January 4, 2019

Ms. Narine Aghakiant
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, CA 91311

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CLAIM NO. 7015 2400 0000 9373 4546

REVISED MONITORING AND REPORTING PROGRAM – IN-SITU CHEMICAL REDUCTION OF HEXAVALENT CHROMIUM IN GROUNDWATER AT FORMER HARD CHROME PRODUCTS, 617 EAST 56TH STREET, LOS ANGELES, CALIFORNIA, 90011 (FILE NO. 17-031, CI-10306, ORDER NO. R4-2014-0187, SERIES NO. 094, GLOBAL ID WDR100039655)

Dear Ms. Aghakiant:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses of water within major portions of Los Angeles and Ventura Counties, including the property referenced above.

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (hereinafter Discharger) is the responsible party for the subject property at 617 east 56th Street, Los Angeles, California (Site) (Figure 1). The Site consists of the parcels with Los Angeles County Tax Accessor's Identification Numbers 5103-012-020 and 5103-012-021.

In April 2017, under General WDR Order No. R4-2014-0187 the Discharger successfully injected a total of approximately 78,330 gallons of 5% calcium polysulfide (CPS) solution into injection wells INJ-1, INJ-2, and INJ-3, at depths of approximately 155 to 175 feet below grade (bg), on the south side of East 56th Street, as part of hexavalent chromium remediation. The CPS solution chemically reduced the hexavalent chromium to trivalent chromium and lowered hexavalent chromium concentration in groundwater. August 2018 groundwater data for well MW-34, on the south side of 56th street, is representative of groundwater conditions at the proposed injection depths and locations, and indicates hexavalent chromium is present at up to 86,000 micrograms/liter (µg/L) in the proposed injection area.

Parsons, Inc., representing the Discharger, submitted an April 17, 2018 Technical Memorandum with the subject *Proposed Phase II Supplemental Groundwater Injection Program* (Tech Memo), to DTSC and the Regional Board. DTSC approved the Tech Memo in a December 4, 2018 letter. The Tech Memo proposes additional injections of approximately 26,437 gallons of 5% CPS solution into each of five injection wells (INJ-4, INJ-5, INJ-6, INJ-7, and INJ-8) screened from 155 feet to 175 feet below grade within the hexavalent chromium plume beneath 56th Street (Figure 2). The total volume injected for all wells shall not exceed 132,185 gallons. Injection pressures shall not exceed 40 pounds per square inch and flow rates shall not exceed 25 gallons per minute.

Regional Board staff have reviewed the Tech Memo and information in our files and have determined that the proposed discharge modification meets the conditions specified in General WDR Order No. R4-2014-0187. You shall implement revised MRP No. CI-10306 (attached). Should changes to the discharge be needed, revised calculations and engineering drawings showing the changes must be filed with the Regional Board a minimum of 30 days prior to the changes. The Discharger must receive approval from the Regional Board for such changes prior to implementation.

Injection monitoring shall include sampling wells HC-3, MW-4, MW-6, MW-18, and MW-30 as described in MRP No. CI-10306 (attached).

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 portable document format (PDF) copies of the monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100039655. Please see Electronic Submittal 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 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.

If you have any additional questions, please contact the Project Manager, Mr. Peter Raftery at (213) 620-6156 (Peter.Raftery@waterboards.ca.gov) or the Unit Chief, Dr. Eric Wu at (213) 576-6683 (Eric.Wu@waterboards.ca.gov).

Sincerely,

for Deborah J. Smith
Executive Officer

Enclosures: Revised Monitoring and Reporting Program No. CI-10306

cc (via email) : Mr. Jim Goepel, Parsons, Inc., Pasadena

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

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10306
FOR
IN-SITU CHEMICAL REDUCTION OF HEXAVALENT CHROMIUM IN GROUNDWATER
617 EAST 56TH STREET
LOS ANGELES, CA 90011

ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2014-0187 (SERIES NO. 094)
FILE NO. 17-031

I. REPORTING REQUIREMENTS

A. The Department of Toxic Substances Control (Hard Chrome Products) (hereinafter Discharger) shall implement this revised Monitoring and Reporting Program (MRP) at 617 East 56th Street, Los Angeles, California, the location of which is shown on Figures 1 and 2, on the effective date of this enrollment (January 4, 2019), under Regional Board Order No. R4-2014-0187. The first monitoring report under this monitoring program is due by January 30, 2019.

Monitoring reports shall be received by the dates in the following schedule:

Reporting Period	Report Due
January – March	April 30
April – June	July 30
July – September	October 30
October – December	January 30

B. If there is no discharge or injection of calcium polysulfide (CPS) solution during any reporting period, the report shall so state.

C. By January 31st of each year, beginning January 31, 2020, 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/or toxicity analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) Environmental Laboratory Accreditation Program (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 SWRCB-DDW ELAP, 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. Any mitigation/remedial activity including any pre-discharge treatment conducted at the site must be reported in the quarterly monitoring report.

L. 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 Waste Discharge Requirements (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.

M. The Discharger shall comply with requirements contained in Section G of Order No. R4-2014-0187 "*Monitoring and Reporting Requirements*" in addition to the aforementioned requirements.

II. MONITORING REQUIREMENTS

The quarterly reports shall contain the following information regarding the CPS solution activities:

- 1. Location map showing injection points used for CPS injection, and monitoring wells.
- 2. Written and tabular summary defining depth of injection points, quantity and concentration of CPS solution injected at each injection point.
- 3. Visual inspection at each injection point shall be conducted and recorded during injection.

III. GROUNDWATER MONITORING PROGRAM

A groundwater monitoring program shall be designed to detect and evaluate impacts associated with the CPS activities. The monitoring program shall assess: (i) performance of the interim measures by sampling monitoring wells located within the anticipated interim measures area of influence and (ii) potential downgradient impacts associated with the CPS activities by sampling downgradient performance monitoring wells. Given these monitoring objectives, the following groundwater wells shall be included in the monitoring program:

Upgradient monitoring well:	MW-4
Treatment zone monitoring well:	MW-30
Cross-gradient monitoring wells:	MW-18 (Northeast) MW-6 (Southwest)
Downgradient monitoring well:	HC-3

The following shall constitute the Monitoring and Reporting Program for the groundwater monitoring wells identified above. Table 1, below, identifies the constituents that shall be analyzed during the baseline sampling event prior to injection and subsequent groundwater monitoring events for the purpose of evaluating the effectiveness of the

injections. The locations of the monitoring wells are shown on. 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

CONSTITUENT	UNITS [1]	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Water Temperature[2]	°C	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Specific Conductance[2]	µS/cm	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Dissolved Oxygen[2]	mg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter after immediately the one month sampling)
pH[2]	pH units	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Oxidation-Reduction Potential[2]	mV	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Turbidity[2]	NTUs	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Total Chromium	µg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Hexavalent Chromium	µg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Volatile Organic Compounds	µg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Chloride	mg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)

Sulfate	mg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Boron	mg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Total Organic Carbon	mg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Total Dissolved Solids	mg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)
Title 22 Metals	µg/L	grab	Baseline, one month following injection, and quarterly thereafter (beginning the first quarter immediately after the one month sampling)

[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, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database under Global ID WDR100039655.

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: _____ Date: January 4, 2019
for Deborah J. Smith
Executive Officer

REFERENCE: TOPO! 2001 National Geographic Holdings

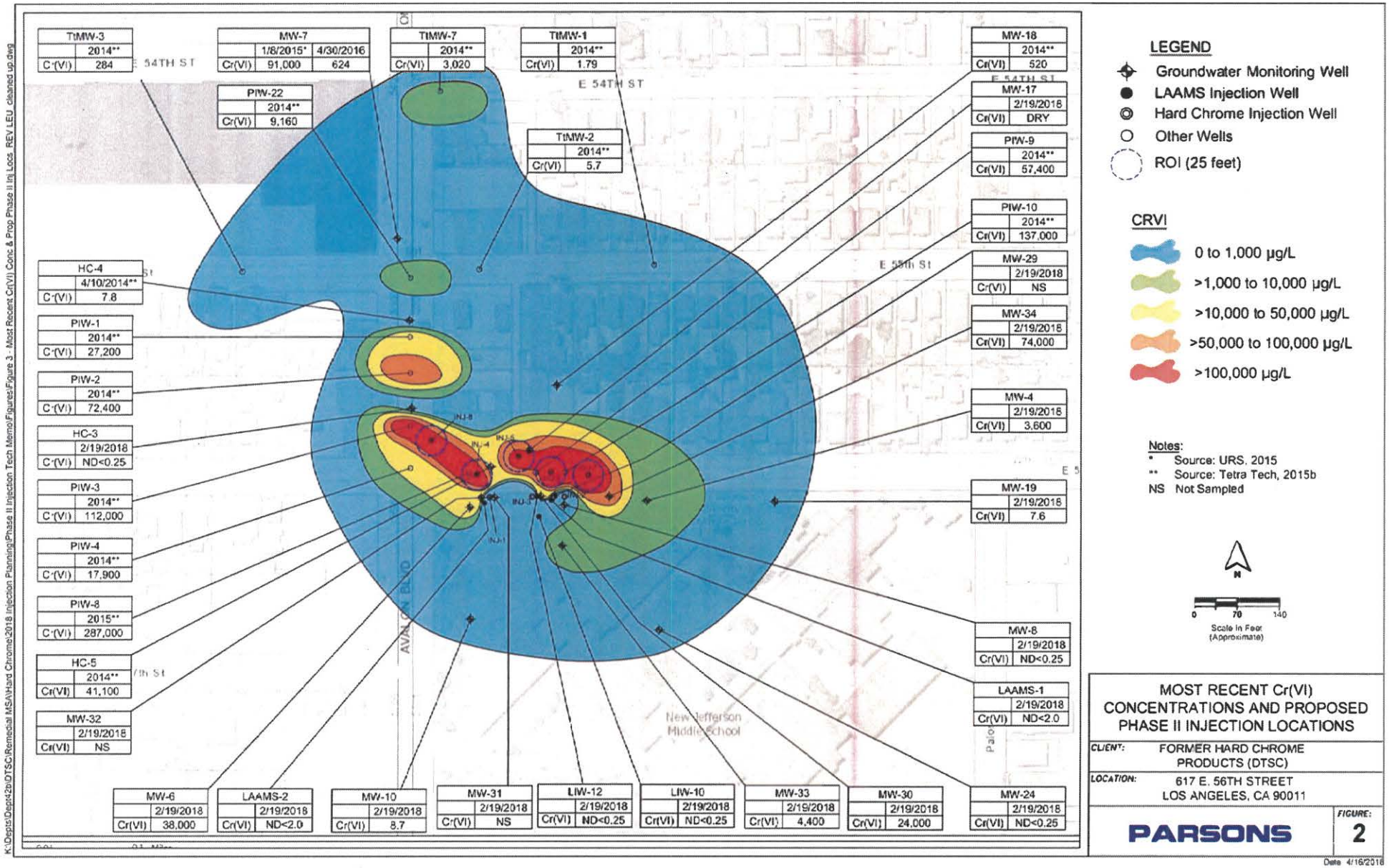
0 1000 FEET

PARSONS

Figure 1

Site Vicinity Map
Hard Chrome Products

K:\Depts\Dept42b\DTSC\Remedial MSA\Hard Chrome\2018 Injection Planning\Figures\Figure 1 - Site Vicinity Map.dwg



MOST RECENT Cr(VI) CONCENTRATIONS AND PROPOSED PHASE II INJECTION LOCATIONS

CLIENT: FORMER HARD CHROME PRODUCTS (DTSC)

LOCATION: 617 E. 56TH STREET LOS ANGELES, CA 90011

PARSONS

FIGURE: 2

Date 4/16/2018

K:\Depts\Dept42b\DTSC\Remedial MSA\Hard Chrome\2018 Injection Planning\Phase II Injection Tech Memo\Figures\Figure 3 - Most Recent Cr(VI) Conc & Prop Phase II Inj Locs_REV LEU_cleaned up.dwg