October 25, 2019

Mr. Charles Ammann
Semtech Corporation
200 Flynn Road
Camarillo, California 93012

Certified Mail
Return Receipt Required
Claim No. 7018 2290 0001 8905 2923

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10350 – FORMER SEMTECH CORPORATION FACILITY, 652 MITCHELL ROAD, NEWBURY PARK, CALIFORNIA (FILE NO. 17-075, ORDER NO. R4-2014-0187, SERIES NO. 103, CI-10350, GLOBAL ID. WDR100039709)

Dear Mr. Ammann:

On September 22, 2017, the Los Angeles Regional Water Quality Control Board (Regional Water Board) enrolled Semtech Corporation (Discharger) under General Waste Discharge Requirements (WDR) for In-Situ Groundwater Remediation and Groundwater Re-injection, Order No. R4-2014-0187 with a Monitoring and Reporting Program (MRP) No. CI-10350 for injection of sodium permanganate solution and re-injection of treated groundwater as part of the groundwater remediation at the subject site.

To optimize ongoing groundwater remediation activities, the Discharger submitted the *Post-Sodium Permanganate Injection at MPE-4 Sample Results* (Request) dated June 6, 2019 to propose additional injection quantity of sodium permanganate solution at well MPE-4 for in-situ chemical oxidation treatment of volatile organic compounds and installation of two additional injection wells IW-7 and IW-8 to inject treated groundwater for hydraulic flushing operations. On September 27, 2019, the Regional Water Board Site Cleanup Unit staff approved the Request.

It is estimated that 5,257,500 gallons of 0.5% sodium permanganate solution will be injected into well MPE-4 at depths from approximately 40 to 55 feet below ground surface (bgs). In addition, approximately 86,400 gallons per day (daily maximum volume) of treated groundwater will be injected into eight injection wells (IW-1 through IW-8) at depths from approximately 15 to 50 feet bgs.

The revised MRP, which incorporates additional injection quantity and additional injection wells, 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 WDR100039709. 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,

Renee Purdy
Executive Officer

Enclosure: Revised Monitoring and Reporting Program No. CI-10350 dated October 25, 2019

cc: Ms. Linda Tuley, Stantec Consulting Services Inc.

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

REVISED MONITORING AND REPORTING PROGRAM NO. CI-10350
FOR
FORMER SEMTECH CORPORATION FACILITY
652 MITCHELL ROAD, NEWBURY PARK, CALIFORNIA

ENROLLMENT UNDER REGIONAL WATER BOARD
ORDER NO. R4-2014-0187 (SERIES NO. 103)
FILE NO. 17-075

I. MONITORING AND REPORTING REQUIREMENTS

A. Semtech Corporation (hereinafter Discharger) shall implement this Monitoring and Reporting Program (MRP) on the effective date (October 25, 2019) under Regional Water Board Order No. R4-2014-0187. The next monitoring report shall be received at the Regional Water Board by **January 30, 2020**. Subsequent monitoring reports shall be received at the Regional Water Board according to the following schedule:

Monitoring 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, 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 Water 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 Water Board Order No. R4-2014-0187 "*Monitoring and Reporting Requirements"*.

II. PHASE I: INITIAL OXIDANT ADDITION

A. DISCHARGE MONITORING PROGRAM

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

1. Location map showing injection points used for sodium permanganate solution.

2. Written and tabular summary defining depth of injection points, quantity and concentration sodium permanganate solution injected at each injection point, and total amount of sodium permanganate solution 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 MW-1, MW-2, MW-3, MW-6, MW-7S, MW-8, MW-11, MW-12S, MW-16, and MW-17 (Figure 1). The Discharger shall conduct a baseline sampling prior to the proposed injection, followed by a monitoring frequency specified in the schedule below from all 10 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
Manganese	mg/L	grab	Baseline and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Baseline and quarterly after injection
1,4-Dioxane	µg/L	grab	Baseline and quarterly after injection

All groundwater monitoring reports must include, at a 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. PHASE II: HYDRAULIC FLUSHING

A. DISCHARGE MONITORING PROGRAM

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

1. Location map showing injection points used for re-injection of treated groundwater.

2. Written and tabular summary defining depth of discharge points, quantity of treated groundwater re-injected at each injection point per day, and a summary describing the days on which the system is in operations.

3. The Discharger shall conduct a monitoring program on treated groundwater effluent before re-injecting it to the aquifer. Treated groundwater samples shall be collected for the following chemical analyses:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total Dissolved Solids	mg/L	grab	Monthly
Sulfate	mg/L	grab	Monthly
Chloride	mg/L	grab	Monthly
Boron	mg/L	grab	Monthly
Nitrate	mg/L	grab	Monthly
Fluoride	mg/L	grab	Monthly
Manganese	mg/L	grab	Monthly
Volatile Organic Compounds	µg/L	grab	Monthly
1,4-Dioxane	µg/L	grab	Monthly

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 MW-1, MW-2, MW-3, MW-6, MW-7S, MW-8, MW-9, MW-10, MW-11, MW-12S, MW-16, and MW-17 (Figure 1). 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
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
Fluoride	mg/L	grab	Baseline and quarterly after injection

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Manganese	mg/L	grab	Baseline and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Baseline and quarterly after injection
1,4-Dioxane	µg/L	grab	Baseline and quarterly after injection

All groundwater monitoring reports must include, at a 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. PHASE III: POST-HYDRAULIC FLUSHING OXIDANT ADDITION

A. DISCHARGE MONITORING PROGRAM

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

1. Location map showing injection points used for sodium permanganate solution.

2. Written and tabular summary defining depth of injection points, quantity and concentration sodium permanganate solution injected at each injection point, and total amount of sodium permanganate solution 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 MW-2, MW-3, MW-6, MW-7S, MW-12S, and MW-17 in the central area (Figure 1). The Discharger shall conduct a baseline sampling prior to the proposed injection, followed by a monitoring frequency specified in the schedule below from all six 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
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

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Manganese	mg/L	grab	Baseline and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Baseline and quarterly after injection
1,4-Dioxane	µg/L	grab	Baseline and quarterly after injection

All groundwater monitoring reports must include, at a 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.

V. 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.

VI. 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)"

VII. PUBLIC DOCUMENTS

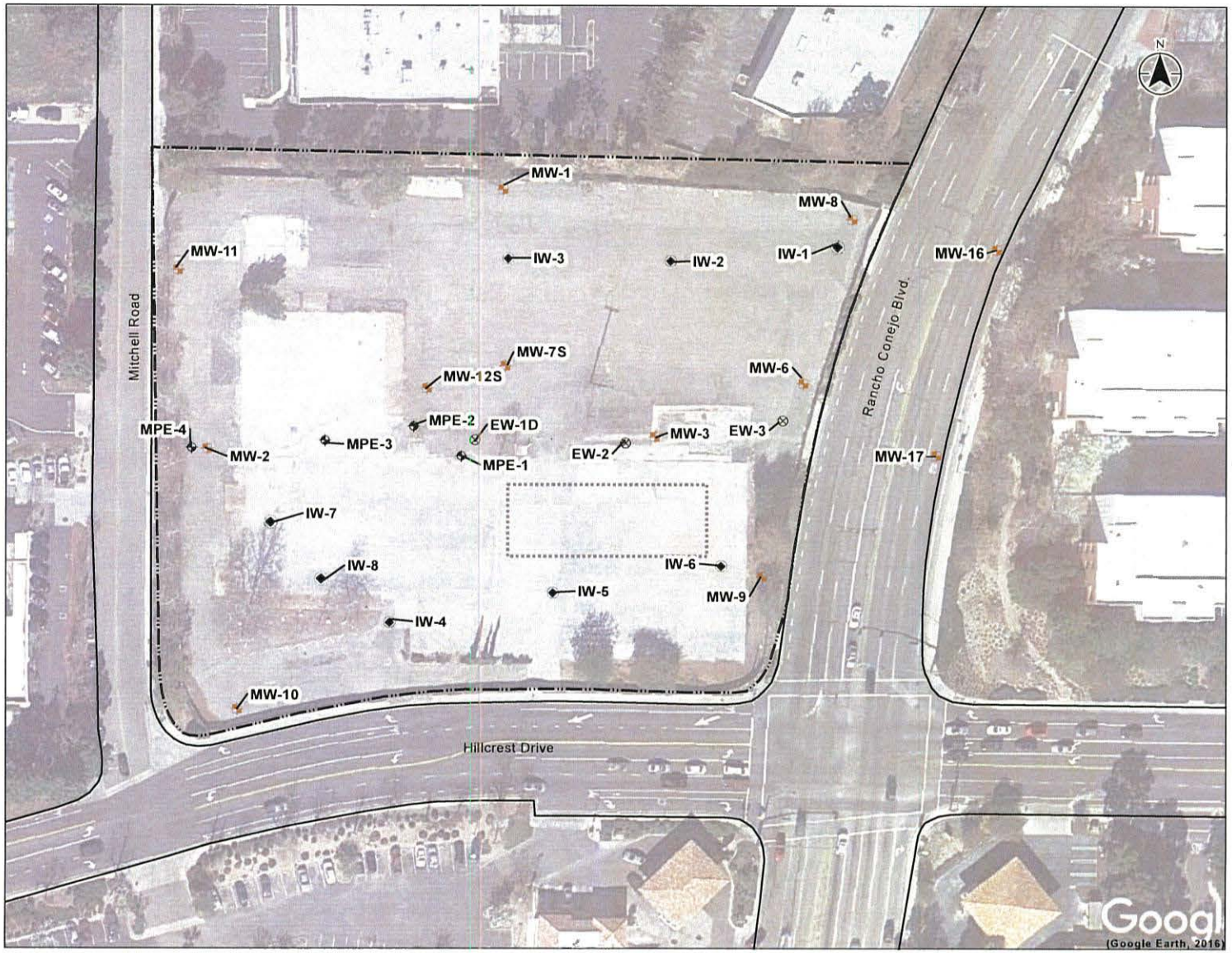
All records and reports submitted in compliance with Regional Water Board Order No. R4-2014-0187 and Monitoring and Reporting Program No. CI-10350 are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger will be treated as confidential.

VIII. 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 WDR100039709.

Ordered by:  Date: October 25, 2019

Renee Purdy
Executive Officer



Stantec

LEGEND

- Site Boundary
- Remediation System Equipment Pad Road
- Lines
- Shallow Groundwater Zone Monitoring Well
- Groundwater Extraction Well (EW)
- Groundwater Injection Well (IW)
- Multi-Phase Extraction Well (MPE)

0 50 100 Feet
1:840 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. MPE-4 will be used as an injection well.
3. Location of IW-7 and IW-8 are approximate and will be surveyed after installation.

Project Location
652 MITCHELL RD, NEWBURY PARK, CA

Client/Project
FORMER SEMTECH FACILITY

Figure No.
1

Title
EXTRACTION, REINJECTION, AND WDR COMPLIANCE MONITORING WELL LOCATIONS