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GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

January 27, 2014

Mr. Anthony Espinoza
Office of Environmental Health and Safety
Los Angeles Unified School District
333 South Beaudry Avenue, 28th Floor
Los Angeles, CA 90017

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10008 – LOS ANGELES ACADEMY MIDDLE SCHOOL, LOS ANGELES, CALIFORNIA (FILE NO. 13-141, CI-10008, ORDER NO. R4-2007-0019, SERIES NO. 241, GLOBAL ID WDR100014749)

Dear Mr. Espinoza:

On December 20, 2013, Los Angeles Unified School District (LAUSD) (hereinafter Discharger) was provided coverage under Waste Discharge Requirements (WDR) Order No. R4-2007-0019 by the Los Angeles Regional Water Quality Control Board (Regional Board). The application of in-situ chemical reduction pilot testing for groundwater remediation was regulated under the WDR and its corresponding Monitoring and Reporting Program (MRP) No. CI-10008.

Section III of MRP No. CI-10008 specifies that monitoring wells TTMW-2, MW-6, MW-8, MW-24, MW-25, MW-26, MW-27, and MW-28 are to be included in the monitoring program.

LAUSD proposes downgradient well MW-7 be included in the monitoring program instead of TTMW-2 in the original monitoring program because well MW-7 is owned by LAUSD. TTMW-2 is currently owned by a third party and access to the well may be limited. Both TTMW-2 and MW-7 are located downgradient of the groundwater remediation area and are in proximity of each other. In addition, the well identifications for the newly installed monitoring wells in the pilot test area were changed to MW-29 through MW-32 (instead of MW-25 through MW-28) during well installation.

Regional Board staff concurs with the monitoring well revision because only one well was modified in the monitoring program and the replacement well is located in proximity of the original well and downgradient of the pilot test area. The revised Monitoring and Reporting Program, which incorporates the requested modifications, is enclosed.

The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports and correspondence 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 WDR100014749. ESI training video is available at:

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

MARIA MEHRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

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

Mr. Anthony Espinoza
Los Angeles Unified School District

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January 27, 2014

Please see Electronic Submittal for Geotracker Users, dated December 12, 2011, at:
<http://www.waterboards.ca.gov/losangeles/resources/Paperless/Paperless%20Office%20for%20OGT%20Users.pdf>.

If you have any additional questions, please contact the Project Manager, Mr. David Koo at (213) 620-6155 (dkoo@waterboards.ca.gov) or the Unit Chief, Dr. Eric Wu at (213) 576-6683 (ewu@waterboards.ca.gov).

Sincerely,


Samuel Unger, P.E.
Executive Officer

Enclosure: Monitoring and Reporting Program No. CI-10008 revised on date January 27, 2014

cc: Mr. Joe Hwong, DTSC Cypress
Mr. Ning-Wu Chang, DTSC Cypress
Mr. Jude Francis, URS Corporation
Ms. Cynthia Shen, URS Corporation
Mr. Brian Jacobs, URS Corporation

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

**MONITORING AND REPORTING PROGRAM NO. CI-10008
FOR
LOS ANGELES ACADEMY MIDDLE SCHOOL
644 EAST 56TH STREET
LOS ANGELES, CA**

**ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2007-0019 (SERIES NO. 241)
FILE NO. 13-141**

I. REPORTING REQUIREMENTS

- A. The Los Angeles Unified School District (LAUSD) (hereinafter Discharger) shall implement this revised Monitoring and Reporting Program (MRP) at 644 East 56th Street, Los Angeles, California, the location of which is shown on Figure 1, under Regional Board Order No. R4-2007-0019. The first monitoring report under this monitoring program is due by April 15, 2014.

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.
- C. By January 31st of each year, beginning January 31, 2015, 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.
- D. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certifications shall be provided each time a new and/or renewal is obtained from ELAP.

- E. The method limits (MLs) employed for 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 Executive Officer. At least once a year, 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.
- F. 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. Proper chain of custody procedures must be followed and a copy of the chain of custody documentation shall be submitted with the report.
- G. 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 the report.
- H. For every item where the requirements are not met, the Discharger shall submit a statement of the cause(s), and actions undertaken or proposed which will bring the discharge into full compliance with waste discharge requirements at the earliest possible time, including a timetable for implementation of those actions.
- I. The Discharger shall maintain all sampling and analytical results, including strip charts, 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.
- 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. 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.

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

II. INJECTION MONITORING REQUIREMENTS

Reagent Injections - Three injection tests (field pilot tests) shall be performed at the Site per URS Corporation's (URS') Technical Memorandum – Pilot Study Work Plan dated November 12, 2013. The injection utilizes emulsified vegetable oil (SRS-SD) and EHC-L with optional injection of calcium polysulfide (CPS) in Phase 1, and injection of zero-valent iron (ZVI) with optional injection of CPS in Phase 2.

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 wells.
2. Written summary defining:
 - Depth of injection;
 - Total volume and concentration of the reagent solution injected;
 - Reagent injection flow rate; and
 - Reagent injection pressures.

III. GROUNDWATER MONITORING PROGRAM FOR THE REMEDIATION PROJECT

A groundwater monitoring program shall be designed to detect and evaluate impacts associated with the pilot study injection activities. The monitoring program shall assess performance of the pilot study by sampling monitoring wells located within the anticipated pilot study area of influence. Given these monitoring objectives, the following groundwater wells shall be included in the monitoring program:

Pilot Study Monitoring Wells: MW-6, MW-7, MW-8, MW-24, MW-29, MW-30, MW-31, MW-32

The following shall constitute the Monitoring and Reporting Program for groundwater monitoring wells identified above. Table 1, below, identifies the constituents that shall be analyzed during the baseline sampling event conducted prior to the injections, and subsequent groundwater monitoring events during the monitoring period for the purpose of evaluating the effectiveness of the injections. The locations of the monitoring wells are shown on Figure 2 (attached). 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.

TABLE 1 – Groundwater Monitoring Constituents

<u>CONSTITUENT</u>	<u>UNITS</u> ¹	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
Water Temperature ²	°C	Low-flow sample	Baseline; one month, three months, and six months post injection
Specific Conductance ²	µS/cm	Low-flow sample	Baseline; one month, three months, and six months post injection
Dissolved Oxygen ²	mg/L	Low-flow sample	Baseline; one month, three months, and six months post injection
pH ²	pH units	Low-flow sample	Baseline; one month, three months, and six months post injection
Oxidation-Reduction Potential ²	mV	Low-flow sample	Baseline; one month, three months, and six months post injection
Volatile Organic Compounds (EPA Method 8260B)	µg/L	Low-flow sample	Baseline; one month, three months, and six months post injection
Chloride (EPA Method 300)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Nitrate (EPA Method 300)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Sulfate (EPA Method 300)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Ethene (AM20GAX)	µg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Ethane (AM20GAX)	µg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Methane (AM20GAX)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Sulfide (SM 4500)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Total Organic Carbon (SM 5310B)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Alkalinity (SM 2320B)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Total Dissolved Solids (EPA Method 160.1 or SM 2540C)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Boron (EPA Method 6010B)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Ferrous Iron (SM 3500)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection
Manganese (EPA Method 6010B)	mg/L	Low-flow sample	Baseline; at one month, three months, and six months post injection

¹ mg/L: milligrams per liter; µg/L: micrograms per liter; µS/cm: microsiemens per centimeter; mV: millivolts;
°C: degree Celsius.

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

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. ELECTRONIC SUBMITTAL OF INFORMATION (ESI) TO GEOTRACKER

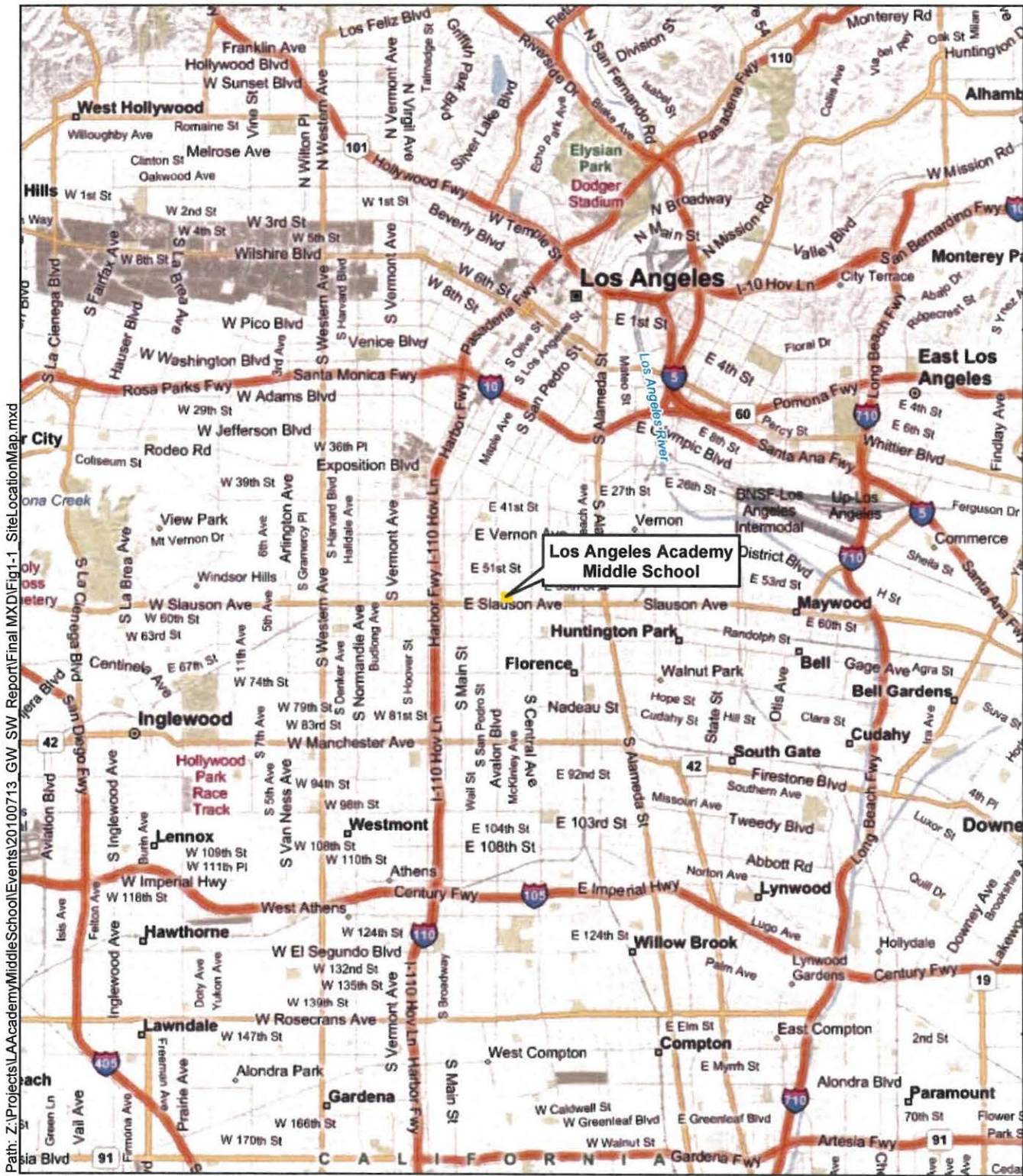
The Discharger shall comply with the Electronic Submittal of information (ESI) requirements by submitting all reports required under the MRP, including groundwater

monitoring data, discharge location data, correspondence, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100014749.

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.

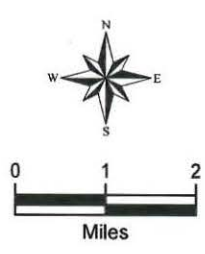
Ordered by: Samuel Unger
Samuel Unger, P.E.
Executive Officer

Date: January 27, 2014



Path: Z:\Projects\LA Academy Middle School\Events\20100713_GW_SW_Report\Final\MXD\Fig1-1_SiteLocationMap.mxd

Source: (c)2009 Microsoft Corporation



Los Angeles Academy Middle School
 Los Angeles, California

Site Location Map

Figure 1



EXPLANATION

- SHALLOW GROUNDWATER MONITORING WELL
- DEEP GROUNDWATER MONITORING WELL
- ⊙ NESTED GROUNDWATER MONITORING WELL
- ⊖ DESTROYED GROUNDWATER MONITORING WELL
- ⊕ INJECTION WELL
- LAAMS BOUNDARY
- - - OUG BOUNDARY
- TCE ISOCENTRATION CONTOUR IN µg/L
- Cl(VI) ISOCENTRATION CONTOUR IN µg/L
- ◆ PROPOSED INJECTION WELL LOCATIONS
- PROPOSED MONITORING WELL LOCATIONS (EXISTING MONITORING WELLS MW-4 AND MW-6 PROPOSED TO BE USED DURING PILOT STUDY)



URS	
PRELIMINARY INJECTION LAYOUT FOR PILOT STUDY	
Proj. No.: 29403690	Date: SEPTEMBER 2013
Project: LOS ANGELES ACADEMY MIDDLE SCHOOL, LOS ANGELES, CALIFORNIA	Figure: 2