



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

PHILIP D. MURPHY  
Governor

CATHERINE R. McCABE  
Commissioner

SHEILA Y. OLIVER  
Lt. Governor

Site Remediation and Waste Management Program  
Remediation Review Element  
Bureau of Remedial Action Permitting  
401 E. State Street  
P.O. Box 420  
Mail Code 401-05S  
Trenton, NJ 08625-0420  
Phone: (609) 984-2990

August 14, 2018

Maria Kaouris  
Remediation Manager  
Honeywell International, Inc.  
115 Tabor Road  
Morris Plains, NJ 07950

RE: Ground Water Remedial Action Permit  
Site: Hudson County Chromate 153  
A/K/A: Study Area 5 Site 153/ Former Morris Canal  
Address: 425/455 Route 440  
City: Jersey City  
County: Hudson  
SRP Program Interest #: G000008767  
Ground Water Remedial Action Permit #: RAP180001

Dear Ms. Kaouris:

Enclosed is a Ground Water Remedial Action Permit issued pursuant to the Site Remediation Reform Act, 58:10C-1 et seq. and the Administrative Requirements for the Remediation of Contaminated Sites at N.J.A.C. 7:26C-1 et seq. This permit becomes effective on August 21, 2018. Please note the referenced permit and program interest numbers and refer to them when corresponding with the Department.

The enclosed permit requires the permittee to conduct monitoring, maintenance and evaluation for compliance and effectiveness of the remedial action and its associated institutional control. The permit establishes requirements necessary for demonstrating that the remedial action and control continue to be protective of public health, safety and the environment.

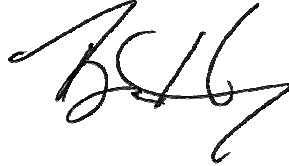
Please be aware that there are annual fees associated with this permit in accordance with N.J.A.C. 7:26C-4.6. These annual permit fees will be handled by invoicing the fee billing contact we have on record:

Maria Kaouris  
Remediation Manager  
Honeywell International, Inc.  
115 Tabor Road  
Morris Plains, NJ 07950  
Phone: (973) 455-3302  
Email: maria.kaouris@honeywell.com

Any changes to this contact should be brought to the Department's attention. Changes to fee billing contacts are updates and are not considered modifications to the permit.

The Department looks forward to future continued cooperation in working together to provide a healthy environment for the citizens of New Jersey and to protect its resources. Going forward, questions or comments regarding this permit should be addressed to the Bureau of Remedial Action Permitting at 609-984-2990, attention Robert Soboleski, Bureau Chief.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. S. Hose', written in a cursive style.

William S. Hose, Assistant Director  
Remediation Review Element

Enclosure

c: Municipal Clerk, Jersey City  
rbyrne@jcnj.org

Jersey City Division of Health  
smithv@jcnj.org

Hudson County Register  
lsenerchia@hcnj.us

Hudson County Regional Health Commission  
cnawrocki@hudsonregionalhealth.org

Dennis Nagg  
Dennis.nagg@woodplc.com

**New Jersey Department of Environmental Protection**



**Bureau of Remedial Action Permitting**  
401 East State Street  
P.O. Box 420  
Mail Code 401-05S  
Trenton, NJ 08625-0420  
Phone #: 609-984-2990

**GROUND WATER REMEDIAL ACTION PERMIT**  
**Monitored Natural Attenuation**

The New Jersey Department of Environmental Protection hereby grants you a Remedial Action Permit pursuant to N.J.S.A. 58:10C-1 et seq. and N.J.A.C. 7:26C-1 et seq. for the facility/activity named in this document. This permit is the regulatory mechanism used by the Department to help ensure your remedial action will be protective of human health and the environment.

This permit establishes the monitoring, maintenance, and evaluation requirements for determining the effectiveness of an on-going ground water remediation. The monitoring program for this site shall be consistent with the attached Ground Water Monitoring Plan. A Classification Exception Area/Well Restriction Area (CEA/WRA) has been established for the site and is consistent with the attached CEA/WRA Fact Sheet.

**Site:** Hudson County Chromate 153  
**A/K/A:** Study Area 5 Site 153/ Former Morris Canal

<u>Facility Address:</u>  <b>425/445 Route 440</b> <b>Jersey City, NJ 07300</b> <b>Hudson County</b> <b>Block: 21902 Lot: 1</b>	<u>Program Interest#:</u> <b>G000008767</b>  <u>Permit#:</u> <b>RAP180001</b>
<u>Person Responsible for Conducting the Remediation - Co-Permittee:</u>  <b>Maria Kaouris</b> <b>Remediation Manager</b> <b>HONEYWELL INTERNATIONAL INC</b> <b>115 Tabor Road</b> <b>Morris Plains, NJ 07950</b> <b>Phone: (973) 455-3302</b> <b>Email: maria.kaouris@honeywell.com</b>	
<u>Property Owner - Co-Permittee:</u>  <b>Same as above</b>	

**Issuance Date:**  
**08/14/2018**

**Effective Date:**  
**08/21/2018**

## I. Authority

The Department is issuing this permit in accordance with N.J.S.A. 58:10C-1 et seq. and N.J.A.C. 7:26C-1et seq.

## II. Permit Requirements

### A. GROUND WATER MONITORING REPORTING AND REQUIREMENTS

#### 1. Reporting Requirements

a. The permittee shall submit a monitoring report in accordance with the schedule in the attached Ground Water Monitoring Plan. Submit the monitoring report with the Remedial Action Protectiveness/Biennial Certification Form biennially from the effective date of this permit. [N.J.A.C. 7:26C- 7.9(a)]

b. The permittee shall ensure compliance with the requirements of the Ground Water Remedial Action Permit. This includes but is not limited to site inspections, ground water sampling, biennial submission of a Ground Water Remedial Action Protectiveness/Biennial Certification Form and Report, responding to any activities involving the institutional and/or engineering controls at the site, and responding to any public inquiries regarding the current status of the site. [N.J.A.C. 7:26C- 2.3(a and b)]

#### 2. Sampling and Analysis

a. Sampling is to occur according to the applicable method(s) obtained from the Field Sampling Procedures Manual (the sampling method is noted in the site-specific Quality Assurance Performance Plan). [N.J.A.C. 7:26E- 2.1]

b. Samples are to be analyzed for the parameters listed in the attached Ground Water Monitoring Plan using the method or most recent revision of the method noted in the site-specific Quality Assurance Performance Plan. The method chosen must have adequate sensitivity to meet all applicable remediation standards/screening levels. The permittee shall collect and analyze samples pursuant to the attached Ground Water Monitoring Plan. [N.J.A.C. 7:26E- 2.1]

### B. REMEDIAL ACTION PROTECTIVENESS/BIENNIAL CERTIFICATION FORM

#### 1. Reporting Requirements

a. The permittee shall prepare and submit to the Department a Remedial Action Protectiveness/Biennial Certification Form every two years following the anniversary of the date of the effective date of this permit. The certification shall be submitted on the required form provided by the Department. Submit a Remedial Action Protectiveness/Biennial Certification Form biennially from the effective date of this permit. [N.J.A.C. 7:26C- 7.7(a)1]

#### 2. Evaluation Requirements

a. The permittee shall certify, as required in this permit, that the remedial action continues to be protective of the public health and safety and the environment. [N.J.A.C. 7:26C- 1.5(a)2]

- b. The permittee shall conduct the remediation in accordance with all applicable statutes, rules, and guidance. [N.J.A.C. 7:26C- 1.2(a)]
- c. The Remedial Action Protectiveness/Biennial Certification Form shall include a comparison of the laws, Ground Water Quality Standards, and other regulations applicable at the time the Department established the ground water classification exception area, with any relevant subsequently promulgated or modified laws or regulations to determine whether the classification exception area remains protective. The results shall be provided in table format, comparing of applicable laws, regulations, and standards. [N.J.A.C. 7:26C- 7.9(b)2]
- d. The Remedial Action Protectiveness/Biennial Certification Form shall include an evaluation of whether there are any planned changes within a 25-year water use planning horizon for the aquifer(s) in which the ground water classification exception area is located since the Department established the ground water classification exception area or the last completed biennial review, whichever is more recent. [N.J.A.C. 7:26C- 7.9(b)3]
- e. The Remedial Action Protectiveness/Biennial Certification Form shall include an evaluation of whether there have been any actual changes in the ground water use since the Department established the ground water classification exception area or the last completed biennial review. The results of the evaluation of the changes in ground water use include a scaled map identifying all wells and/or waterlines found within one mile from any part of the boundaries of the ground water classification exception area. [N.J.A.C. 7:26C- 7.9(b)4]
- f. The permittee shall maintain a maintenance and evaluation log for each monitoring well used to establish the ground water classification exception area. The log shall include a description of any well damage or vandalism identified or repairs completed. If any of the damage resulted in the decommissioning of a well, provide a copy of the Well Abandonment Report. [N.J.A.C. 7:26C- 7.9(b)5]
- g. The Remedial Action Protectiveness/Biennial Certification Form shall include an evaluation of any land use disturbance that may intercept the water table within the area of the ground water classification exception area that could result in a contaminated discharge to surface water. If any such disturbances are identified, sample the ground water/surface water down-gradient and proximate to the land use disturbance to determine whether the ground water meets the more stringent of either: (1) The New Jersey Surface Water Quality Standards, N.J.A.C. 7:9B; or (2) The Federal Surface Water Quality Criteria, 40 CFR Part 131. [N.J.A.C. 7:26C- 7.9(b)6]
- h. The Remedial Action Protectiveness/Biennial Certification Form shall include an evaluation of the fate and transport of the ground water contamination plume, including any additional remediation conducted, modification of the remedial action, or proposed revision of the ground water classification exception area, and apply for a modification of the Ground Water Remedial Action Permit to ensure that the remedial action remains protective of the public health and safety and the environment. [N.J.A.C. 7:26C- 7.9(b)7i and (d)2]
- i. Within 180 calendar days after the anticipated expiration date of the ground water classification exception area, the permittee shall collect at least two rounds of ground water samples such that the time between sampling events accounts for seasonal fluctuations in the ground water table and the number of ground water samples collected is representative of the entire horizontal and vertical extent of the ground water classification exception area. If ground water samples indicate that contaminant concentrations have decreased to or below the applicable ground water quality standards throughout the ground water classification ex-

ception area, then the permittee may request that the Department remove the ground water classification exception area pursuant to N.J.A.C. 7:26C-7.3(g) and terminate the Ground Water Remedial Action Permit pursuant to N.J.A.C. 7:26C-7.13. If ground water samples indicate that contaminant concentrations have not decreased to or below the applicable ground water quality standards throughout the ground water classification exception area, then the permittee shall modify the remedial action by re-modeling the fate and transport of the ground water contaminant plume, proposing a revision to the ground water classification exception area, and applying for a modification of the Ground Water Remedial Action Permit pursuant to N.J.A.C. 7:26C-7.12. [N.J.A.C. 7:26C- 7.9(f)]

#### C. FINANCIAL ASSURANCE REQUIREMENTS

##### 1. No Engineering Control

- a. Financial Assurance is not required since an engineering control is not in place for this site. [N.J.A.C. 7:26C- 7.10]

#### D. FEES

1. For each year hereafter on the anniversary of the effective date of this permit, the Department shall invoice the permittees the amount of the annual Remedial Action Permit Fee. [N.J.A.C. 7:26C- 4.6]

#### E. PERMIT TRANSFERS

1. The permittee shall, at least 60 days prior to the sale or transfer of the property, or transfer of the operation of the property, or termination of a lease, submit a Remedial Action Permit Transfer/Change of Ownership Application and pay the permit transfer fee to the Department. [N.J.A.C. 7:26C- 7.11(b)]

#### F. PERMIT MODIFICATIONS

##### 1. Ground Water Permit Modifications

- a. The permittee shall apply to have the Department modify a Remedial Action Permit within 30 days after a statement that the permittee has completed a protectiveness evaluation required in its permit and has determined that the remedial action is not adequately protective of the public health and safety and of the environment, and stating the reasons for coming to this conclusion. [N.J.A.C. 7:26C- 7.12(b)1]
- b. The permittee shall apply to have the Department modify a Remedial Action Permit within 30 days after the size, duration, or contaminants of a classification exception area need to be modified. [N.J.A.C. 7:26C- 7.12(b)2]
- c. The permittee shall apply to have the Department modify a Remedial Action Permit within 30 days after the person responsible for conducting the remediation modifies the remedial action. [N.J.A.C. 7:26C- 7.12(b)4]
- d. The permittee shall apply to have the Department modify a Remedial Action Permit within 30 days after the permittee changes its address. [N.J.A.C. 7:26C- 7.12(b)6]

## G. PERMIT TERMINATIONS

1. A request for a permit termination can be filed by submitting a Remedial Action Permit Application to terminate the permit to the Department when the remedial action meets all applicable remediation standards without the need for the Remedial Action Permit and the remedial action is protective of the public health and safety and of the environment without the presence of the Remedial Action Permit. [N.J.A.C. 7:26C- 7.13]

## H. FORM SUBMITTAL

1. Any forms, applications or documents required by this chapter that can be submitted in an electronic format shall be submitted electronically 90 days after the date that the Department informs the public in the New Jersey Register that the relevant electronic application is functional. [N.J.A.C. 7:26C- 1.6(c)]
2. All submissions required pursuant to this permit shall be made on forms approved and available from the Department. These forms and instructions for completing these forms can be found at <http://www.nj.gov/dep/srp/srra/forms>. [N.J.A.C. 7:26C- 1.6]

## III. Permit Schedule

<b>Permit Effective Date: 08/21/2018</b>	
<b>Submission Requirement</b>	<b>Due Date</b>
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2020
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2022
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2024
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2026
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2028
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2030
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2032
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2034
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2036
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2038
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2040
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2042
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2044
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2046
Submit a Remedial Action Protectiveness/Biennial Certification Form	08/21/2048

Note: Remedial Action Protectiveness/Biennial Certification Forms are required to be submitted according to the schedule, and shall continue to be submitted until the Permit is terminated or modified.

Your Ground Water Remedial Action Permit under Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C-1 et seq. has been approved by the New Jersey Department of Environmental Protection.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. S. Hose', written in a cursive style.

**Date:** August 14, 2018

William S. Hose, Assistant Director  
Remediation Review Element

**IV. Attachments:**

- A. CEA/WRA Fact Sheet
  - B. Ground Water Monitoring Plan
- CEA ID: CEA1455512  
Block: 21902 Lot: 1



## Attachment A

### Classification Exception Area/Well Restriction Area Fact Sheet

**Case Information:**

<b>Preferred Id:</b>	G000008767
<b>RAP Number:</b>	RAP180001
<b>Case Name:</b>	Hudson County Chromate 153 (Former Morris Canal)
<b>Address:</b>	425/445 Route 440 Jersey City
<b>County:</b>	Hudson

**--- Site Location: Refer to Exhibit A ---**

**Block and Lot of the CEA:**

<u>Subject Item</u>	<u>Block</u>	<u>Lot</u>	<u>Municipality</u>	<u>Off-Site</u>
CEA101455512	21902	1	Jersey City	No

**Facility Contacts:**

<b>Co-Permittees: Person Responsible for Conducting the Remediation:</b>	Maria Kaouris Remediation Manager Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950 Phone: (973) 455-3302 Email: <a href="mailto:maria.kaouris@honeywell.com">maria.kaouris@honeywell.com</a>
<b>Property Owner:</b>	Same as above

**CEA Information:**

<u>Subject Item</u>	<u>Description</u>
CEA101455512	Chrome plume

<u>Subject Item</u>	<u>Affected Aquifer</u>	<u>Vertical Depth</u>
CEA101455512	Fill	15
CEA101455512	Locketong	50

<u>Subject Item</u>	<u>Classification</u>
CEA101455512	II-A

**Contaminants:**

This CEA/WRA applies only to the contaminants listed in the table below. All constituents standards (N.J.A.C. 7:9C-1.6) apply at the designated boundary.

<b><u>Subject Item</u></b>	<b><u>Contaminant</u></b>	<b><u>Concentration (1)</u></b>	<b><u>GWQS (2)</u></b>
CEA101455512	Chromium	19,100 micrograms per liter	70 micrograms per liter
CEA101455512	Chromium (VI)	16,100 micrograms Per liter	70 micrograms per liter

Note: (1) Maximum concentration detected at the time of CEA establishment  
(2) Ground Water Quality Standards

**--- CEA Boundaries: Refer to Exhibit B ---**

**Projected Term of CEA:**

<b><u>Subject Item</u></b>	<b><u>Date Established</u></b>
CEA101455512	02/16/2012

<b><u>Subject Item</u></b>	<b><u>Duration in Years</u></b>
CEA101455512	Indeterminate

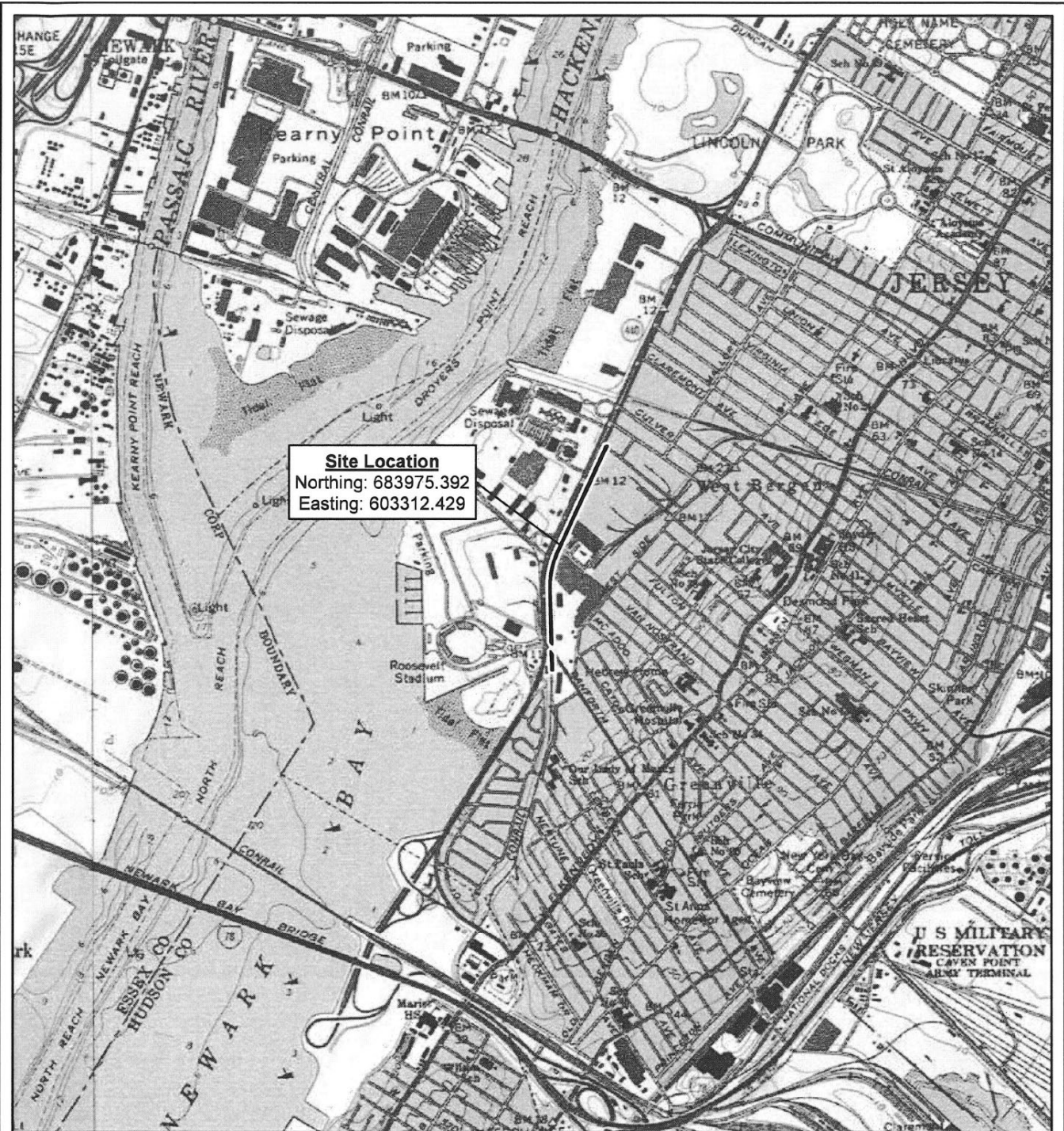
<b><u>Subject Item</u></b>	<b><u>Expected Expiration Date</u></b>
CEA101455512	Indeterminate

**Note:** Since ground water quality data indicates exceedance of contaminants above the Primary Drinking Water Standards, and the designated uses of Class II-A aquifers include potable use, the CEA established for this site is also a Well Restriction Area. The extent of the Well Restriction Area shall coincide with the boundaries of the CEA.

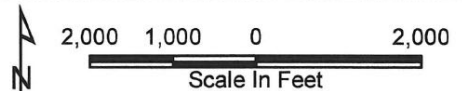
**Well Restrictions set within the boundaries of the CEA**

<b><u>Subject Item</u></b>	<b><u>Restriction</u></b>
CEA101455512	Double Case Wells: With the exception of monitoring wells installed into the first water bearing zone, any proposed well to be installed within the CEA/WRA boundary shall be double cased to an appropriate depth in order to prevent any vertical contaminant migration pathways. This depth is either into a confining layer or 50 feet below the vertical extent of the CEA.
CEA101455512	Evaluate Production Wells: Any proposed high capacity production wells in the immediate vicinity of the CEA/WRA should be pre-evaluated to determine if pumping from these wells would draw a portion of the contaminant plume into the cone of capture of the production wells or alter the configuration of the contaminant plume.
CEA101455512	Sample Potable Wells: Any potable well to be installed within the footprint of the CEA/WRA shall be sampled annually for the parameters of concern. The first sample shall be collected prior to using the well.

# Exhibit A (Site Location Map)



NAD 1983 StatePlane New Jersey FIPS 2900 Feet



### Legend

Site Boundary

Service Layer Credits: Copyright:© 2013  
National Geographic Society, i-cubed

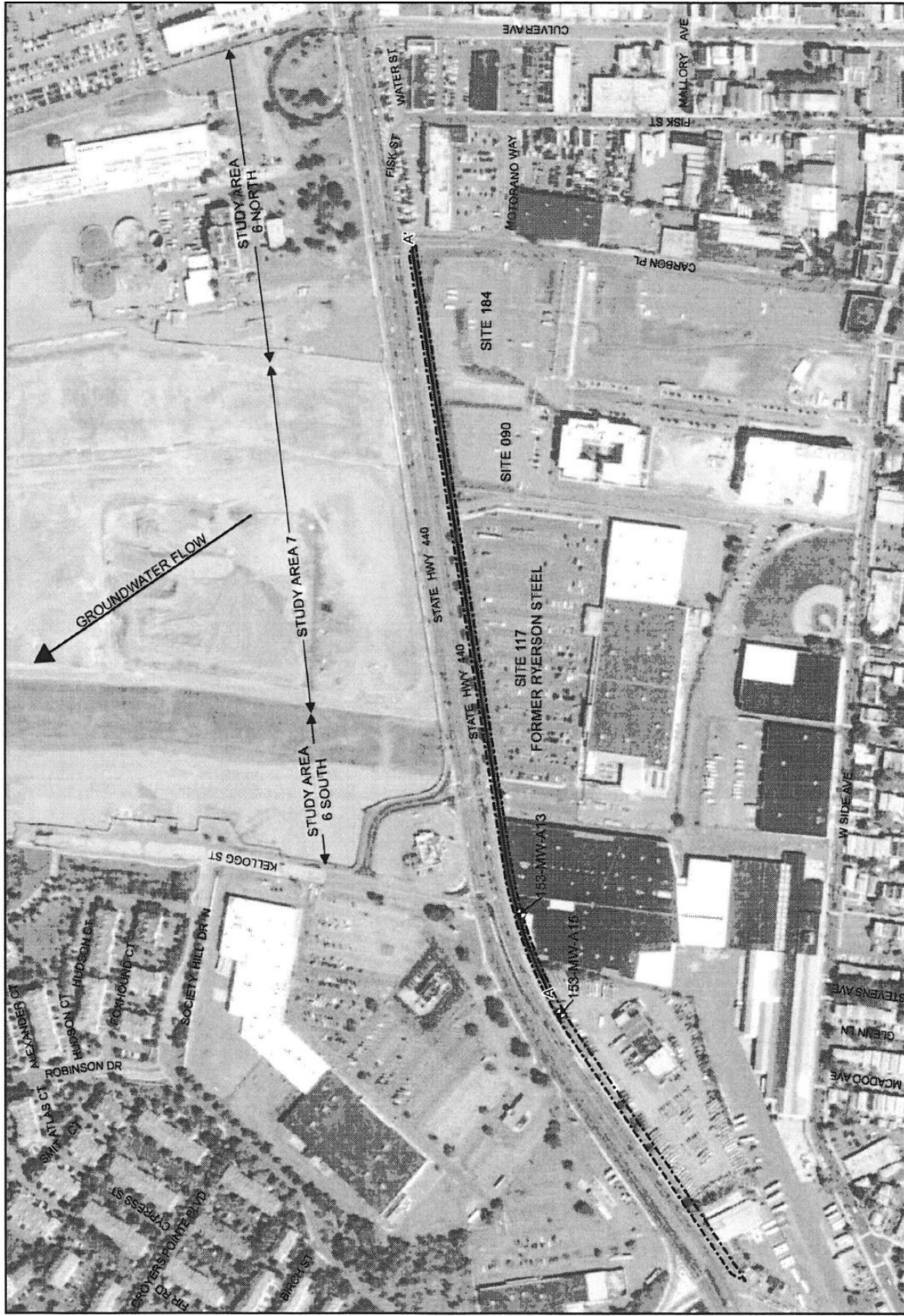


**ENVIRONMENT & INFRASTRUCTURE**  
200 AMERICAN METRO BLVD, SUITE 113  
HAMILTON, NEW JERSEY 08619

**Figure 1**  
Site Location Map  
Site 153 Former Morris Canal  
Jersey City, New Jersey

PROJ. NO.	3480130371	12/1/2014	REV.
DWN. BY.	WSL	CHKD BY.	AG

# Exhibit B (CEA Boundaries)



**wood.**  
 ENVIRONMENT & INFRASTRUCTURE  
 SOLUTIONS, INC.  
 200 AMERICAN METRO BLVD, SUITE 113  
 HAMILTON, NEW JERSEY 08619

PROJECT NUMBER: 3482170571	CHECKED/DATE: JJH 07/24/2018			
PREPARED/DATE: WVSL 07/24/2018	CHECKED/DATE: JJH 07/24/2018			
REV. NO.	DATE	STATUS	CHECKED/DATE	APPROVED BY

Attachment B  
Ground Water Monitoring Plan for  
Ground Water Remedial Action Permit

**Case Information:**

<b>Preferred ID:</b>	G000008767
<b>RAP Number:</b>	RAP180001
<b>Case Name:</b>	Hudson County Chromate 153
<b>Address:</b>	Rte 440
<b>City:</b>	Jersey City
<b>County:</b>	Hudson County
<b>Block and Lot of the Site:</b>	Block: 21902 Lot: 1 (main parcel) Block: 26704 Lot: 5 (small parcel)

**Monitoring Schedule:**

Well to be sampled	Type of Well	Easting	Northing	Sampling Schedule	Reporting Schedule	Sampling parameters for each well
153-MW-A13	Plume fringe	603210.9 2	683671.001	Biennially	Biennially	Chromium (Total)
153-MW-A15	Sentinel	603149.2 7	683365.894	Biennially	Biennially	Chromium (Total)
153-MW-A13	Plume fringe	603210.9 2	683671.001	Biennially	Biennially	Chromium (Hexavalent)
153-MW-A15	Sentinel	603149.2 7	683365.894	Biennially	Biennially	Chromium (Hexavalent)
153-MW-A13	Plume fringe	603210.9 2	683671.001	Yearly	Biennially	Depth to Water Table from Top of Inner Well Casing (ft)
153-MW-A15	Sentinel	603149.2 7	683365.894	Yearly	Biennially	Depth to Water Table from Top of Inner Well Casing (ft)