



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

February 13, 2007

Mr. Chris Panaitescu
Thrifty Oil Co.
P. O. Box 2128
Santa Fe Springs, CA 90670

GENERAL WASTE DISCHARGE REQUIREMENTS COVERAGE FOR PROPOSED OZONE SPARGING TO GROUNDWATER (ORDER NO. R4-2005-0030) (SERIES NO. 072) FORMER THRIFTY STATION NO. 249, 11304 CULVER BOULEVARD, CULVER CITY, CA (ID# R-25093) (CI NO. 9227)

Dear Mr. Panaitescu:

We have received the document entitled "Application for General Waste Discharge Requirements Permit", dated October 2, 2006, submitted by GeoHydrologic Consultants Inc., on behalf of Thrifty Oil Co. (Thrifty), to obtain a permit to operate an ozone sparging system to clean up the groundwater at the subject site.

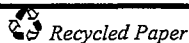
The site is a former Thrifty gasoline service station located at 11304 Culver Boulevard in Culver City, California. In 1998, two 8,000-gallon and one 10,000-gallon gasoline underground storage tanks (USTs) were removed and replaced with new USTs. A total of 529 cubic yards of hydrocarbon-impacted soil were excavated and transported offsite. In August 2000, two 10,000-gallon gasoline USTs were removed and dispenser islands were removed. The site is presently an inactive station. Contamination was detected in soil during the tank removal and petroleum hydrocarbons were detected in groundwater beneath the site. Thrifty installed a total of eleven groundwater monitoring wells. Groundwater has been monitored on a quarterly schedule since 1997. In January 2003, GeoHydrologic Consultants, Inc, on behalf of Thrifty Oil Co., installed two air sparging wells and a vapor extraction well. Vapor extraction and air sparging were performed at the site from March 2004 through October 2004 with limited results. GeoHydrologic submitted a remedial action plan (RAP) on August 18, 2006. The RAP was approved by the Regional Board staff on February 2, 2007.

Regional Board staff have determined that the proposed discharge meets the conditions specified in Regional Board Order No. R4-2005-0030, "General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound Impacted Sites," adopted by this Regional Board on May 5, 2005.

Enclosed are Waste Discharge Requirements, Order No. R4-2005-0030, and Monitoring and Reporting Program No. CI-9227.

The "Monitoring and Reporting Program" requires Thrifty to implement the monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2005-0030. Thrifty's first

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.

Mr. Chris Panaitescu
Thrifty Oil Co.

-2-

February 13, 2007

monitoring report is due to this Board two months after the injection. All monitoring reports should 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-9227," which will assure that the reports are directed to the appropriate file and staff. Also, please 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. R4-2005-0030 only to the applicant. A copy of the Order will be furnished to anyone who requests it.

If you have any questions, please contact Mr. Rodney Nelson at (213) 620-6119.

Sincerely,

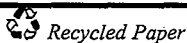
David A. Bachmauski, AEC
Jonathan A. Bishop
Executive Officer

Enclosures

Board Order No. R4-2005-0030
Monitoring and Reporting Program No. CI-9227

cc: Yvonne Shanks, State Water Resources Control Board, Underground
Storage Tank Cleanup Fund(w/o Board Order No. R4-2005-0030)
Tim Smith, Los Angeles County Department of Public Works, Environmental Program
Division
Richard Vogel, GeoHydrologic Consultants, Inc.

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.

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

MONITORING AND REPORTING PROGRAM NO. CI-9227
FOR
FORMER THRIFTY STATION NO. 249
11304 CULVER BOULEVARD, CULVER CITY
(OZONE INJECTION FOR GROUNDWATER CLEANUP)
(ORDER NO. R4-2005-0030) (SERIES NO. 072)
(ID NO. R-25093)

I. REPORTING REQUIREMENTS

- A. Thrifty Oil Co. (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment (February 13, 2007) under Regional Board Order No. R4-2005-0030.

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

The first monitoring report under this Program is due by July 15, 2007.

- 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, 2008, 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

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 and depth to groundwater;
 - Quantity of ozone solutions injected per injection point; and
 - Total amount of ozone 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. The Discharger shall sample up-gradient well MW-7, cross-gradient wells MW-3 and TDD-1R and downgradient well MW-6 (see enclosed Figure 1) to provide groundwater quality information prior to and after the ozone injection. 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. Groundwater from the wells noted above shall be monitored for the duration of the remediation in accordance with the following discharge monitoring program:

<u>CONSTITUENT</u>	<u>UNITS</u> ¹	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
pH ⁵	pH units	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Temperature ⁵	°F	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Oxidation-reduction potential ⁵	millivolts	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Specific conductivity ⁵	µmhos/cm	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Ferrous iron	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Dissolved Oxygen ⁵	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Total petroleum hydrocarbons (as gasoline and as diesel)	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Benzene	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Ethylbenzene	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Toluene	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴

Total xylenes	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
MTBE	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
TBA	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
TAME	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
DIPE	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
ETBE	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Ethanol	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Methane	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Formaldehyde	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Acetone	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Total organic carbon	µg/L	grab	Bi-weekly ² /Monthly ³ /Quarterly ⁴
Total dissolved solids	mg/L	grab	Quarterly
Sulfate	mg/l	grab	Quarterly
Chloride	mg/L	grab	Quarterly
Boron	mg/L	grab	Quarterly
Sodium	mg/L	grab	Quarterly
Carbon dioxide	mg/L	grab	Quarterly
Manganese	µg/L	grab	Quarterly
Total iron	µg/L	grab	Quarterly
Alkalinity	µg/L	grab	Quarterly
Total chromium	µg/L	grab	Quarterly ⁶
Chromium six	µg/L	grab	Quarterly ⁶

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

² Bi-weekly sampling for the first month of injection.

³ Monthly sampling is required for the next two months of injection.

⁴ Quarterly sampling thereafter.

⁵ Field instrument may be used to measure this parameter.

⁶ Monitoring is required only for the well(s) that this constituent is detected in the baseline samples(s).

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)

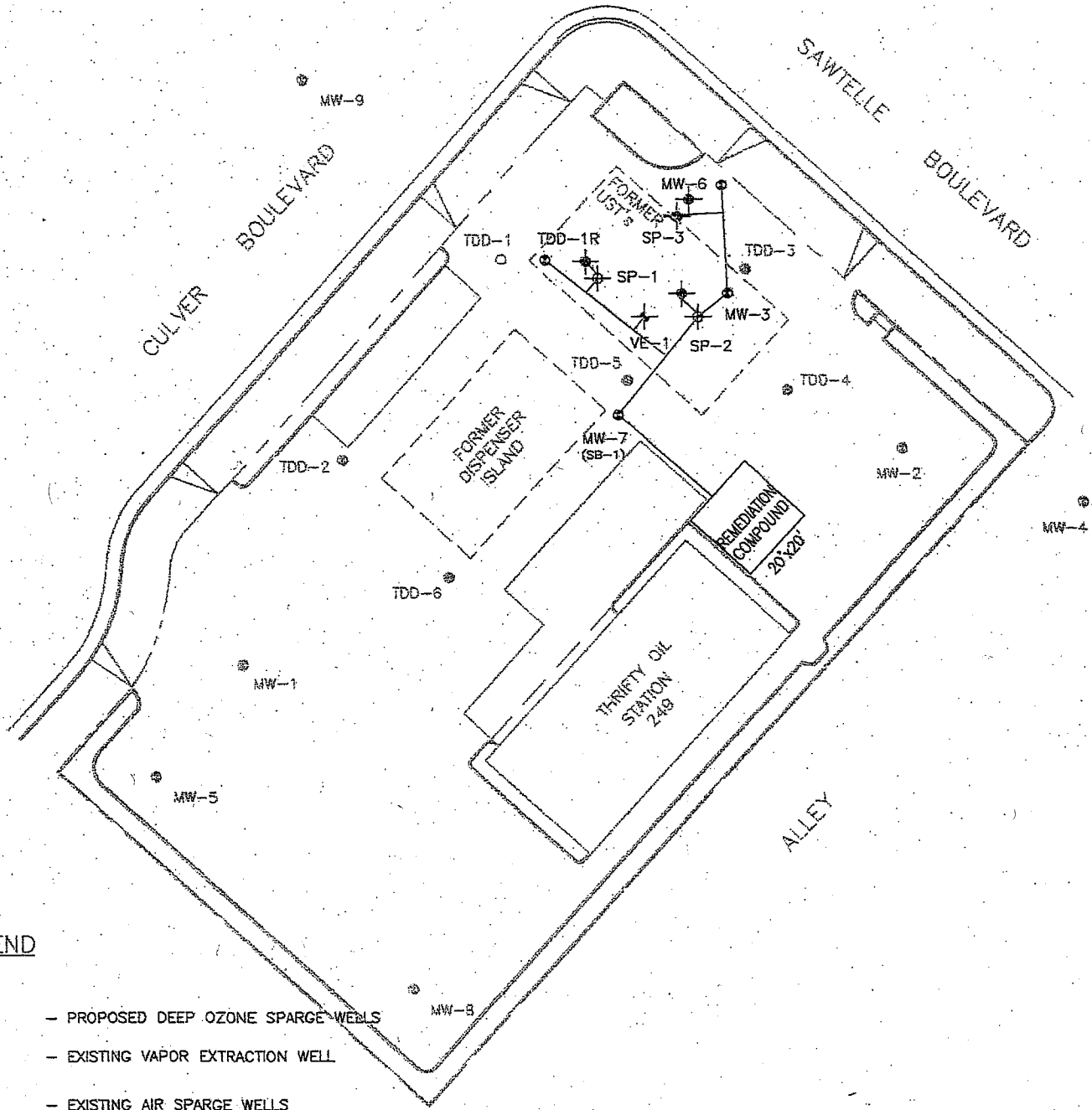
(Title)"

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:

for David A. Bachowski, AEO
Jonathan S. Bishop
Executive Officer

Date: February 13, 2007



LEGEND

- PROPOSED DEEP OZONE SPARGE WELLS
- EXISTING VAPOR EXTRACTION WELL
- EXISTING AIR SPARGE WELLS
- GROUNDWATER MONITORING WELLS
- VAPOR EXTRACTION/SPARGE PIPING
- SOIL BORINGS
- ABANDONED WELL
- PROPERTY LINE



SCALE: 1"=40'-0"

GEOHYDROLOGIC CONSULTANTS, INC.
 5912 Bolsa Avenue, Suite 200
 Huntington Beach, CA 92649
 www.geohydrologic.com

NORTH

GHC: 1281
 DATE: 09/09/05

FIGURE 1
PROPOSED REMEDIATION SYSTEM LAYOUT
 Thrifty Station #249
 11304 Culver Boulevard
 Culver City, CA