



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

June 12, 2017

Mr. Benny DeHghi
Honeywell International, Inc
2525 West 190th Street
Torrance, California 90504

Certified Mail
Return Receipt Required
Claim No. 7014 2120 0004 7561 8372

REVISED MONITORING AND REPORTING PROGRAM NO. CI-9355 – FORMER BENDIX FACILITY, 11600 SHERMAN WAY, NORTH HOLLYWOOD, CALIFORNIA (FILE NO. 15-157, ORDER NO. R4-2014-0187, SERIES NO. 050, CI-9355, GLOBAL ID. WDR100001703)

Dear Mr. DeHghi:

On January 15, 2016, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) enrolled you under general Waste Discharge Requirements (General WDRs Order No. R4-2014-0187) with a Monitoring and Reporting Program (MRP) No. CI-9355 for injection of treated groundwater and calcium polysulfide for groundwater remediation of volatile organic compounds and hexavalent chromium. The February 2017 groundwater monitoring results indicated that trichloroethylene, hexavalent chromium, and 1,4-dioxane were detected at concentrations up to 1,200 micrograms per liter ($\mu\text{g/L}$), 270 $\mu\text{g/L}$, and 350 $\mu\text{g/L}$ respectively.

On behalf of Honeywell International, Inc., MWH Americas, Inc. submitted the *On-Site Hexavalent Chromium South Area In-Situ Reduction Groundwater Treatment Work Plan (Work Plan)*, dated October 12, 2016 for injection of calcium polysulfide to treat remaining hexavalent chromium in groundwater in the south portion of the subject site. On December 16, 2016, Regional Board staff approved the Work Plan.

It is estimated that 1.8 million gallons of 1.5% calcium polysulfide solution and 3.6 million gallons of chase water will be injected into three injection wells (EW-3, EW-4, and GW-35) at depths from approximately 220 to 330 feet below ground surface. The injection activities are expected to take approximately six months.

The proposed discharge shall not cause the mineral constituents of the receiving groundwater at the compliance point, downgradient outside the application area, in excess of applicable limits (area encompassing Rinaldi Toluca-Tujunga-Erwin-North Hollywood-Whitnall-Los Angeles / Verdugo-Crystal Springs-Headworks-Glendale / Burbank Well Fields of the San Fernando Valley Groundwater Basin) given in Attachment B of General WDRs Order No. R4-2014-0187. The groundwater quality objectives are 600 milligrams per liter (mg/L) for total dissolved solids, 250 mg/L for sulfate, 100 mg/L for chloride, and 1.5 mg/L for boron.

The revised MRP, which incorporates additional injection of calcium polysulfide, 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 WDR100001703. 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,


Samuel Unger, P.E.
Executive Officer

Enclosure: Revised Monitoring and Reporting Program No. CI-9355 dated June 12, 2017

cc: Ms. Linda Tuley, MWH, now part of Stantec

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

REVISED MONITORING AND REPORTING PROGRAM NO. CI-9355
FOR
FORMER BENDIX FACILITY
11600 SHERMAN WAY, NORTH HOLLYWOOD, CALIFORNIA

ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2014-0187 (SERIES NO. 050)
FILE NO. 15-157

I. MONITORING AND REPORTING REQUIREMENTS

- A. Honeywell International, Inc. (hereinafter Discharger) shall implement this Monitoring and Reporting Program (MRP) on the effective date (June 12, 2017) under Regional Board Order No. R4-2014-0187. The next monitoring report shall be received at the Regional Board by **July 30, 2017**. 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. ON-SITE CALCIUM POLYSULFIDE 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 the calcium polysulfide solution.
2. Written and tabular summary defining depth of injection points, quantity and concentration of the calcium polysulfide solution injected at each injection point, and total amount of the calcium polysulfide 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 GW-1, GW-3, GW-7, GW-15, GW-20, GW-22, GW-31, and GW-32 (Figure 1). The Discharger shall conduct a baseline sampling prior to the proposed injection, followed by specified schedules from all eight monitoring wells for the following groundwater parameters:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Dissolved Oxygen	mg/L	grab	Baseline, monthly during the injection period, and quarterly after injection
Oxidation-Reduction Potential	millivolts	grab	Baseline, monthly during the injection period, and quarterly after injection
pH	pH units	grab	Baseline, monthly during the injection period, and quarterly after injection
Specific Conductivity	mS/cm	grab	Baseline, monthly during the injection period, and quarterly after injection
Temperature	°C	grab	Baseline, monthly during the injection period, and quarterly after injection
Turbidity	NTU	grab	Baseline, monthly during the injection period, and quarterly after injection
Total Organic Carbon	mg/L	grab	Baseline, monthly during the injection period, and quarterly after injection
Total Dissolved Solids	mg/L	grab	Baseline, monthly during the injection period, and quarterly after injection
Sulfate	mg/L	grab	Baseline, monthly during the injection period, and quarterly after injection
Chloride	mg/L	grab	Baseline, monthly during the injection period, and quarterly after injection

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Boron	mg/L	grab	Baseline, monthly during the injection period, and quarterly after injection
Nitrate and Nitrite	mg/L	grab	Baseline, monthly during the injection period, and quarterly after injection
Total Chromium and Hexavalent Chromium	µg/L	grab	Baseline, monthly during the injection period, and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Baseline, monthly during the injection period, and quarterly after injection
1,4-Dioxane	µg/L	grab	Baseline, monthly during the injection period, 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. OFF-SITE CALCIUM POLYSULFIDE 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 the calcium polysulfide solution.
2. Written and tabular summary defining depth of injection points, quantity and concentration of the calcium polysulfide solution injected at each injection point, and total amount of the calcium polysulfide solution injected at the Site.
3. Visual inspection at each injection point shall be conducted and recorded during the injection.

B. Groundwater Monitoring Program

The injection activities started in March 2017. A groundwater monitoring program shall be implemented to evaluate impacts associated with the injection activity. Groundwater samples shall be collected from monitoring wells GW-12B, GW-17, GW-34, GW-36, and NHE-2 (Figure 2). The Discharger shall conduct sampling events with 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	Monthly during the injection period, and quarterly after injection
Oxidation-Reduction Potential	millivolts	grab	Monthly during the injection period, and quarterly after injection
pH	pH units	grab	Monthly during the injection period, and quarterly after injection
Specific Conductivity	mS/cm	grab	Monthly during the injection period, and quarterly after injection
Temperature	°C	grab	Monthly during the injection period, and quarterly after injection
Turbidity	NTU	grab	Monthly during the injection period, and quarterly after injection
Total Organic Carbon	mg/L	grab	Monthly during the injection period, and quarterly after injection
Total Dissolved Solids	mg/L	grab	Monthly during the injection period, and quarterly after injection
Sulfate	mg/L	grab	Monthly during the injection period, and quarterly after injection
Chloride	mg/L	grab	Monthly during the injection period, and quarterly after injection

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Boron	mg/L	grab	Monthly during the injection period, and quarterly after injection
Nitrate and Nitrite	mg/L	grab	Monthly during the injection period, and quarterly after injection
Total Chromium and Hexavalent Chromium	µg/L	grab	Monthly during the injection period, and quarterly after injection
Volatile Organic Compounds	µg/L	grab	Monthly during the injection period, and quarterly after injection
1,4-Dioxane	µg/L	grab	Monthly during the injection period, 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. RE-INJECTION OF TREATED GROUNDWATER

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 and 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 an effluent monitoring on the treated groundwater prior to subsurface discharge. 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
Hexavalent Chromium	µg/L	grab	Weekly for 6 months and monthly thereafter
Total Chromium	µg/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 GW-10, GW-11, GW-30, and GW-34 (Figure 2). The Discharger shall conduct quarterly sampling from all four monitoring wells for the following groundwater parameters:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Dissolved Oxygen	mg/L	grab	Quarterly
Oxidation-Reduction Potential	millivolts	grab	Quarterly
pH	pH units	grab	Quarterly
Specific Conductivity	mS/cm	grab	Quarterly
Temperature	°C	grab	Quarterly
Turbidity	NTU	grab	Quarterly
Total Organic Carbon	mg/L	grab	Quarterly
Total Dissolved Solids	mg/L	grab	Quarterly
Sulfate	mg/L	grab	Quarterly
Chloride	mg/L	grab	Quarterly
Boron	mg/L	grab	Quarterly
Nitrate and Nitrite	mg/L	grab	Quarterly
Total Chromium and Hexavalent Chromium	µg/L	grab	Quarterly
Volatile Organic Compounds	µg/L	grab	Quarterly
1,4-Dioxane	µg/L	grab	Quarterly

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)"

Former Bendix Facility
WDR Order No. R4-2014-0187
Revised Monitoring and Reporting Program No. CI-9355

VII. PUBLIC DOCUMENTS

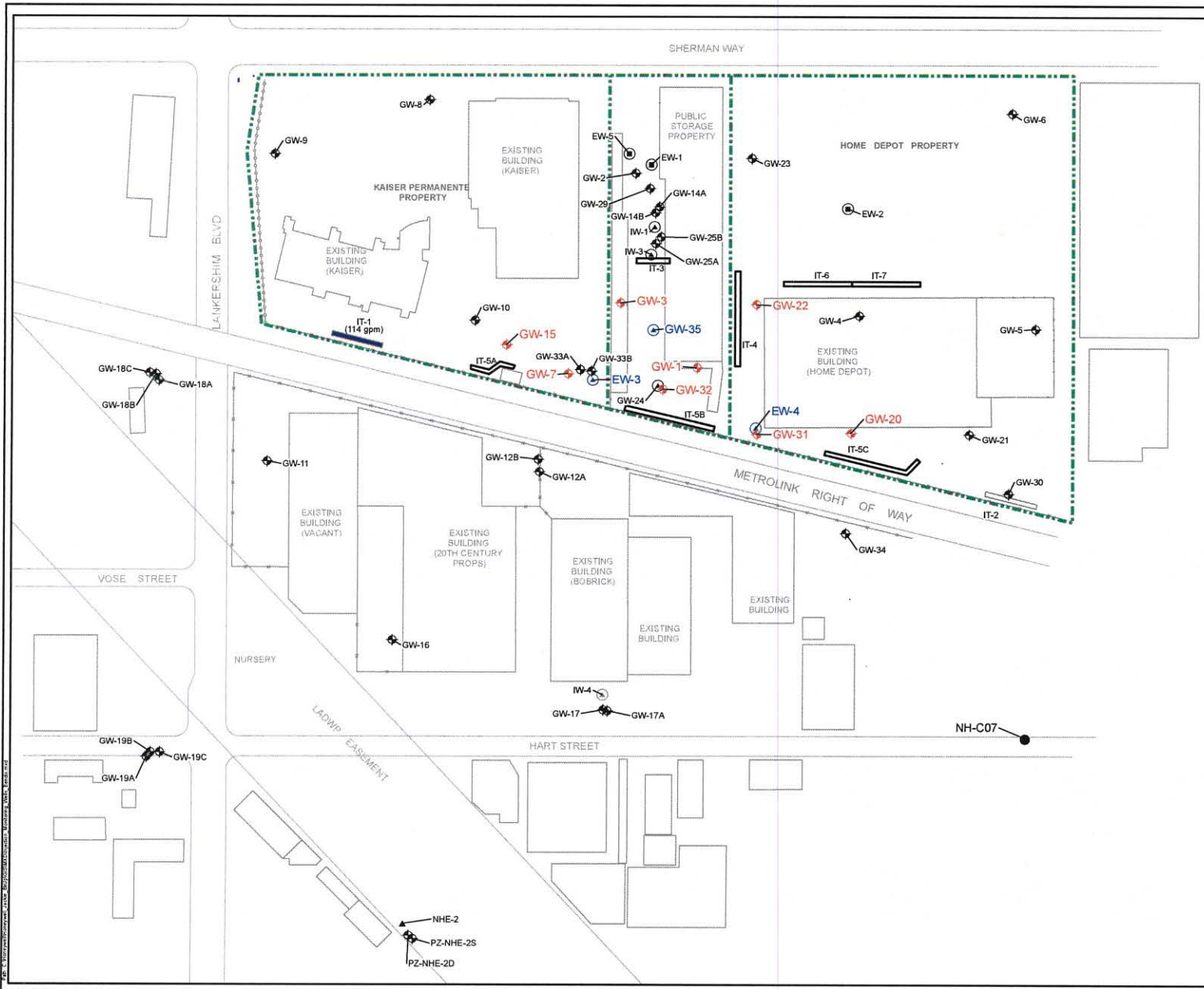
All records and reports submitted in compliance with Regional Board Order No. R4-2014-0187 and Monitoring and Reporting Program No. CI-9355 are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles 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 WDR100001703.

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

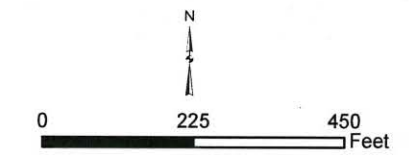
Date: June 12, 2017



Legend

- ⊙ Groundwater Extraction Well
- ⊕ WDR Monitoring Well for On-Site Direct Injection
- ⊕ Groundwater Monitoring Well
- ⊕ Injection Well for On-Site Direct Injection
- ⊙ Groundwater Injection Well
- ⊕ Groundwater Injection Well (inactive during reporting phase)
- ▲ North Hollywood Extraction Well
- North Hollywood Monitoring Well
- Site Boundary
- Active Injection Trench (Treated Water)
- ▭ Inactive Injection Trench
- ▭ Existing Structures

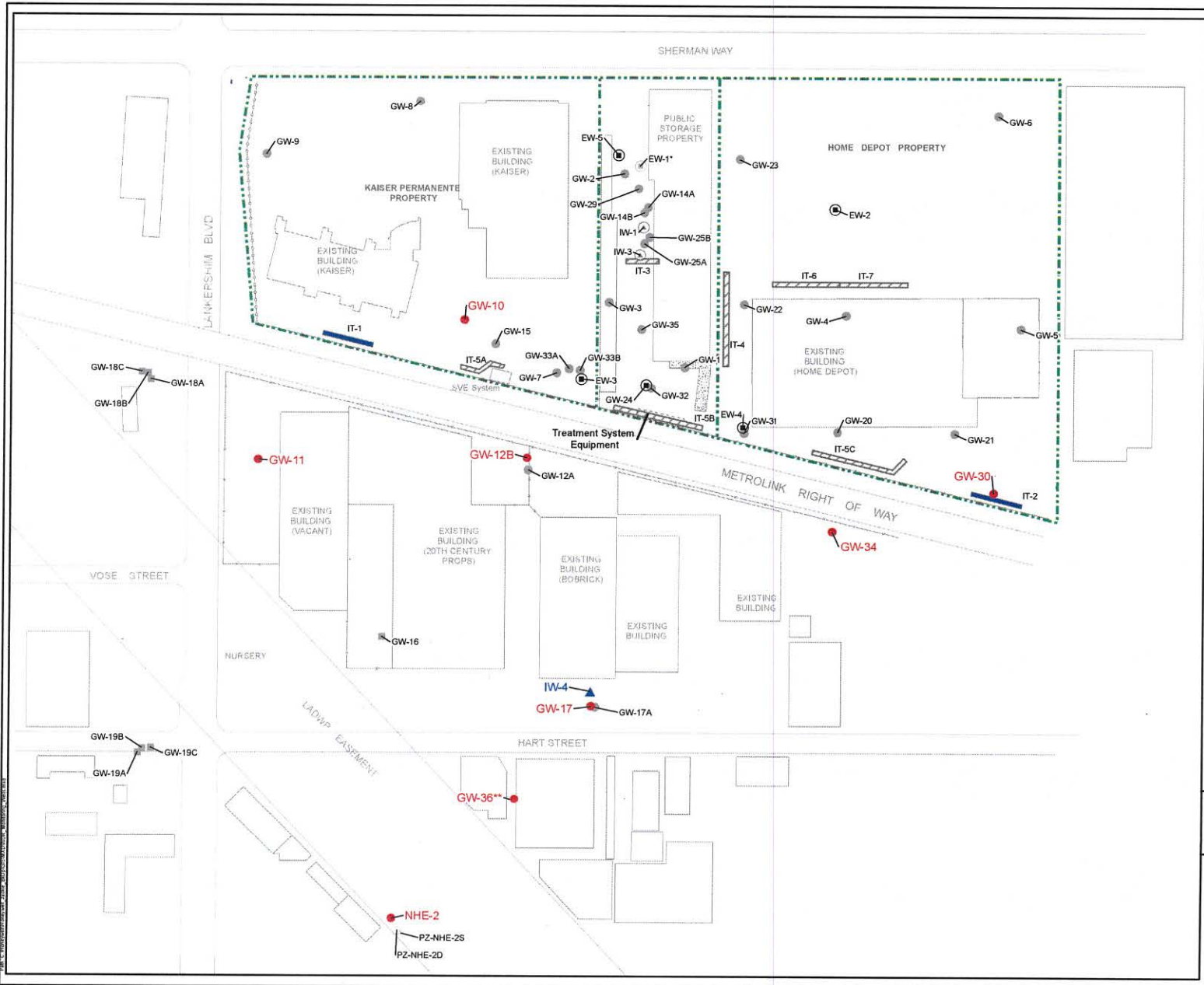
Notes:
 1. IT = Injection Trench
 2. EW = Extraction Well
 3. IW = Injection Wells



FORMER BENDIX FACILITY
 NORTH HOLLYWOOD, CALIFORNIA

ON-SITE DIRECT INJECTION
 WDR MONITORING
 WELL LOCATIONS

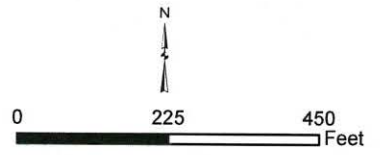
FIGURE 1



Legend

- Inactive Extraction Well Location
- ⊙ Extraction Well Location
- Existing Groundwater Monitoring Well
- WDR Monitoring Well
- Multi-Port Groundwater Monitoring Well
- Inactive Injection Well Location (Reductant Solution Delivery)
- ▲ Injection Well (Reductant Solution Delivery/Treatment Water Discharge)
- Piezometer for North Hollywood Extraction Well
- Site Boundary
- ▬ Injection Trench (Treated Water Discharge Location)
- ▬ Inactive Injection Trench (Reductant Solution Delivery)
- ▬ Existing Structures

- Notes:**
1. IT = Injection Trench
 2. EW = Extraction Well
 3. IW = Injection Wells
- * Extraction Well EW-1 is Permanently Offline
 ** Proposed, Not Yet Installed



**FORMER BENDIX FACILITY
 NORTH HOLLYWOOD, CALIFORNIA
 OFF-SITE INJECTION AND REINJECTION
 OF TREATED WATER WDR
 MONITORING WELL LOCATIONS**

FIGURE 2