CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

August 30, 2013

Mr. De Holbrook
Cardlock Fuels System, Inc.
1800 W. Katella Ave.
Orange, CA 92683-4159

Certified Mail
Return Receipt Requested
Claim No. 7011 2970 0000 0645 1805

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER CLEANUP AT PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR HEXAVALENT CHROMIUM IMPACTED SITES
CARDLOCK FUELS SYSTEM, INC. (A-1 SITE)
2720 EAST CARSON STREET, CARSON, CA (CASE NO. I-03699)
(ORDER NO. R4-2007-0019, SERIES NO. 229; CI NO. 9965)

Dear Mr. Holbrook:

We have completed our review of your application for coverage under the General Waste Discharge Requirements for oxygen release compound (ORC®) and RegenOx® application at the site referenced above in Carson, California, for groundwater cleanup.

The site is a gasoline service station located at the southwest corner of the East Carson Street and Santa Fe Avenue in Carson, California (Site) (See Figure 1) (Latitude: N330 49' 53.318" Longitude: W110 12' 58.55").

Between December 1998 and January 1999, six underground storage tanks were removed from the site. Several site assessments were conducted between 1999 and 2001. Site investigations found soil and groundwater contamination beneath the site. A periodic groundwater monitoring program was initiated in November 1999. The most recent monitoring data in November 2012 showed the maximum concentrations of total petroleum hydrocarbon as gasoline (TPHg) at 11,000 µg/L, benzene at 1,800 µg/L, MTBE at 7,600 µg/L, and TBA at 180,000 µg/L.

Your consultant, A & M Environmental Contracting, submitted an "ORC Injection Work Plan for Cardlock Fuels System" (the RAP) dated April 30, 2013, for the subject site. The RAP proposed to inject ORC® and RegenOx® into the groundwater to enhance intrinsic bioremediation of residual fuel constituents in the groundwater. (See Figure 2 for injection locations). Regional Board staff approved the RAP in a correspondence letter dated June 20, 2013.

Regional Board staff has determined that the proposed discharge of ORC® and RegenOx® meets the conditions specified in Order No. R4-2007-0019, "*Revised General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel, Volatile Organic Compound and/or Hexavalent Chromium Impacted Sites (General WDR)*," adopted by the Los Angeles Regional Water Quality Control Board on March 1, 2007.

Enclosed are your Waste Discharge Requirements (WDRs), consisting of General WDRs Board Order No. 2007-0019, Monitoring and Reporting Program No. CI-9965 and Standard Provisions.

The WDRs issued shall not be terminated until Regional Board staff determines the WDRs are no longer needed for the subject site.

In accordance with regulations adopted by the State Board in September 2004 regarding electronic submittal of information (ESI), the discharger has been electronically submitting monitoring reports to the State Board GeoTracker system under UST Global ID T0603702934. To comply with the Monitoring and Reporting Program (MRP) under this WDR, the discharger shall upload the WDR monitoring reports to the Geotracker under the two Global ID T0603702934 (continuing) and Global ID WDR100012704 (new). For more information regarding the new Global ID under WDR, please see ESI training video available at:

https://waterboards.webex.com/waterboards/ldr.php?AT=pb&SP=MC&rID=44145287&rKey=7dad4352c990334b.

When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to Compliance File No. CI-9965 to assure that the reports are directed to the appropriate file and staff. 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. R4-2007-0019 only to the applicant. A copy of the Order will be furnished to anyone who requests it, or on line at:
http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/general_orders/r4-2007-0019/r4-2007-0019.pdf

To avoid paying future annual fees, please submit a written request for termination of your enrollment under the general permit in a separate letter, when your project has been completed and the permit is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of the new fiscal year beginning July 1.

The discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data, discharge location data, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100012704.

If you have any questions regarding the WDRs please contact Mr. Eric Wu at (213) 620-6683 or ewu@waterboards.ca.gov. Questions regarding underground storage tank issues should be forwarded to Mr. Jimmie Woo at (213) 576-6698 or jwoo@waterboards.ca.gov.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

Enclosures: 1. Board Order No. R4-2007-0019
2. Monitoring and Reporting Program No. CI-9965
3. Standard Provisions

cc: Kathy Jundt, State Water Resources Control Board, Underground Storage Tank Cleanup Fund
Phuong Ly, Water Replenishment District of Southern California
Tim Smith, Los Angeles County Department of Public Works, Environmental Programs
Richard Lavin, County of Los Angeles, Department of Public Health Services, Drinking Water Program
Anthony Marracino, A & M Environmental Contracting

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. CI-9965
for
CARDLOCK FUELS SYSTEM, INC.
2720 EAST CARSON STREET, CARSON, CA
(OXYGEN RELEASE COMPOUND AND REGENOX FOR GROUNDWATER CLEANUP)
(ORDER NO. R4-2007-0019, SERIES NO. 229)

I. REPORTING REQUIREMENTS

A. Cardlock Fuels System, Inc. (hereinafter Discharger) shall implement this monitoring program on the effective date of this Monitoring and Reporting Program (MRP). The first monitoring report under this program shall be received at the Regional Board by **January 15, 2014**. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

Monitoring Period	Report Due
January – June	July 15th
July – December	January 15th

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the Monitoring and Reporting Program, including groundwater monitoring data, discharge location data, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100012704.

B. If there is no discharge or injection during any reporting period, the report shall so state.

C. 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.

D. 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.

E. 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.

F. 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

G. 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.

H. 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.

I. 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.

J. 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.

K. The Discharger should not implement any changes to the Monitoring and Reporting Program prior to receiving the Executive Officer's written approval.

L. In accordance with regulations adopted by the State Board in September 2004 regarding electronic submittal of information (ESI), the Discharger has been electronically submitting monitoring reports to the State Board GeoTracker system under UST Global ID T0603702934. To comply with the Monitoring and Reporting Program (MRP) under this WDR, the Discharger shall upload the WDR monitoring reports to the Geotracker under the two Global ID T0603702934 (continuing) and Global ID WDR100012704 (new).

II. DISCHARGE MONITORING REQUIREMENTS

The reports shall contain the following information regarding injection activities:

1. Location map showing application area.

2. Written summary defining:

   - Depth of insertion and depth to groundwater;
   - Quantity of oxygen release compound and RegenOx per area; and
   - Total amount of oxygen release compound and RegenOx applied at site.

3. 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 oxygen release compound and RegenOx injection. Separate injection points/wells must be installed at the site for the proposed oxygen release compound and RegenOx injection.

III. GROUNDWATER MONITORING PROGRAM

A groundwater-monitoring program shall be designed to detect and evaluate impacts associated with the oxygen release compound application. The monitoring program shall consist of upgradient well MW-B18, source well MW-B1, downgradient well MW-B17, and crossgradient wells MW-B2 and MW-B11. (See Figure 2). A baseline monitoring and sampling shall be conducted prior to the proposed oxygen release compound and RegenOx application. 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 Executive Officer. The Discharger shall conduct baseline sampling one or two weeks prior to oxygen release compound and RegenOx application and regular sampling with the required frequencies from the monitoring wells for the following constituents:

CONSTITUENT	UNITS [1]	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
pH [2]	PH units	Grab	Semi-Annually
Temperature [2]	^{0}F	grab	Semi-Annually
Oxidation-reduction potential [2]	Milivolts	grab	Semi-Annually
Specific conductivity [2]	µmhos/cm	grab	Semi-Annually
Ferrous iron	µg/L	grab	Semi-Annually
Dissolved Oxygen [2]	µg/L	grab	Semi-Annually
MTBE	µg/L	grab	Semi-Annually
Tert-Butyl Alcohol (TBA)	µg/L	grab	Semi-Annually
Di-isopropyl Ether (DIPE)	µg/L	grab	Semi-Annually
Ethyl-t-Butyl Ether (ETBE)	µg/L	grab	Semi-Annually
Tert-Amyl-Methyl Ether (TAME)	µg/L	grab	Semi-Annually
Naphthalene	µg/L	grab	Semi-Annually
Acetone	µg/L	grab	Semi-Annually
Formaldehyde	µg/L	grab	Semi-Annually
Total Petroleum Hydrocarbons as gasoline (TPHg)	µg/L	grab	Semi-Annually

Benzene	µg/L	grab	Semi-Annually
Ethylbenzene	µg/L	grab	Semi-Annually
Toluene	µg/L	grab	Semi-Annually
Total xylenes	µg/L	grab	Semi-Annually
Methane	µg/L	grab	Semi-Annually
Total organic carbon	µg/L	grab	Semi-Annually
Total dissolved solids	mg/L	grab	Semi-Annually
Sulfate	mg/l	grab	Semi-Annually
Chloride	mg/L	grab	Semi-Annually
Boron	mg/L	grab	Semi-Annually
Carbon dioxide	mg/L	grab	Semi-Annually
Manganese	µg/L	grab	Semi-Annually
Total iron	µg/L	grab	Semi-Annually
Alkalinity	µg/L	grab	Semi-Annually
Chromium (VI) [3]	mg/L	grab	Semi-Annually [3]
Total Chromium[3]	mg/L	grab	Semi-Annually [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 semi-annual sampling. If detected at any of these sampling events, the total chromium and chromium six must be monitored semi-annually *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 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.

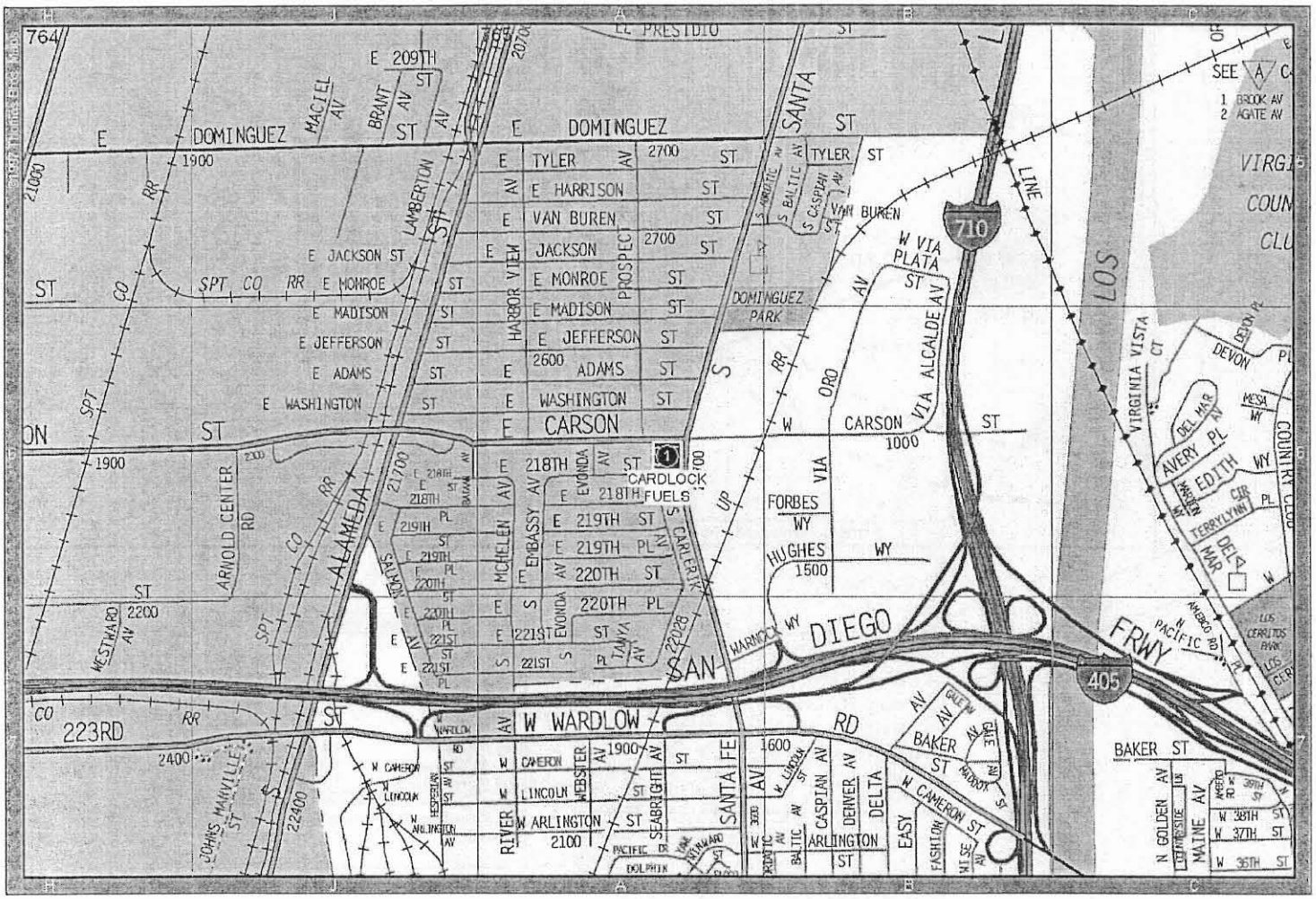
Ordered by: Samuel Unger
Samuel Unger, P.E.
Executive Officer

Date: August 30, 2013

FIG. #1

CARDLOCK FUELS SYSTEM, INC.
2720 EAST CARSON ST., CARSON, CA 90810
STATION NO. 18

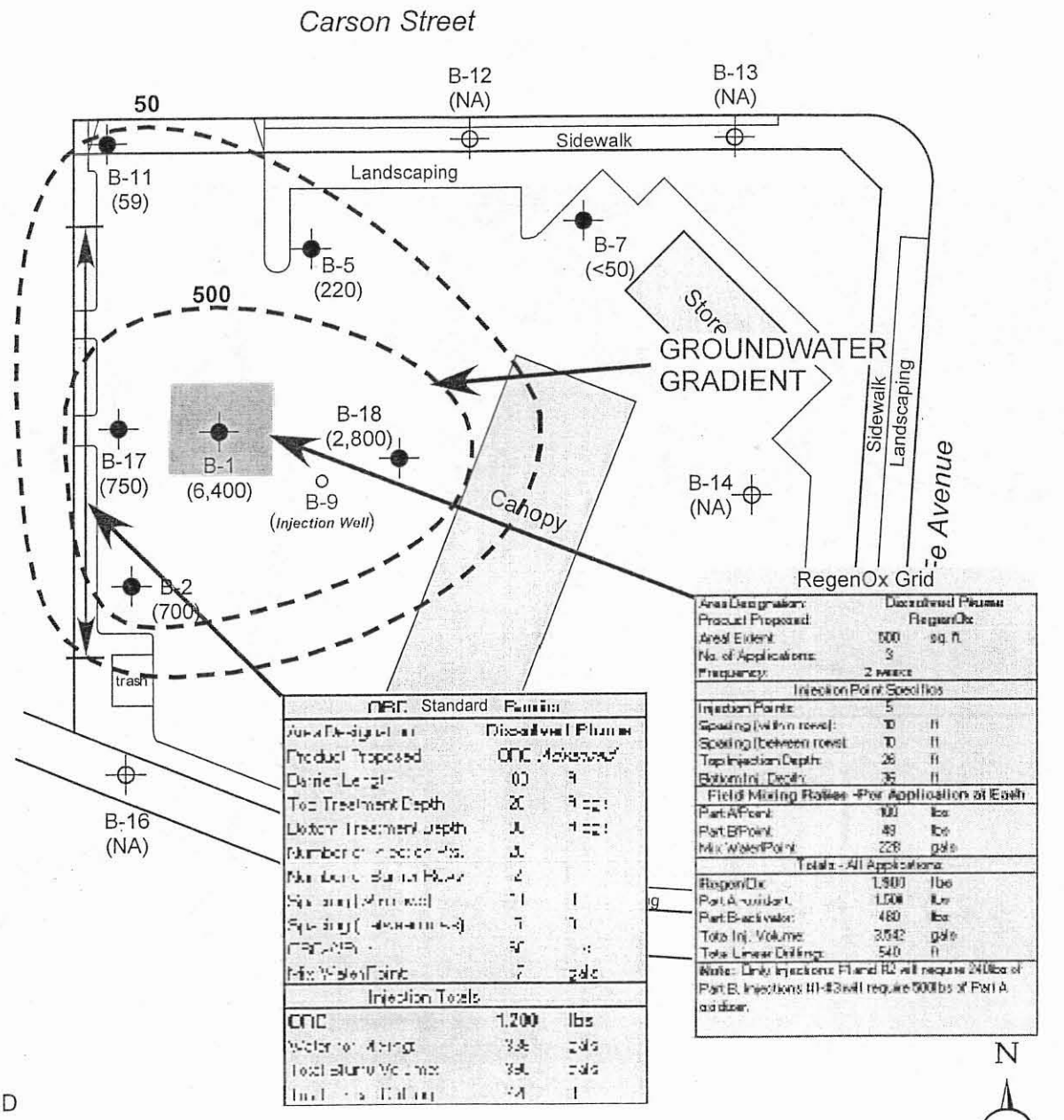
1997, THE THOMAS GUIDE, PAGE 765, GRID A6



A & M ENVIRONMENTAL CONTRACTING Remediation and Construction Services 22821 Belquest Drive Lake Forest, CA 92630 PHN: 949-951-6236, FAX: 949-837-5579	**SITE LOCATION**	15 JULY 02

CARDLOCK FUELS SYSTEM, INC.
2720 EAST CARSON ST., CARSON, CA.
STATION NO. 18

Fig. #2



ORC Standard Family	
Area Designation	Dissolved Plume
Product Proposed	ORC Advanced
Barrier Length	60 ft
Top Treatment Depth	20 ft bgs
Bottom Treatment Depth	35 ft bgs
Number of Injection Pts.	3
Number Barrier Rows	2
Spacing (within row)	10 ft
Spacing (between rows)	10 ft
Offset	5'
Mix Water/Point	72 gals
Injection Totals	
ORC	1,200 lbs
Water for Mixing	936 gals
Total Slurry Volume	936 gals
Total Linear Drilling	60 ft

Area Designation:	Dissolved Plume	
Product Proposed:	RegenOx	
Area Extent:	500	sq. ft.
No. of Applications:	3	
Frequency:	2 weeks	
Injection Point Specifics		
Injection Points:	5	
Spacing (within rows):	10	ft
Spacing (between rows):	10	ft
Top Injection Depth:	26	ft
Bottom Inj. Depth:	35	ft
Field Mixing Ratios -Per Application at Each		
Part A Point:	100	lbs
Part B Point:	48	lbs
Mix Water/Point:	228	gals
Totals - All Applications		
RegenOx:	1,500	lbs
Part A oxidant:	1,000	lbs
Part B activator:	480	lbs
Tota Inj. Volume:	3542	gals
Tota Linear Drilling:	540	ft

Note: Only injections P1 and P2 will require 240lbs of Part B. Injections P3-P5 will require 500lbs of Part A oxidizer.

LEGEND

- Location of groundwater monitoring well. Concentration shown in parenthesis in parts per billion.
- Location of inactive groundwater monitoring well.
- 10 Concentration contour of equal magnitude (estimated).

A & M Environmental Contracting Remediation And Construction Services 22821 Belquest Drive Lake Forest, Ca 92630 Phn: 949-951-6236, Fax 949-837-5579	**GASOLINE CONCENTRATION CONTOURS FOR GROUNDWATER**	June 11, 1013