



Los Angeles Regional Water Quality Control Board

April 16, 2019

Mr. Eric Winquist
1800 Rosecrans Partners, LLC
2301 Rosecrans Avenue, Suite 1150
El Segundo, California 90245

Certified Mail
Return Receipt Required
Claim No. 7018 1830 0001 5952 8101

REVISED MONITORING AND REPORTING PROGRAM NO. CI-9584 – FORMER FAIRCHILD CONTROLS FACILITY, 1800 ROSECRANS AVENUE, MANHATTAN BEACH, CALIFORNIA (FILE NO. 15-085, ORDER NO. R4-2014-0187, SERIES NO. 040, CI-9584, GLOBAL ID. WDR100000332)

Dear Mr. Winquist:

On November 4, 2015, the Los Angeles Regional Water Quality Control Board (Regional Board) enrolled 1800 Rosecrans Partners LLC (Discharger) under General Waste Discharge Requirements (WDR) for In-Situ Groundwater Remediation and Groundwater Re-injection, Order No. R4-2014-0187, with Monitoring and Reporting Program (MRP) No. CI-9584 for groundwater remediation of volatile organic compounds (VOCs) and hexavalent chromium at the subject site.

The Discharger submitted the *Revised Pilot Study Addendum for Former Fairchild Controls Facility - Area B* (Revised Addendum) dated January 23, 2019 to propose additional injection of materials to further treat VOCs in groundwater. On March 4, 2019, Regional Board Site Cleanup staff approved the Revised Addendum.

It is estimated that 52,000 gallons of substrate solution containing 21,845 pounds of methanol (equivalent to 2,622 gallons) and 16,800 pounds of emulsified vegetable oil (equivalent to 2,200 gallons) will be injected into two injection wells, IWC-1D at depths from 100 to 110 feet below ground surface (bgs) and IWC-1LG at depths from 135 to 145 feet bgs.

The proposed discharge shall not cause the mineral constituents of the receiving groundwater at the compliance point, downgradient outside the application area, to be in excess of applicable limits (West Coast Subbasin of the Coastal Plain of Los Angeles Groundwater Basin) given in Attachment B of General WDRs Order No. R4-2014-0187. The groundwater quality objectives are 800 milligrams per liter (mg/L) for total dissolved solids, 250 mg/L for sulfate, 250 mg/L for chloride, and 1.5 mg/L for boron.

IRMA MUÑOZ, CHAIR | DEBORAH SMITH, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

The revised MRP, which incorporates additional injection of materials, is enclosed. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the revised MRP, including groundwater monitoring data, discharge location data, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100000332. Please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

For all parties who upload electronic documents to State Database GeoTracker, it is no longer necessary to email a copy of these documents to losangeles@waterboards.ca.gov or submit hard copies to our office. The Regional Board will no longer accept documents (submitted by either hard copy or email) already uploaded to GeoTracker. Please see Electronic Submittal to the Los Angeles Regional Board for GeoTracker Users dated December 12, 2011 at: <http://www.waterboards.ca.gov/losangeles/resources/Paperless/Paperless%20Office%20for%20GT%20Users.pdf>

To avoid paying future annual fees, please submit a written request for termination of your enrollment under the general WDR in a separate letter when the project is completed and the WDR 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.

If you have any questions, please contact the Project Manager, Dr. Ann Chang at (213) 620-6122 (ann.chang@waterboards.ca.gov), or the Chief of Groundwater Permitting Unit, Dr. Eric Wu at (213) 576-6683 (eric.wu@waterboards.ca.gov).

Sincerely,



Executive Officer

Enclosure: Revised Monitoring and Reporting Program No. CI-9584 dated April 16, 2019

cc: Mr. Brett Bowyer, Bowyer Environmental Consulting, Inc.

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

REVISED MONITORING AND REPORTING PROGRAM NO. CI-9584
FOR
FORMER FAIRCHILD CONTROLS FACILITY
1800 ROSECRANS AVENUE, MANHATTAN BEACH, CALIFORNIA

ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2014-0187 (SERIES NO. 040)
FILE NO. 15-085

I. MONITORING AND REPORTING REQUIREMENTS

- A. 1800 Rosecrans Partners, LLC (hereinafter Discharger) shall implement this Monitoring and Reporting Program (MRP) on the effective date (April 16, 2019) under Regional Board Order No. R4-2014-0187. The next monitoring report under this program shall be received at the Regional Board by **July 30, 2019**. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
January – March	April 30
April – June	July 30
July – September	October 30
October – December	January 30

- B. If there is no discharge or injection, during any reporting period, the report shall so state. By March 1 of each year, 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 discuss 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.
- C. The Discharger shall comply with requirements contained in Section G of Regional Board Order No. R4-2014-0187 "*Monitoring and Reporting Requirements*".

II. BIOAUGMENTATION CULTURE INJECTION

A. DISCHARGE MONITORING PROGRAM

The monitoring reports shall contain the following information regarding the injection activities:

1. Location map showing injection points used for calcium carbonate, sodium bicarbonate, cheese whey, emulsified vegetable oil, and bioaugmentation culture.
2. Written and tabular summary defining depth of injection points, quantity of calcium carbonate, sodium bicarbonate, cheese whey, emulsified vegetable oil, and bioaugmentation culture injected at each injection point, and total amount of calcium carbonate, sodium bicarbonate, cheese whey, emulsified vegetable oil, and bioaugmentation culture injected at the Site.
3. Visual inspection at each injection point shall be conducted and recorded during the injection.

B. GROUNDWATER MONITORING PROGRAM

A groundwater monitoring program shall be implemented to evaluate impacts associated with the injection activity. Groundwater samples shall be collected from monitoring wells N-2, N-2D, OB-3S, OB-3D, OB-6S, OB-6D, OB-7S, OB-8S, OB-8D, OB-18S, OB-18D, and OB-29D (Figures 1, 2, and 3). The Discharger shall conduct a baseline sampling prior to the proposed injection, followed by specified schedules from all 12 monitoring wells for the following groundwater parameters:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Dissolved Oxygen	mg/L	grab	Baseline and quarterly after injection
Oxidation-Reduction Potential	millivolts	grab	Baseline and quarterly after injection
pH	pH units	grab	Baseline and quarterly after injection
Specific Conductivity	mS/cm	grab	Baseline and quarterly after injection

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Temperature	°C	grab	Baseline and quarterly after injection
Turbidity	NTU	grab	Baseline and quarterly after injection
Total Organic Carbon	mg/L	grab	Baseline and quarterly after injection
Total Dissolved Solids	mg/L	grab	Baseline and quarterly after injection
Sulfate	mg/L	grab	Baseline and quarterly after injection
Chloride	mg/L	grab	Baseline and quarterly after injection
Boron	mg/L	grab	Baseline and quarterly after injection
Nitrate and Nitrite	mg/L	grab	Baseline and quarterly after injection
Total Chromium and Hexavalent Chromium	µg/L	grab	Baseline and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Baseline and quarterly after injection
Dissolved Gases (methane, ethane, and ethene)	µg/L	grab	Baseline and quarterly after injection
<i>Dehalococcoides</i> species	cells/mL	grab	Baseline and quarterly after injection

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. Observation of groundwater levels recorded to 0.01 feet mean sea level and groundwater flow direction.

III. FERROUS SULFATE INJECTION

A. DISCHARGE MONITORING PROGRAM

The monitoring reports shall contain the following information regarding the injection activities:

1. Location map showing injection points used for ferrous sulfate, sodium hydroxide, calcium carbonate, sodium bicarbonate, cheese whey, emulsified vegetable oil, sodium dithionite, and methanol.
2. Written and tabular summary defining depth of injection points, quantity of ferrous sulfate, sodium hydroxide, calcium carbonate, sodium bicarbonate, cheese whey, emulsified vegetable oil, sodium dithionite, and methanol injected at each injection point, and total amount of ferrous sulfate, sodium hydroxide calcium carbonate, sodium bicarbonate, cheese whey, emulsified vegetable oil, sodium dithionite, and methanol injected at the Site.
3. Visual inspection at each injection point shall be conducted and recorded during the injection.

B. GROUNDWATER MONITORING PROGRAM

A groundwater monitoring program shall be implemented to evaluate impacts associated with the injection activity. Groundwater samples shall be collected from monitoring wells OB-30D, OB-30LG, OB-32D, OB-32LG, and OB-35D, (Figures 1 and 4). The Discharger shall conduct a baseline sampling prior to the proposed injection, followed by specified schedules from all five monitoring wells for the following groundwater parameters:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Dissolved Oxygen	mg/L	grab	Baseline and quarterly after injection
Oxidation-Reduction Potential	millivolts	grab	Baseline and quarterly after injection
pH	pH units	grab	Baseline and quarterly after injection
Specific Conductivity	mS/cm	grab	Baseline and quarterly after injection

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Temperature	°C	grab	Baseline and quarterly after injection
Turbidity	NTU	grab	Baseline and quarterly after injection
Total Organic Carbon	mg/L	grab	Baseline and quarterly after injection
Total Dissolved Solids	mg/L	grab	Baseline and quarterly after injection
Sulfate	mg/L	grab	Baseline and quarterly after injection
Chloride	mg/L	grab	Baseline and quarterly after injection
Boron	mg/L	grab	Baseline and quarterly after injection
Nitrate and Nitrite	mg/L	grab	Baseline and quarterly after injection
Total Chromium and Hexavalent Chromium	µg/L	grab	Baseline and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Baseline and quarterly after injection

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. 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

All records and reports submitted in compliance with Regional Board Order No. R4-2014-0187 and Monitoring and Reporting Program No. CI-9584 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.

Former Fairchild Controls Facility
WDR Order No. R4-2014-0187
Revised Monitoring and Reporting Program No. CI-9584

VII. ELECTRONIC SUBMITTAL OF INFORMATION

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including groundwater monitoring data in Electronic Deliverable Format, discharge location data, and searchable Portable Document Format of monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100000332.

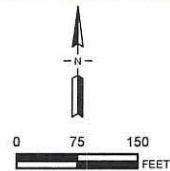
Ordered by: 
Renee Purdy
Executive Officer

Date: April 16, 2019



EXPLANATION

- WDR GROUNDWATER MONITORING WELL
- WDR INJECTION WELL



NOTE: CURRENT WELL LOCATIONS AS OF MARCH 2019.

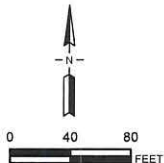
 BEC	BEC 17011 Beach Boulevard, Suite 900 Huntington Beach, CA 92647 Tel. (877) 232-4620 Fax (714) 494-1912	WDR WELL LOCATIONS FORMER FAIRCHILD CONTROLS FACILITY 1800 Rosecrans Avenue, Manhattan Beach, California	Project No. 09004008	Figure 1




Source: Esri, DigitalGlobe, GeoEye, Earthstar/Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

EXPLANATION

- WDR GROUNDWATER MONITORING WELL
- WDR INJECTION WELL



NOTE: CURRENT WELL LOCATIONS AS OF MARCH 2019.

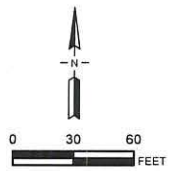
 BEC	BEC 17011 Beach Boulevard, Suite 900 Huntington Beach, CA 92647 Tel. (877) 232-4620 Fax (714) 494-1912	AREA A1 WELL LOCATIONS FORMER FAIRCHILD CONTROLS FACILITY 1800 Rosecrans Avenue, Manhattan Beach, California	Project No. 09004008	Figure 2



Source: Esri, DigitalGlobe, GeoEye, Earthstar/Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

EXPLANATION

- WDR GROUNDWATER MONITORING WELL
- WDR INJECTION WELL



NOTE: CURRENT WELL LOCATIONS AS OF MARCH 2019.


BEC
 17011 Beach Boulevard, Suite 900
 Huntington Beach, CA 92647
 Tel. (877) 232-4620
 Fax (714) 494-1912

AREA A2 WELL LOCATIONS
 FORMER FAIRCHILD CONTROLS FACILITY
 1800 Rosecrans Avenue, Manhattan Beach, California

Project No. 09004008	Figure 3
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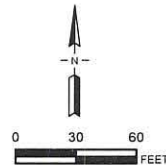


Source: Esri, DigitalGlobe, GeoEye, Earthstar/Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

EXPLANATION

- WDR GROUNDWATER MONITORING WELL
- WDR INJECTION WELL

NOTE: CURRENT WELL LOCATIONS AS OF MARCH 2019.



 BEC	BEC 17011 Beach Boulevard, Suite 900 Huntington Beach, CA 92647 Tel. (877) 232-4620 Fax (714) 494-1912	AREA B WELL LOCATIONS FORMER FAIRCHILD CONTROLS FACILITY 1800 Rosecrans Avenue, Manhattan Beach, California	Project No. 09004008	Figure 4