

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. CI-9226
FOR
E&F ARCO
ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2007-0019
SERIES NO. 003

I. REPORTING REQUIREMENTS

- A. E&F Arco (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment (March 27, 2009) under Regional Board Order No. R4-2007-0019. The first monitoring report under this Program is due by April 15, 2009.

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, 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. 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. In addition to the aforementioned requirements, the Discharger shall comply with requirements contained in Section G of Order No. R4-2007-0019 "*Monitoring and Reporting Requirements*".

II. INJECTION MONITORING REQUIREMENTS

Injection of ozone:

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 ozone injected at each 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.
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 for ozone during the pilot or full scale 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 for up-gradient wells MW-1 and MW-2; down-gradient wells MW-4, MW-8, MW-9 and MW-10; and source wells IW-4 and IW-5 (see figure 3). A baseline monitoring and sampling will be conducted prior to the proposed ozone injections from the existing monitoring wells. Baseline monitoring will establish the initial conditions with respect to the contaminant levels. 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 existing wells one or two weeks prior to ozone injection and regular sampling with the required frequencies from the up-gradient, down-gradient, and source monitoring wells for the following constituents:

<u>CONSTITUENT</u>	<u>UNITS</u> ¹	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
pH ²	PH units	Grab	Quarterly
Temperature ²	°F	grab	Quarterly
Oxidation-reduction potential ²	Milivolts	grab	Quarterly
Specific conductivity ²	µmhos/cm	grab	Quarterly
Ferrous iron	µg/L	grab	Quarterly
Dissolved Oxygen ²	µg/L	grab	Quarterly
MTBE	µg/L	grab	Quarterly
Tert-Butyl Alcohol (TBA)	µg/L	grab	Quarterly
Di-isopropyl Ether (DIPE)	µg/L	grab	Quarterly
Ethyl-t-Butyl Ether (ETBE)	µg/L	grab	Quarterly
Tert-Amyl-Methyl Ether (TAME)	µg/L	grab	Quarterly
Acetone	µg/L	grab	Quarterly
Formaldehyde	µg/L	grab	Quarterly
Total Petroleum Hydrocarbons as gasoline (TPHg)	µg/L	grab	Quarterly
Carbon tetrachloride	µg/L	grab	Quarterly
Benzene	µg/L	grab	Quarterly
Ethylbenzene	µg/L	grab	Quarterly
Toluene	µg/L	grab	Quarterly
Total xylenes	µg/L	grab	Quarterly
Methane	µg/L	grab	Quarterly
Total organic carbon	µg/L	grab	Quarterly
Total dissolved solids	mg/L	grab	Quarterly
Sulfate	mg/l	grab	Quarterly
Chloride	mg/L	grab	Quarterly
Boron	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
Chromium (VI)	mg/L	grab	Quarterly ³
Total Chromium	mg/L	grab	Quarterly ³

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

² Field instrument will be used to test for this constituent.

³ The Discharger is required to monitor for total chromium and chromium six in the baseline, second and fourth quarterly sampling. If detected at any of these sampling events, the total chromium and chromium six must be monitored quarterly thereafter.

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)"

VI. PUBLIC DOCUMENTS

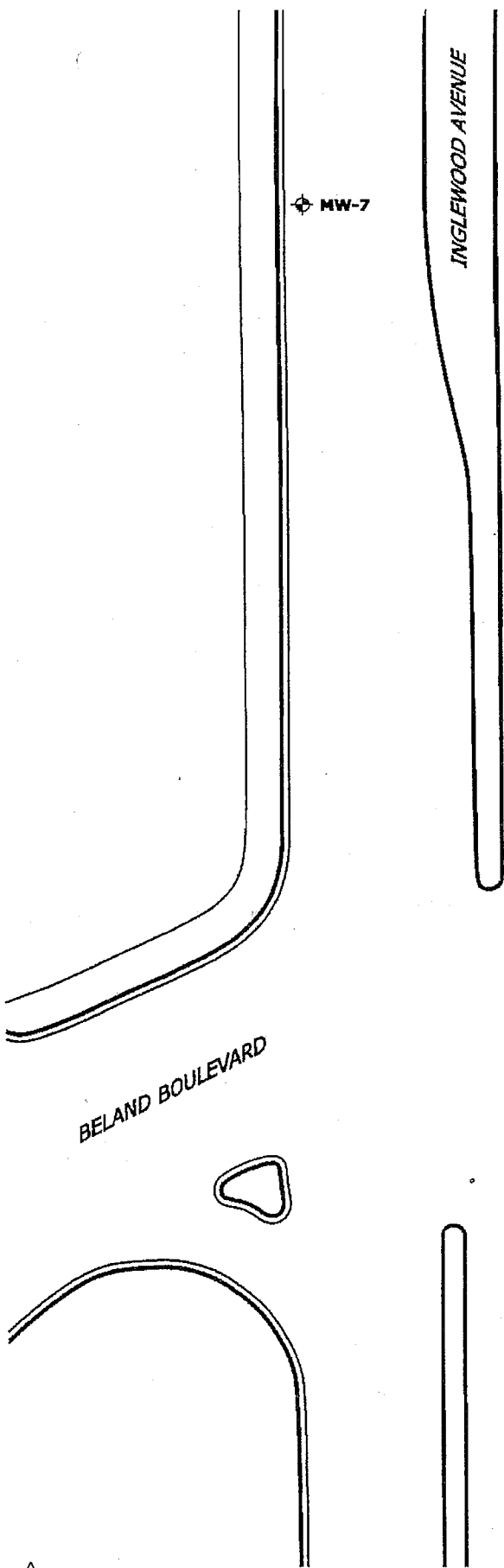
These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:

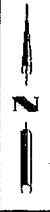
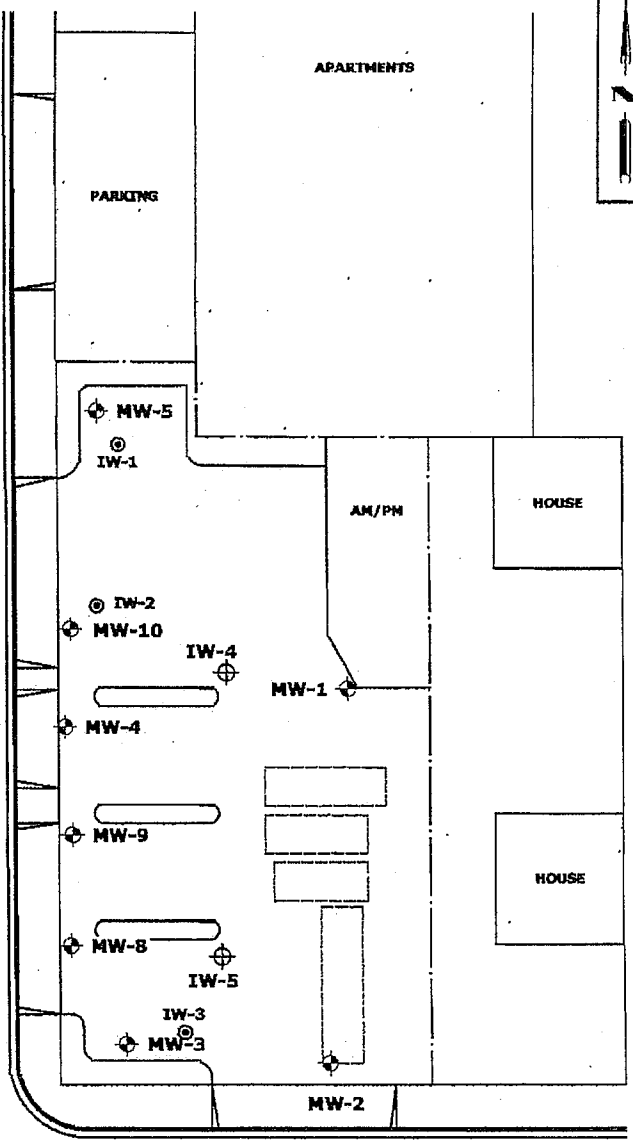


Tracy J. Egoscue
Executive Officer

Date: March 27, 2009



MW-6



BELAND BOULEVARD

INGLEWOOD AVENUE

160TH STREET

LEGEND:

- MW-2 ⊕ GROUNDWATER MONITORING WELL
- ⊙ FENTON'S REAGENT INJECTION WELL
- IW-4 ⊕ PROPOSED OZONE INJECTION WELL

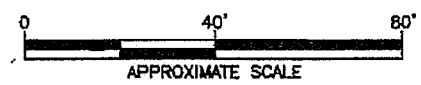
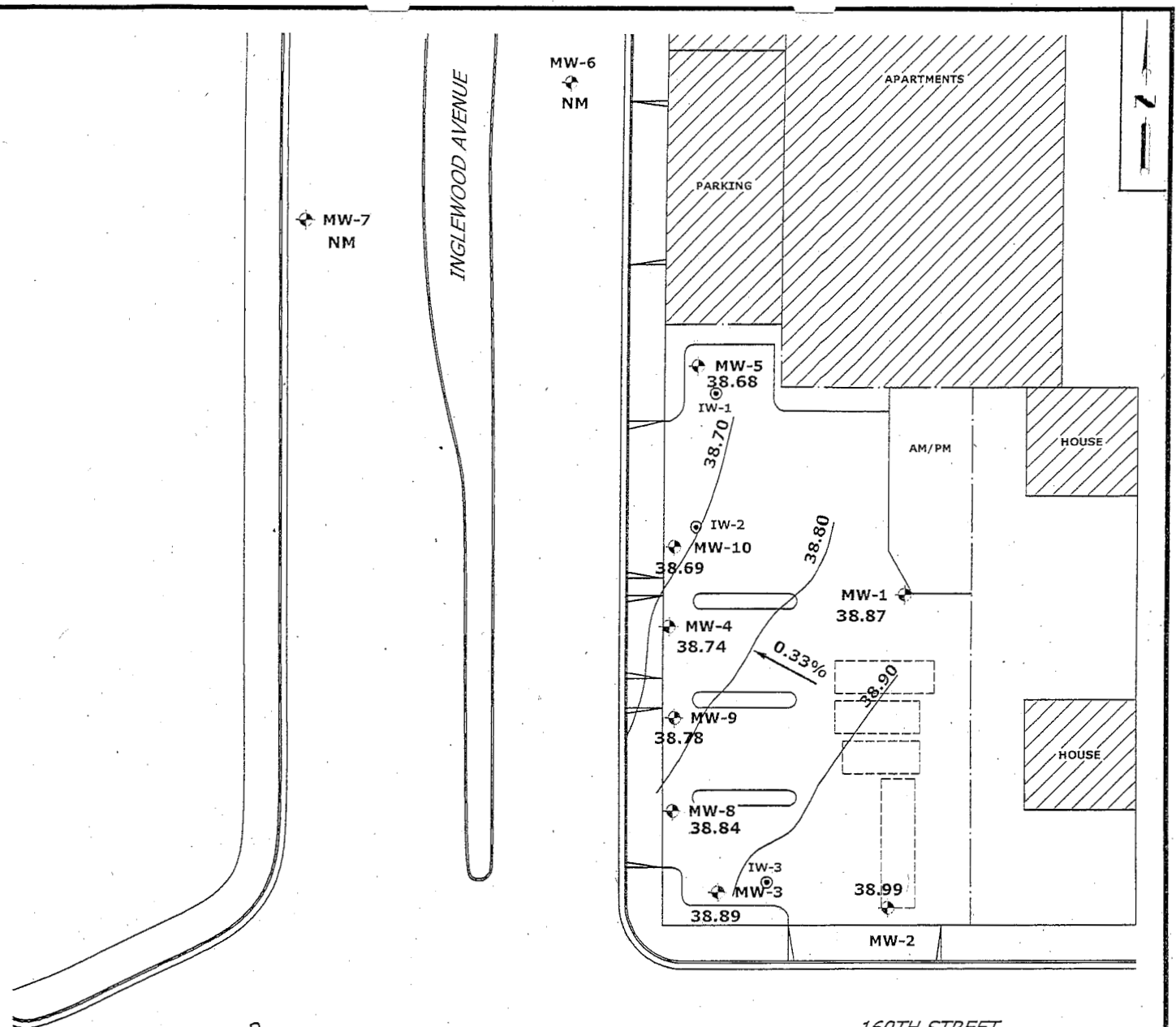


FIGURE 3

LOCATIONS OF INJECTION WELLS
 E&F ARCO Facility
 15922 Inglewood Avenue
 Lawndale, California





160TH STREET

BELAND BOULEVARD

INGLEWOOD AVENUE

LEGEND:

- MW-2 38.99 GROUNDWATER MONITORING WELL and WATER LEVEL (FEET ABOVE MEAN SEA LEVEL)
- FENTON'S REAGENT INJECTION WELL

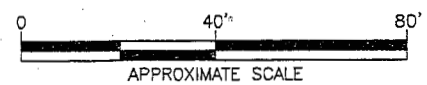


FIGURE 3
 Groundwater Contour Map
 (September 30, 2008)
 E&F ARCO Facility
 15922 Inglewood Avenue
 Lawndale, California



