



California Regional Water Quality Control Board Los Angeles Region



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Secretary for
Environmental
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Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.swrcb.ca.gov/rwqcb4>

October 6, 2003

Mr. Larry Yates
Terminal Manager
Equilon Enterprises, LLC
2457 Redondo Avenue
Long Beach, CA 90806

Certified Mail
Return Receipt Requested
Claim No. 7003 0500 0000 5777 1411

Dear Mr. Yates:

4B196600025

CONTINUATION OF COVERAGE UNDER GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND WASTE DISCHARGE REQUIREMENTS - EQUILON ENTERPRISES LLC, SIGNAL HILL FUEL DISTRIBUTION TERMINAL, 2457 REDONDO AVENUE, LONG BEACH, CALIFORNIA (NPDES NO. CAG994004, CI-7338)

We have completed our review of your Notice of Intent (NOI) and analytical results of representative groundwater samples in order to continue enrollment under the General NPDES Permit. Discharge of treated groundwater generated from the cleanup of contaminated groundwater beneath the above-referenced facility is currently regulated under NPDES General Permit No. CAG834001 (Order No. 97-046) adopted by this Board on May 12, 1997.

Based on the information and water quality data you have provided, the groundwater at the project site is contaminated with petroleum-fuel compounds and heavy metals. Therefore, we have determined that your discharge is more appropriately regulated under Order No. R4-2003-0111, *General National Pollutant Discharge Elimination System and Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties*, adopted by this Board on August 7, 2003.

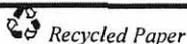
The existing enrollment under NPDES Permit No. CAG834001, Order No. 97-046, which was issued to you on February 1, 1999, is superseded by this new permit and your coverage under Order No. 97-046 will be terminated in a separate letter.

Enclosed are your Waste Discharge Requirements, which also serve as your NPDES permit, consisting of Order No. R4-2003-0111 and Monitoring and Reporting Program No. CI-7338. The discharge limitations in Part E.1.a. and b of Order No. R4-2003-0111 for the specific constituents listed on the table with the enclosed Fact Sheet are applicable to your discharge. The treated groundwater discharge flows into Los Cerritos Channel, a Miscellaneous Los Angeles County Coastal Stream. Therefore, the discharge limits in Attachment B of Order No. R4-2003-0111 are not applicable to your discharge.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of coverage under this permit. All monitoring reports should be sent to the Regional

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption
For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>



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

Mr. Larry Yates
Equilon Enterprises, LLC

October 6, 2003

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-7338 and NPDES No. CAG994004", 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.

In order to avoid future annual fees, please submit written notification when the project has been completed and the permit is no longer needed.

We are sending a copy of Order No. R4-2003-0111 only to the applicant. For those on the mailing list, please refer to the Board Order sent to you previously or download a copy of the Order from our website at http://www.swrcb.ca.gov/rwqcb4/html/permits/general_permits.html.

If you have any questions, please contact Raul Medina at (213) 620-2160.

Sincerely,



Dennis A. Dickerson
Executive Officer

Enclosures:

General NPDES No. CAG994004, Order No. R4-2003-0111
Fact Sheet
Monitoring and Reporting Program No. CI-7338

cc: Environmental Protection Agency, Region 9, Permit Section (WTR-5)
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Services, Division of Ecological Services
NOAA, National Marine Fisheries Service
Michael Lauffer, Office of Chief Counsel, State Water Resources Control Board
James Maughan, Division of Water Quality, State Water Resources Control Board
California Department of Fish and Game, Marine Resources, Region 5
California Department of Health Services, Environmental Branch
Los Angeles County, Department of Public Works, Waste Management Division
Los Angeles County, Department of Health Services
City of Long Beach
Karl Bewley, Miller Brooks Environmental, Inc.

California Environmental Protection Agency

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STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles, California 90013

**FACT SHEET
WASTE DISCHARGE REQUIREMENTS
FOR
EQUILON ENTERPRISES, LLC
(SIGNAL HILL FUEL DISTRIBUTION TERMINAL)**

**NPDES NO. CAG994004
CI-7338**

FACILITY ADDRESS

2457 Redondo Avenue
Long Beach, California

FACILITY MAILING ADDRESS

P. O. Box 7869
Burbank, CA 91510-7869

PROJECT DESCRIPTION:

Equilon Enterprises, LLC discharges wastewater from their groundwater cleanup project located at 2457 Redondo Avenue, Long Beach, California. The groundwater beneath the site is impacted with petroleum-fuel compounds and heavy metals. Remediation of the impacted groundwater is ongoing at the facility. Prior to discharge, the groundwater is first treated through an aboveground bioreactor system to remove dissolved-phase petroleum hydrocarbons and heavy metals, and a carbon adsorption unit to remove the petroleum-fuel compounds.

VOLUME AND DESCRIPTION OF DISCHARGE:

Up to 58,000 gallons per day of treated groundwater is discharged into the storm water catch basin located along Redondo Avenue (Latitude: 33° 49' 30", Longitude: 118° 07' 00"). The discharge flows to Los Cerritos Channel, a Miscellaneous Los Angeles County Coastal Stream, a water of the United States. The site location map and process flow diagram are shown in Figures 1 and 2, respectively.

APPLICABLE EFFLUENT LIMITATIONS

Based on the information provided in the NPDES Application Supplemental Requirements, the following constituents listed in the table below have been determined to show reasonable potential to exist in the discharge. The discharge of treated groundwater flows into Los Cerritos Channel that is designated as MUN (Potential) beneficial use. Therefore, the discharge limitations under the "Other Waters" column apply to the discharge. Attachment B is not applicable to the discharge. Based on the effluent hardness value of 430 mg/L, an appropriate discharge limitation for hardness-dependent metals has been selected according to Section E.1.b. of the Order.

This table lists the specific constituents and effluent limitations applicable to the discharge.

Constituents	Units	Discharge Limitations	
		Daily Maximum	Monthly Average
Total Suspended Solids	mg/L	150	50
Turbidity	NTU	150	50
BOD ₅ 20°C	mg/L	30	20
Oil and Grease	mg/L	15	10
Settleable Solids	ml/L	0.3	0.1
Sulfides	mg/L	1.0	
Phenols	mg/L	1.0	
Residual Chlorine	mg/L	0.1	
Methylene Blue Active Substances (MBAS)	mg/L	0.5	
Volatile Organic Compounds			
Benzene	µg/L	1.0	
Toluene	µg/L	150	
Ethylbenzene	µg/L	700	
Xylenes	µg/L	1750	
Ethylene Dibromide	µg/L	0.05	
Methyl tertiary butyl ether (MTBE)	µg/L	5	
Miscellaneous			
Tertiary butyl alcohol (TBA)	µg/L	12	
Total Petroleum Hydrocarbons	µg/L	100	
Metals			
Lead	µg/L	25.6	12.8
Zinc	µg/L	350	170

FREQUENCY OF DISCHARGE:

The discharge of treated groundwater will be continuous. System operation is expected through year 2004.

REUSE OF WATER:

Offsite disposal of treated waste is not feasible due to high cost of disposal. Discharge to the sewer is not feasible because of inaccessibility and the high cost of sewer connection. The property and the immediate vicinity have no landscaped areas that require irrigation. Since there are no feasible reuse options, the groundwater will be discharged to the storm drain.

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

**MONITORING AND REPORTING PROGRAM NO. CI-7338
FOR
EQUILON ENTERPRISES, LLC
(SIGNAL HILL FUEL DISTRIBUTION TERMINAL)
(NPDES NO. CAG994004)**

I. REPORTING REQUIREMENTS

- A. The discharger shall implement this monitoring program on the effective date of this permit. The discharger shall submit monitoring reports to the Regional Board by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January - March	May 15
April - June	August 15
July - September	November 15
October - December	February 15
Annual Summary Report	March 15

- B. The first monitoring report under this Program is due by February 15, 2004. The annual summary report, shall contain a discussion of the previous year's effluent monitoring data, as well as graphical and tabular summaries of the data. If there is no discharge during any reporting period, the report shall so state.
- C. All monitoring reports shall include the discharge limitations in the Order, tabulated analytical data, the chain of custody form, and the laboratory report (including but not limited to date and time of sampling, date of analyses, method of analysis and detection limits).
- D. Each monitoring report shall contain a separate section titled "Summary of Non-compliance" which discusses the compliance record and corrective action taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.
- E. Before commencing a new discharge, a representative sample of the effluent shall be collected and analyzed for toxicity and for all the constituents listed in the Fact Sheet and the test results must meet all applicable limitations of Order No. R4-2003-0111. (Note: This requirement does not apply to existing discharges.)

II. SAMPLE COLLECTION REQUIREMENTS (AS APPROPRIATE)

- A. Daily samples shall be collected each day.
- B. Weekly samples shall be collected on a representative day of each week.
- C. Monthly samples shall be collected on a representative day of each month.
- D. Quarterly samples shall be collected in February, May, August, and November.
- E. Semi-annual samples shall be collected in May and November.
- F. Annual samples shall be collected in November.

III. EFFLUENT MONITORING REQUIREMENTS

- A. Sampling station(s) shall be established at the discharge point and shall be located where representative samples of the effluent can be obtained. Provisions shall be made to enable visual inspections before discharge. In the event of presence of oil sheen, debris, and/or other objectionable materials or odors, discharge shall not commence until compliance with the requirements is demonstrated. All visual observations shall be included in the monitoring report.
- B. If monitoring result indicate an exceedance of a limit contained in Order R4-2003-0111, the discharge shall be terminated and shall only be resumed after remedial measures have been implemented and full compliance with the requirements has been ascertained.
- C. In addition, as applicable, following an effluent limit exceedance, the discharger shall implement the following accelerated monitoring program:
 - 1. Monthly monitoring shall be increased to weekly monitoring,
 - 2. Quarterly monitoring shall be increased to monthly monitoring,
 - 3. Semi-annually monitoring shall be increased to quarterly, and
 - 4. Annual monitoring shall be increased to semi-annually.

If three consecutive accelerated monitoring events demonstrate full compliance with effluent limits, the discharger may return to the regular monitoring frequency, with the approval of the Executive Officer of the Regional Board.

- D. The following shall constitute the discharge monitoring program:

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
Flow	gal/day	totalizer	continuously
pH	pH units	grab	quarterly
Temperature	°F	grab	quarterly
Total Suspended Solids	mg/L	grab	quarterly
Turbidity	NTU	grab	quarterly

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
BOD ₅ 20°C	mg/L	grab	quarterly
Oil and Grease	mg/L	grab	quarterly
Settleable Solids	ml/L	grab	quarterly
Sulfides	mg/L	grab	quarterly
Phenols	mg/L	grab	quarterly
Residual Chlorine	mg/L	grab	quarterly
Methylene Blue Active Substances (MBAS)	µg/L	grab	quarterly
Benzene	µg/L	grab	monthly
Toluene	µg/L	grab	monthly
Ethylbenzene	µg/L	grab	monthly
Xylenes	µg/L	grab	monthly
Ethylene Dibromide	µg/L	grab	monthly
Methyl tertiary butyl ether (MTBE)	µg/L	grab	monthly
Tertiary butyl alcohol (TBA)	µg/L	grab	monthly
Total Petroleum Hydrocarbons	µg/L	grab	monthly
Lead	µg/L	grab	monthly
Zinc	µg/L	grab	monthly
Acute Toxicity	% survival	grab	annually

IV. EFFLUENT TOXICITY TESTING

- A. The discharger shall conduct acute toxicity testing tests on 100% effluent grab samples by methods specified in 40 CFR Part 136 which cites USEPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, October 2002, (EPA/821-R-02-012) or a more recent edition. Submission of bioassay results should include the information noted on pages 109-113 of the EPA/821-R-02-012 document.
- B. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish discharges. The method for topsmelt is found in USEPA's Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition, October 2002, (EPA/821-R-02-014).
- C. If the results of the toxicity test yields a survival of less than 90%, then the frequency of analyses shall increase to monthly until at least three test results have been obtained and full compliance with effluent limitations has been demonstrated, after which the frequency of analyses

shall revert to annually. Results of toxicity tests shall be included in the first monitoring report following sampling.

V. GENERAL PROVISIONS FOR REPORTING

- A. The discharger shall inform this Regional Board 24 hours before the start of the discharge.
- B. 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) or approved by the Executive Officer. A copy of the laboratory certification shall be provided with the first monitoring report and each time a new and/or renewal is obtained from ELAP.
- C. Samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. Proper chain of custody procedures must be followed and a copy shall be submitted with the report.
- D. As required in part H.5. of Order No. R4-2003-0111, the monitoring report shall specify the USEPA analytical method used, the Method Detection Limit and the Minimum Level for each pollutant.

VI. COMPLIANCE DETERMINATION (AS APPLICABLE)

- A. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Monitoring and Reporting Requirements Section H.5. of Order R4-2003-0111), then the Discharger is out of compliance.
- B. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:
 - a. If the analytical result of a single sample, monitored monthly, quarterly, semi-annually, or annually, does not exceed the monthly average limit for that constituent, the Discharger has demonstrated compliance with the monthly average limit for that month.
 - b. If the analytical result of a single sample, monitored monthly, quarterly, semi-annually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Monitoring and Reporting Requirements Section H.5. of Order R4-2003-0111), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Monitoring and Reporting Requirements Section H.5. of Order R4-2003-0111), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

- c. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.
 - d. If only one sample was obtained for the month or more than a monthly period and the result exceeded the monthly average, then the Discharger is in violation of the monthly average limit.
- C. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.
- D. Compliance with effluent limitations expressed as a median – in determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and
- a. If the number of measurements (n) is odd, then the median will be calculated as $X_{(n+1)/2}$, or
 - b. If the number of measurements (n) is even, then the median will be calculated as $[X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the n/2 and n/2+1 data points.
- E. In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for "Not Detected" (ND) and the estimated concentration for "Detected, but Not Quantified" (DNQ) for the calculation of the monthly average concentration. To be consistent with section VI.C., if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant

concentrations should be considered as zero for the calculation of the monthly average concentration.

VII. NOTIFICATION

A. The discharger shall notify the Executive Officer in writing prior to discharge of any chemical which may be toxic to aquatic life. Such notification shall include:

1. Name and general composition of the chemical,
2. Frequency of use,
3. Quantities to be used,
4. Proposed discharge concentrations and,
5. EPA registration number, if applicable.

No discharge of such chemical shall be made prior to obtaining the Executive Officer's approval.

B. The discharger shall notify the Regional Board via telephone and/or fax within 24 hours of noticing an exceedance above the effluent limits in Order No. R4-2003-0111. The discharger shall provide to the Regional Board within 14 days of observing the exceedance a detailed statement of the actions undertaken or proposed that will bring the discharge into full compliance with the requirements and submit a timetable for correction.

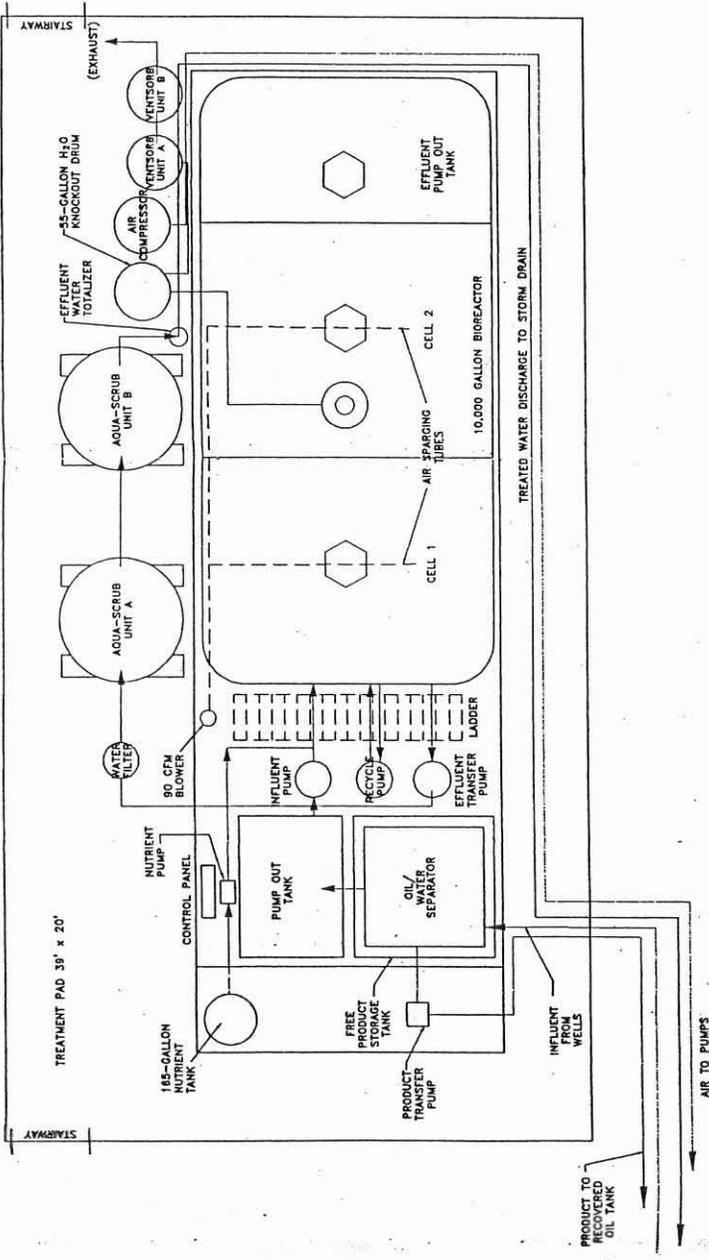
VIII. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted by the Executive Officer to a less frequent basis if the discharger makes a request and the request is justified by statistical trends of monitoring data submitted. However, monitoring frequency may also increase based on site-specific conditions.

Ordered by: 
Dennis A. Dickerson
Executive Officer

Date: October 6, 2003

/RM





SHELL OIL COMPANY
2457 REDONDO AVE.
SIGNAL HILL, CA

GROUNDWATER TREATMENT SYSTEM LAYOUT

DATE	PROJECT NUMBER	FIGURE	REV
04/95	6-94-4911	2	
DRAWING NUMBER	DRAWN BY		SIZE
CS-DWG(S)SHELL-SH-ORD-0380023	J. ADAMS		17 x 11
DRAWN BY		APPROVED BY	