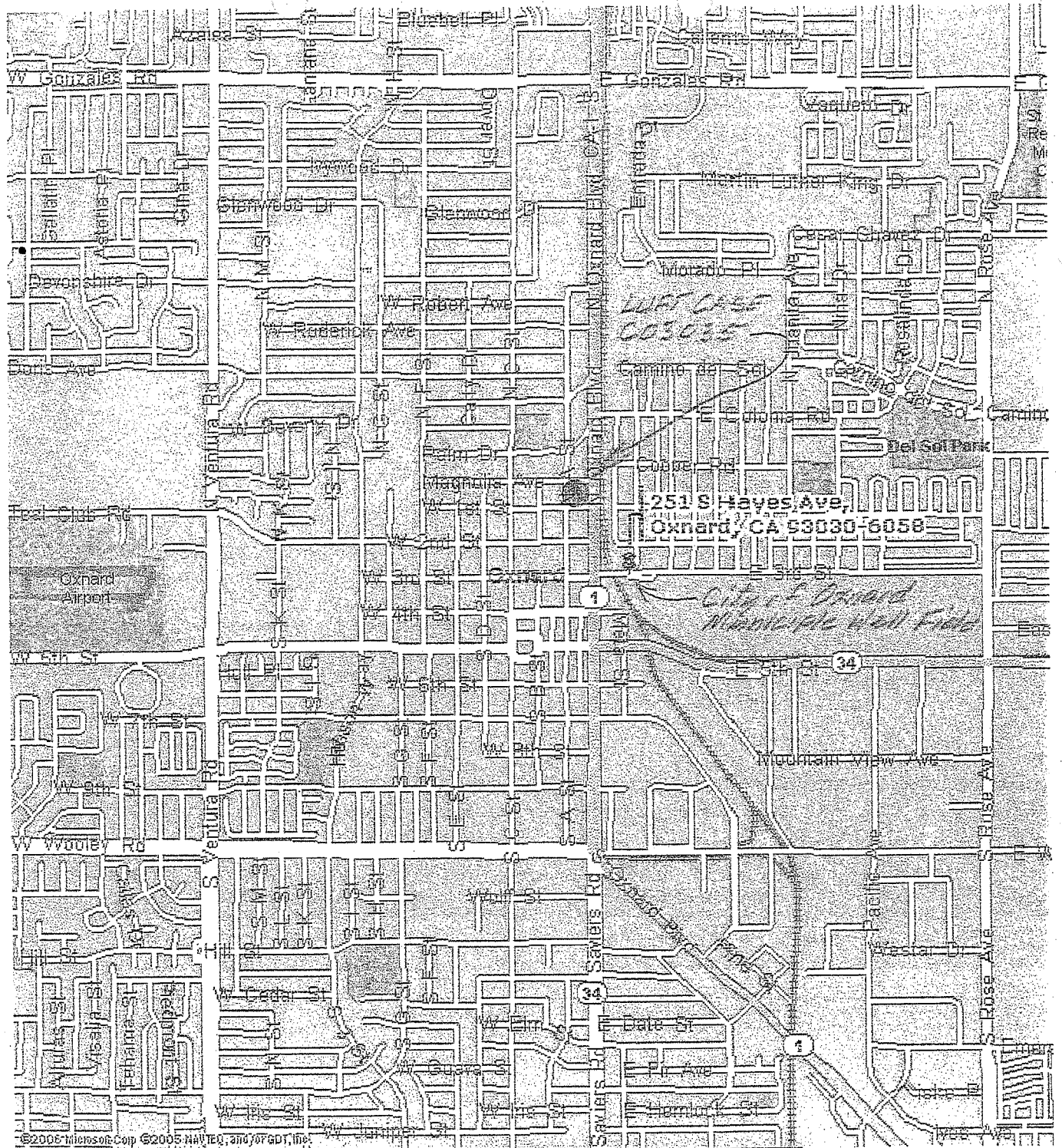
_____ (Title)"

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.

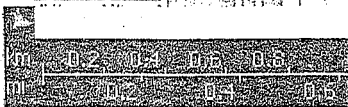
Ordered by:


Jonathan S. Bishop
Executive Officer

Date: August 25, 2006



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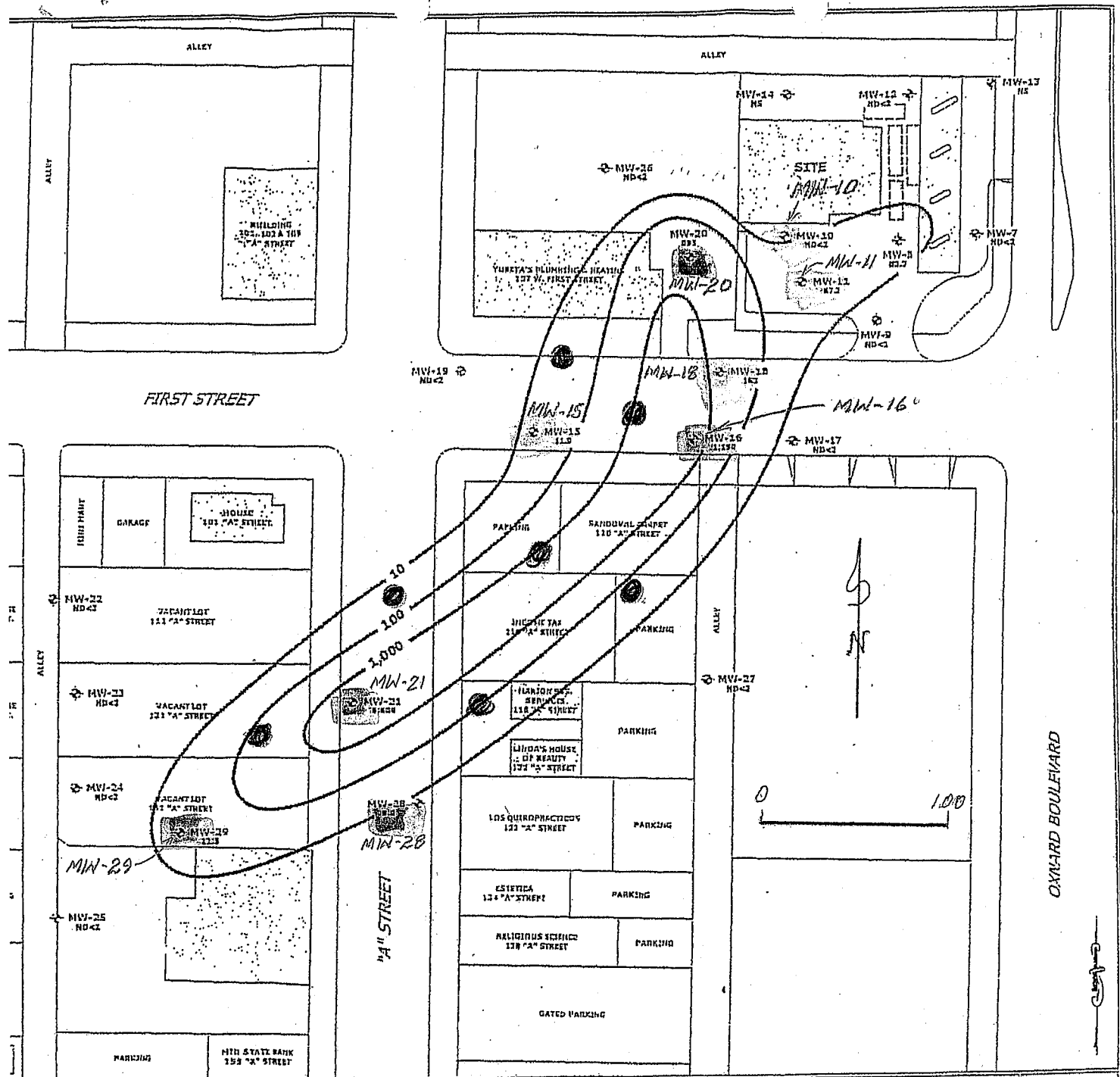
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Enrico 1



D-CONCENTRATION CONTOUR MAP OF MTBE IN GROUNDWATER (IN µg/L) - APRIL, 2006
 105 NORTH OXNARD BOULEVARD
 OXNARD, CALIFORNIA

PLATE
 5

13Q7D MAY 5, 2006 PROJECT NUMBER D068-03




-  Wells authorized for treatment in original WDR (CI #8909)
-  Existing wells to be authorized for treatment by modified WDR
-  Seven provisional treatment points to be authorized for treatment by modified WDR

Figure 2



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

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

August 25, 2006

Mr. Khosrow Lashkari
Lashkari ARCO
105 Oxnard Avenue
Oxnard, CA 93030

Dear Mr. Lashkari:

AMENDMENT TO GENERAL WASTE DISCHARGE REQUIREMENTS FOR FERROUS SULFATE, SODIUM PERSULFATE, AND HYDROGEN PEROXIDE SOLUTION AND HYDROCHLORIC ACID BUFFER SOLUTION INJECTIONS AT PETROLEUM HYDROCARBON FUEL AND/OR VOLATILE ORGANIC COMPOUND IMPACTED SITES – LASHKARI ARCO SERVICE STATION, 105 SOUTH OXNARD BOULEVARD, OXNARD, CALIFORNIA (VCEHD FILE NO. C03035, CI NO. 8909, ORDER NO. R4-2005-0030, SERIES NUMBER NO. 003)

We received a letter dated July 26, 2006 and a technical report from your consultant (Applied Environmental Technologies, Inc.) requesting modifications to the terms of the enrollment under this Regional Board's general Waste Discharge Requirements Order No. R4-2002-0030 (Series No. 003). In the letter your consultant proposed to continue passive infiltration of hydrogen peroxide with Fenton's reagent into the permitted wells (MW-10, MW-11, MW-15, MW-18) and infiltration into five additional wells (MW-16, MW-20, MW-21, MW-28, and MW-29) and seven provisional injection points within the plume area (Figures 1 and 2). This would bring the total number of injection wells to nine as well as up to seven additional proposed treatment points.

The concentration of the hydrogen peroxide with Fenton's Reagent, the quantity, and the application method, for the new injection wells will be the same as previously used. Approximately 40 gallons of Fenton's Reagent at a concentration of ten percent has been added to each well for eight events. The hydrogen peroxide with Fenton's Reagent has been poured slowly into each well through a one-inch diameter tremmie pipe.

After a review of the information in our file and the information provided by your consultant, we approve your request to modify the terms of the enrollment to include additional wells into the injection net work. The monitoring program has been modified to include additional monitoring wells and two monitoring parameters as follows (additions are bolds and deletions are struck out):

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

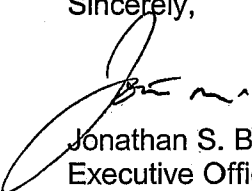
Change No 1: Section III.A, Groundwater Monitoring on page T-2 has been changed to read as follows:

III.A. A groundwater-monitoring program shall be designed to detect and evaluate impacts associated with the injection activities [ferrous sulfate, hydrogen peroxide, and hydrochloric acid (pH buffer)]. The following shall constitute the monitoring program for both monitoring wells [source area (MW-8), up- and cross-gradient area (MW-7, MW-12, MW-13, and MW-14), and down- and cross-gradient area (MW-9, MW-17, MW-19, ~~MW-20, and MW-21~~, **MW-24, MW-25, and MW-27**)] and dedicated injection points (MW-10, MW-11, MW-15, **MW-16, MW-18, MW-20, MW-21, MW-28, and MW-29**). 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 all monitoring wells identified above including the dedicated injection points, one or two weeks prior to Fentons' Reagent injections for the frequency and constituents contained in the following table (Pages T2-T4):

Enclosed is the second amended Monitoring and Reporting Program No. CI-8624. Please note that the amended MRP is effective as of August 25, 2006.

If you have any additional questions, please contact Mr. Orlando H. Gonzalez at (213) 620-2267.

Sincerely,



Jonathan S. Bishop
Executive Officer

Enclosures: 1. Board Order No. R4-2005-0030
2. Amended Monitoring and Reporting Program No. CI-8909

cc: Mr. David Salter, Ventura County Environmental Health Division (VCEHD)
Mr. John Moreno, City of Oxnard, Water Distribution
Ms. Amber Brooker, Komex H₂O Science, Inc.
Ms. Stacie Aichner, Applied Environmental Technologies, Inc. (AET)