REMEDIAL ACTION WORK PLAN ADDENDUM
FORMER UNIONPORT WORKS SITE – OU-2
BRONX, NEW YORK
CONSENT ORDER NUMBER 0-20180516-519
SITE ID NO. 203109

CONSOLIDATED EDISON CO. OF NEW YORK, INC.
31-01 20th Avenue
Long Island City, NY 11105

Prepared by:

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September 2020

Certification Statement

I, Jason D. Brien, P.E. certify that I am currently a NYS registered professional engineer and that this *OU-2 Remedial Action Work Plan Addendum* was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER *Technical Guidance for Site Investigation and Remediation* (DER-10).

_____ 9/10/2020_____

Jason D. Brien, P.E. Date
NYS PE License No. 084067

REMEDIAL ACTION WORK PLAN ADDENDUM

Former Unionport Gas Works Site
Bronx, New York
Site No. 203109

Prepared for:

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ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
Con Edison	Consolidated Edison of New York, Inc.
DNAPL	dense non-aqueous phase liquid
EM	electro magnetic
GPR	ground penetrating radar
HASP	Health and Safety Plan
IDW	investigation derived waste
MGP	Manufactured Gas Plant
NTU	nephelometric turbidity units
NYC	New York City
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
OU-2	Operable Unit 2
PID	photoionization detector
PVC	polyvinyl chloride
SMP	Site Management Plan
SVOC	semi-volatile organic compound
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
VOC	volatile organic compound

1 INTRODUCTION

This *Remedial Action Work Plan Addendum* (RAWP Addendum) has been prepared to support the implementation of the New York State Department of Environmental Conservation (NYSDEC)-selected remedy for Operable Unit No. 2 (OU-2) of the Consolidated Edison Company of New York, Inc. (Con Edison) former Unionport Gas Works site (the site) located in the Borough of Bronx, New York, New York (Figure 1). The RAWP was prepared pursuant to the requirements of a previous Voluntary Cleanup Agreement (VCA) between Con Edison and the New York State Department of Environmental Conservation (NYSDEC). The site identification number under the VCA was V00553. In 2018 the VCA was replaced by a multi-site Consent Order (Consent Order No. 0-20180516-519), with the former Unionport Gas Works site identified as Site No. 203109.

This RAWP Addendum has been prepared in general accordance with the following documents:

- November 2019 NYSDEC Decision Document (NYSDEC 2019).
- NYSDEC Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10) (NYSDEC 2010b).
- NYSDEC-approved Remedial Action Work Plan (RAWP) (Arcadis 2018).

Activities identified in this RAWP will be performed under the approval and oversight of NYSDEC and the New York State Department of Health (NYSDOH).

1.1 Summary of Selected Remedy

As presented in the Decision Document, the selected remedy for OU-2 consists of the following general components:

- Implementing a remedial design program to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program.
- Installing dense, non-aqueous phase liquid (DNAPL) monitoring/recovery wells along the northern portion of Watson Avenue to monitor for and remove potentially mobile DNAPL from the subsurface (if any).
- Preparing and implementing an Interim SMP that includes the following:
  - An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the institutional and/or engineering controls remain in place and effective.
  - A Monitoring Plan to assess the performance and effectiveness of the remedy.

1.2 Purpose

Based on the limited nature of intrusive activities associated with the remedy components in the Decision Document, the RAWP was intended to address remedial design requirements in accordance with Section

5.3 of DER-10. The purpose of this RAWP Addendum is to present supplemental details regarding the remedial approach for OU-2. Specifically, this RAWP Addendum present the following information:

- DNAPL monitoring/recovery well location and construction details.
- Groundwater monitoring well decommissioning details.
- DNAPL monitoring/recovery approach and schedule.
- OU-2 surveying activities to document the location and elevation of the NAPL monitoring/recovery wells.
- Anticipated schedule for completing the implementation of the activities presented herein, including installing NAPL monitoring/recovery wells, abandoning select existing groundwater monitoring wells, conducting a land survey, conducting routine NAPL monitoring/recovery activities, preparing a summary report following the first year of NAPL monitoring/recovery activities, and developing an Interim SMP.

A detailed description of relevant site background information, including site location and physical setting; site history and operation; and a summary of the geology, hydrogeology, and the nature and extent of environmental impacts is presented in the RAWP.

2 WELL INSTALLATION/DECOMMISSIOING

This section presents a task-by-task summary of activities to be completed to install DNAPL monitoring/recovery wells along the northern portion of the site, monitor and remove DNAPL from the newly installed DNAPL monitoring/recovery wells, and decommission select existing groundwater monitoring wells.

The site Health and Safety Plan (HASP) will be updated to support the specific activities described in this RAWP Addendum. The HASP will summarize the health and safety protocols to be followed by field personnel during all field activities.

2.1 Utility Coordination and Markout

The presence and location of utilities/structures that may impact the installation of the DNAPL monitoring/recovery wells will be identified prior to conducing any intrusive work. Dig Safely New York (811) will be notified a minimum of three days prior to starting project intrusive activities to identify and mark out the locations of utilities entering the site. Additionally, a private utility locator will identify and mark out the approximate location of subsurface utilities and other potential subsurface obstructions near/adjacent to the location of the DNAPL monitoring/recovery wells using electromagnetic (EM) and ground-penetrating radar (GPR) survey techniques.

2.2 Noise, Dust, Vapor, and Odor Control Measures

Appropriate measures will be implemented during the DNAPL monitoring/recovery well installation and groundwater monitoring well decommissioning activities to limit the generation of noise, vapor/odors, and dust to within acceptable limits. A Noise Mitigation Plan will be prepared compliant with New York City (NYC) Administrative Code, Chapter 28; the field crew will maintain a copy of the plan at the Site during all field activities. Air monitoring will be performed during all intrusive activities in accordance with the June 2000 NYSDOH Generic Community Air Monitoring Plan (CAMP). The purpose of CAMP is to prevent exposure of the community to airborne hazardous constituents at levels above accepted regulatory limits. Both the Noise Mitigation Plan and CAMP will be included as appendices in the HASP.

2.3 NAPL Monitoring/Recovery Well Installation

As shown on Figure 2, a total of four new DNAPL monitoring/recovery wells (i.e., MW-118 through MW-121) will be installed to collect and facilitate the recovery of potentially mobile DNAPL (if any) in the northern portion of Watson Avenue. The new DNAPL monitoring/recovery wells will generally be installed near dips in the confining clay unit along Watson Avenue to facilitate DNAPL recovery; a geological cross-section showing the approximate location of the DNAPL monitoring/recovery wells is shown on Figure 3. The locations are preliminary and may be adjusted based on field observations, access, the presence of utilities, or other at-surface or subsurface structures.

Prior to drilling the soil borings to facilitate the installation of the new DNAPL monitoring/recovery wells, existing asphalt surfaces will be saw cut or cored using a thin-wall core machine, as necessary. The soil borings will initially be advanced using air-knife/vacuum extraction techniques (or other appropriate methods) to a depth of approximately 5 below grade to confirm that no utilities are present at the proposed

well location. The soil borings (minimum diameter of 10 inches) will then be advanced using rotosonic drilling techniques to a depth of at least 5.5 feet into the confining clay unit (typically encountered at a depth of approximately 20 feet below grade). Soil recovered from each soil boring will be field screened for the presence of organic vapors using a photoionization detector (PID) and will be visually characterized for color, texture, and moisture content. The presence of visible staining, sheen, DNAPL, and obvious odors encountered in the soil (if any) will also be documented.

DNAPL monitoring/recovery wells will be constructed using 6-inch-diameter Schedule 40 polyvinyl chloride (PVC) well casing equipped with a 10-foot-long 0.02-inch (20 slots per inch) well Screen and a 5-foot-long sump set into the confining clay unit. NAPL monitoring/recovery wells will be screened from approximately 9.5 feet above the clay unit to approximately 0.5 feet below the surface of the clay unit; with the 5-foot-long sump below the screened interval. The annulus between the sump and the borehole will be tremie-grouted in place with cement-bentonite grout to the top of the sump. After allowing the grout to cure per the manufacturer's specification, a Morie No. 1 sandpack will be placed in the annulus between the well screen and the borehole wall and will extend from the base of the screen to approximately 1- to 2-feet above the top of the screen interval. An approximately 2-foot-thick hydrated bentonite seal will be installed above the sandpack. The remainder of the annular space will be filled to a depth of approximately 18-inches below grade with cement-bentonite grout. A sand drain will be placed from approximately 12-inches to 18-inches below grade. Each well will be fitted with a locking J-plug cap and completed with a flush-mount well vault installed within an approximately 2-foot-diameter, 1-foot-thick concrete surface pad. NAPL monitoring/recovery well construction details are shown on Figure 4.

At least 24 hours following installation, the DNAPL monitoring/recovery wells will be developed by surging/ purging using a positive displacement pump and dedicated polyethylene tubing or new, disposable polyethylene bailers. The well will be developed by alternately surging and purging the well screen until the water removed from the well is reasonably free of visible sediment (50 nephelometric turbidity units [NTUs] or less),until turbidity has stabilized (i.e., three consecutive measurements within 10% of each other) following the removal of approximately 10 well volumes of groundwater, or until the well is pumped dry.

2.4 Groundwater Monitoring Well Decommissioning

A total of five existing monitoring wells screened below the confining clay unit (i.e., MW-112, MW-113A, MW-115, MW-116, and MW-117) will be abandoned (Figure 2). Existing monitoring well decommissioning activities will be completed in accordance with NYSDEC Commissioner's Guidance CP-43: Groundwater Monitoring Well Decommissioning Policy (NYSDEC 2009). A NYSDEC monitoring well field inspection log for use in documenting well conditions at the time of abandonment is included in Attachment A. Consistent with NYSDEC's policy, existing monitoring wells will be decommissioned via pulling the upper five feet of well casing and grouting the wells in place (to ground surface) with a non-shrink grout. A NYSDEC Well Decommissioning Record (including in Attachment B) will be completed for each decommissioned monitoring well and submitted to the NYSDEC as part of a summary report summarizing the well decommissioning activities.

2.5 Equipment Decontamination and Waste Management

All drilling equipment will be decontaminated between DNAPL monitoring/recovery well locations and between the well decommissioning locations. A decontamination pad will be constructed at a location to be determined in the field. All decontamination will occur within the decontamination containment pad using a steam cleaner. Decontamination water will be containerized for characterization and proper off-site disposal by Con Edison.

Soil cuttings, personal protective equipment (PPE), spent disposable sampling materials, and fluids generated during sampling and decontamination activities will be segregated by waste type and placed in DOT-approved 55-gallon steel drums. Each drum/container will be appropriately labeled (i.e., with the contents, generator, location, and date). A representative sample of the soil cuttings and PPE will be collected for collected for waste characterization/disposal purposes and will be submitted for laboratory analysis for Toxicity Characteristic Leaching Procedure (TCLP) VOCs, TCLP SVOCs, TCLP metals, polychlorinated biphenyls (PCBs), ignitability, corrosivity, and reactivity. A representative waste characterization sample of the monitoring well purge water and decontamination fluids will be collected for laboratory analysis for target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), target analyte list metals, ignitability, corrosivity, and reactivity. Waste characterization samples will be analyzed on an expedited analytical turn around basis to facilitate timely off-site transport and disposal/treatment by Con Edison approved waste vendors.

2.6 Land Survey

Following the completion of the well installation activities, a land survey will be completed by a New York State Licensed Surveyor the document the location and top of casing/ground surface elevation for each of the newly installed DNAPL monitoring/recovery wells. The horizontal survey will be conducted relative to the New York State Plan Coordinate System, and vertical survey measurements will be relative to the North American Vertical Datum of 1988.

3 DNAPL MONITORING/RECOVERY

Approximately one week following installation of the new NAPL monitoring/recovery wells (i.e., MW-118 to MW-121), periodic DNAPL monitoring and recovery activities will be conducted for a period of one year to assess the absence/presence of mobile DNAPL in the northern portion of Watson Avenue. The monitoring and recovery activities will consist of gauging each well for the presence of DNAPL and removing DNAPL (to the extent practicable) from any well where more than three inches of DNAPL is observed. DNAPL gauging will be performed using an oil/water interface probe and/or weighted measuring tape. DNAPL recovery will be conducted passively by manual bailing or pumping (using a portable peristaltic pump or hydrolift pump). The volume of DNAPL removed from each well will be measured using a graduated measuring cup.

DNAPL monitoring/recovery activities will be conducted for a period of one year using the following schedule/ protocol:

- DNAPL monitoring/recovery activities will initially be conducted on a monthly basis.
    - If the observed DNAPL thickness is greater than three inches but less than three feet, DNAPL will be removed and the volume of DNAPL recovered will be recorded.
    - If the observed DNAPL thickness is three feet (i.e., at the top of the well sump) or greater, then the DNAPL monitoring/recovery frequency will be increased to weekly or biweekly based on the observed NAPL recovery rates. DNAPL monitoring/recovery frequency will be decreased back to once per month once the observed DNAPL thickness is less than three feet over a one-month interval.
- Monthly DNAPL monitoring/recovery activities will continue for one quarter (three monthly events) prior to reducing the DNAPL monitoring/recovery frequency to once per quarter, provided that the observed DNAPL thickness in any of the recovery wells is less than three feet in one quarter.
- If DNAPL continues to accumulate to a thickness of three feet or greater in less than a quarter in any of the wells, then monthly DNAPL monitoring/recovery will continue for those wells while the other wells are monitored quarterly.

The frequency of the DNAPL monitoring/recovery activities will be modified based on the rate of DNAPL accumulation in the wells, with monitoring/recovery activities conducted at a suitable frequency to prevent overflowing of the 5-foot-long sump in each well.

DNAPL and water collected from the recovery wells will be containerized in New York State Department of Transportation (NYSDOT)-approved 55-gallon drums. The drums will be properly labeled and immediately transported for off-site disposal in accordance with the waste characterization and handling protocols presented in Section 2.5.

4 REPORTING

This section summarizes the submittals that will be prepared to document the planned field activities presented in this RAWP Addendum and potential future activities that will be conducted for OU-2. Anticipated submittals include:

- An Interim SMP
- A NAPL Monitoring/Recovery Summary Report

The contents of each document are presented below.

4.1 Interim Site Management Plan

Following the completion of the field activities described in this RAWP addendum, an Interim SMP will be prepared to summarize potential future activities that will be conducted for OU-2 (until final remedial activities are implemented for OU-1 of the site). The Interim SMP will be developed in accordance with NYSDEC's DER-10 and the most current version of the SMP template available on NYSDEC's website. The anticipated outline for the Interim SMP will include:

- Section 1, Introduction – will provide general information and notification requirements regarding SMP modifications and site work.
- Section 2, Summary of Previous Investigations and Remedial Actions – will describe the site setting, geology, and hydrogeology, as well as a summary of the completed remedial activities and extent to remaining impacts.
- Section 3, Institutional and Engineering Control Plan – describes the engineering and institutional controls to be implemented at the site. The Decision Document indicates that the Institution and Engineering Control Plan will identify all use restrictions and engineering controls for the site and detail the steps and media-specific requirements necessary to ensure the institutional and/or engineering controls remain in place and effective. Based on further evaluation of site conditions, Con Edison does not propose to implement an environmental easement for OU-2 since the only remaining MGP-related residuals are encountered at depths of over 15 feet below ground surface, the site is zoned for industrial use (M1), and groundwater in the vicinity of the site is not used as a source of drinking water.
- Section 4, Monitoring and Sampling Plan – provides the requirements site monitoring activities (e.g., groundwater/NAPL monitoring and recovery components of the Decision Document).
- Section 5, Operation and Maintenance Plan – describes the requirements associates with mechanical and/or automated remedial systems installed at the site. No automated recovery/treatment systems will be included as part of the site remedy, a generic place holder will be used for this section.
- Section 6, Periodic Assessments/Evaluations – describes the periodic evaluations to be conducted to review the site's vulnerability of climate change, use of green remediation practices, and optimization of remedial systems.
- Section 7, Reporting Requirements – provides the requirements for documenting completed monitoring and maintenance activities.

Additionally, the Interim SMP will be supported by a series of tables (e.g., summarizing historical analytical data, groundwater levels, monitoring well conditions, etc.) and figures (e.g., site plans, extent of remaining impacts, etc.), as well as the following (to be include as appendices to the Interim SMP):

- Health and Safety Plan
- Generic Community Air Monitoring Plan
- Field Sampling Plan
- Quality Assurance Project Plan
- Site Inspection Forms
- Well Construction Logs

4.2 Construction Completion Report

Following the completion of one year of NAPL monitoring and recovery activities, Con Edison will prepare an OU-2 Construction Completion Report (CCR) for submittal to the NYSDEC. The OU-2 CCR will include the following:

- A description of the field activities including health and safety monitoring, CAMP monitoring, field observations, problems encountered, and other pertinent information necessary to document that the site activities were performed pursuant to this RAWP Addendum.
- Boring, test pit, and NAPL monitoring/recovery well construction logs.
- Summary tables presenting the analytical testing results.
- Monitoring well decommissioning details.
- An updated site plan(s) showing the locations of the new DNAPL monitoring/recovery wells, as well as the locations of identified above- and below-ground utilities and pertinent subsurface features identified.
- DNAPL monitoring/recovery data.
- An evaluation of the need to modify the long-term DNAPL monitoring/recovery program, including an analysis of potential passive and active recovery options and details to support basis for the selected approach.

5 SCHEDULE SUMMARY

The anticipated schedule for implementing the activities presented in this RAWP Addendum (e.g., installing the new NAPL monitoring/recovery wells, decommissioning existing groundwater monitoring wells, performing NAPL monitoring/recovery activities, conducting a land survey, and preparing an Interim SMP, etc.) is presented below.

Table 5-1. Preliminary Project Schedule

Schedule Component	Date
Well Installation/Decommissioning	TBD (following RAWP Addendum approval, execution of access agreements, and permitting)
Utility Coordination and Markout	1 Day
Install New NAPL Monitoring/Recovery Wells	10 Days
Decommission Select Existing Groundwater Monitoring Wells	5 Days
Conduct Land Survey	1 Day
Preparation of Well Abandonment Report	4 Weeks (following well abandonment)
Submit Draft Interim SMP to NYSDEC	12 Weeks (following completion of the well Installation/decommissioning activities)
First Year of NAPL Monitoring/Recovery	Monthly for One Quarter, then Quarterly for first year
OU-2 CCR	10 Weeks (following completion of first year of NAPL monitoring/recovery activities)

This schedule for implementing the proposed remedial alternative is dependent on several factors, including time required to gain property access and receipt of NYSDEC comments on project submittals.

6 REFERENCES

Arcadis, 2018. Remedial Action Work Plan, Former Unionport Gas Works Site – OU-2, Bronx, New York, June 2018.

NYSDEC, 2010. DER-10, Technical Guidance for Site Investigation and Remediation, May 2010.

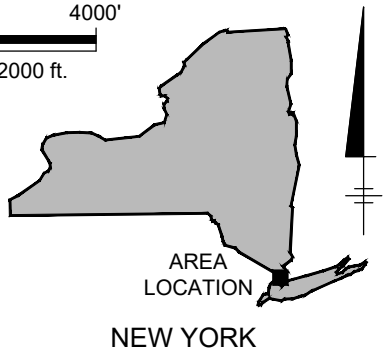
NYSDEC, 2019. Decision Document, CE - Unionport Works. Operable Unit Number02: Off-site areas to the north of Watson Avenue, Operable Unit Number 03: Westchester Creek, State Superfund Project, Bronx, Bronx County, Site No. 203109, November 2019.

FIGURES

REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., FLUSHING, NY, 2016.

0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.



CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
FORMER UNIONPORT GAS WORKS SITE - OU-2
BRONX, NEW YORK

REMEDIAL ACTION WORK PLAN ADDENDUM

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: SYRACUSE NY DIV/GROUP: ENVCAD DB: E. KRAHMER PIC: PM: TM: TR: D. A. RODRIGUEZ LYR:(On)ON=*;OFF=*REF*
C:\Users\akens\OneDrive - ARCADIS\BIM 360 Docs\CON EDISON\Former Zerega Ave. Gas Holder Site\2020\B0043515.0020\01-DWG\RAWP-Fig1-SLM.dwg LAYOUT: 1 SAVED: 4/22/2020 2:42 PM ACADVER: 23.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 4/22/2020 2:43 PM BY: AKENS, DAVID
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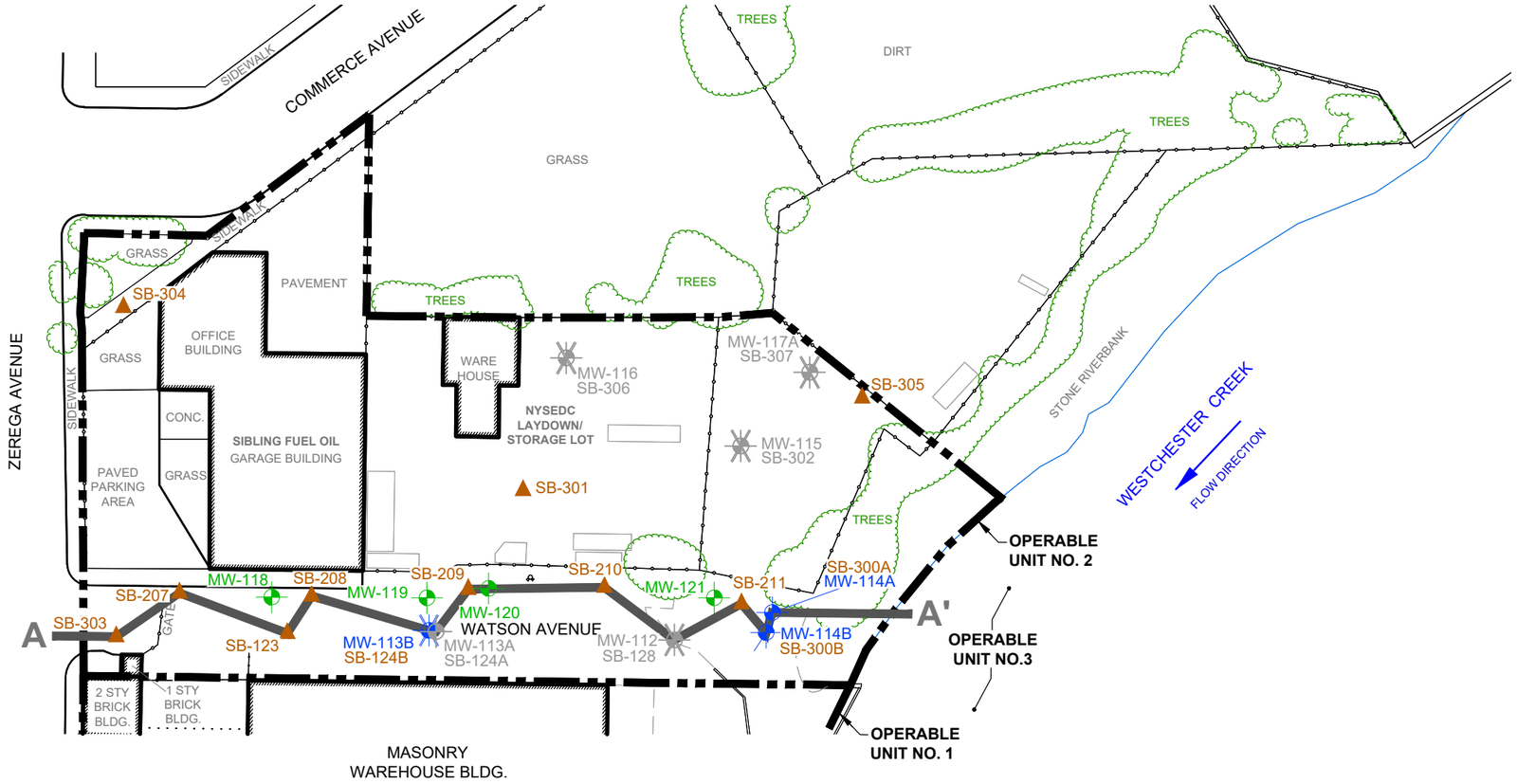

LEGEND:

- CHAINLINK FENCE
- OPERABLE UNIT BOUNDARY
- OVERHEAD STRUCTURE
- CATCH BASIN
- MW-118 — NAPL MONITORING/ RECOVERY WELL
- MW-103 — GROUNDWATER MONITORING WELL
- MW-113A — MONITORING WELL TO BE DECOMMISSIONED
- SB-111 — SOIL BORING
- A — A' — CROSS SECTION LOCATION

NOTES:

1. BASEMAP PREPARED FROM SURVEYS BY MUÑOZ ENGINEERING P.C., 2008 & 2014.
2. FLOW IN WESTCHESTER CREEK IS TIDALLY INFLUENCED.

0 80' 160'

GRAPHIC SCALE

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
FORMER UNIONPORT GAS WORKS SITE - OU-2
BRONX, NEW YORK

REMEDIAL ACTION WORK PLAN ADDENDUM

NAPL MONITORING/RECOVERY WELL LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE **2**

CITY: SYRACUSE NY GROUP: ENV/IM-DV DB: E. KRAHMER, R. ALLEN LD: (Opt.) PIC: M. MILLER PM/TM: M. JONES TR: D. A. RODRIGUEZ LYR:ON=*;OFF=REF; (FRZ)
C:\Users\barobita\BIM 360\Arcadis\ANA - CON EDISON\Project Files\Former Zerega Ave. Gas Holder Site\2020\30049734.001101-DWG\RAWP-Fig2-Prop Remedial Alt.dwg LAYOUT: 2 SAVED: 6/12/2020 6:25 AM ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED:
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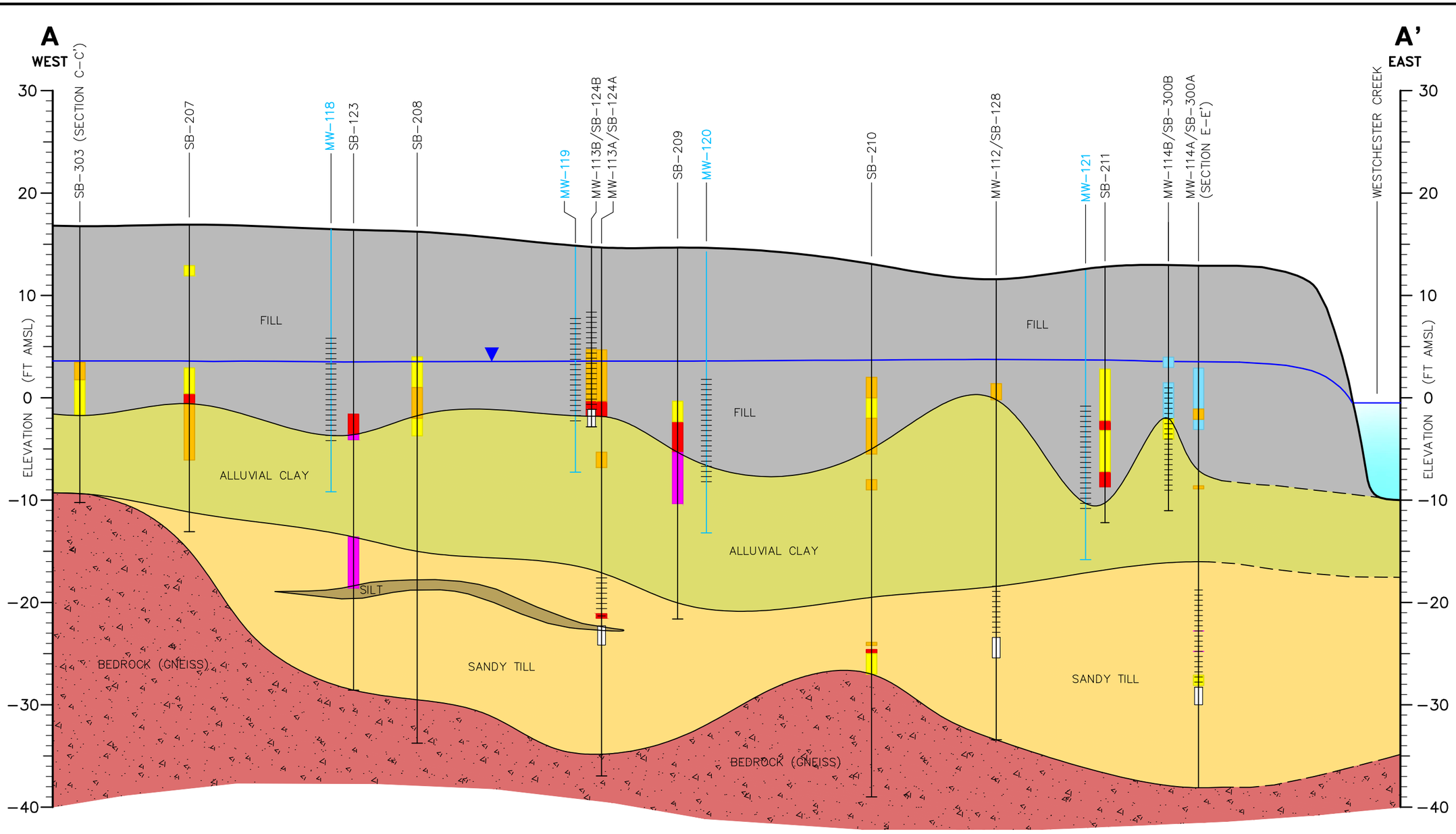

LEGEND:

- WELL OR BORING ID (SB-303)
- GROUND SURFACE
- GROUNDWATER
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- SCREEN
- SUMP
- BOTTOM OF BORING

- UNDIFFERENTIATED FILL
- ALLUVIAL CLAY
- GLACIAL TILL (SAND AND SILT)
- SILT
- GNEISS (HARTLAND FORMATION)

- TAR SATURATED
- COATED MATERIAL
- BLEBS, SHEEN
- STAINING, ODOR
- PETROLEUM IMPACTS STAINING, ODORS

NOTES:

1. WATER ELEVATION IN WESTCHESTER CREEK IS APPROXIMATE.
2. GROUNDWATER ELEVATIONS AS MEASURED ON 4/28/2014.
3. THE NAPL MONITORING/RECOVERY WELLS ARE SHOWN IN BLUE.

VERTICAL EXAGGERATION = 4X

0 10' 20'
VERTICAL SCALE

0 40' 80'
HORIZONTAL SCALE

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
FORMER UNIONPORT GAS WORKS SITE - OU-2
BRONX, NEW YORK
REMEDIAL ACTION WORK PLAN ADDENDUM

GEOLOGIC CROSS SECTION A-A'

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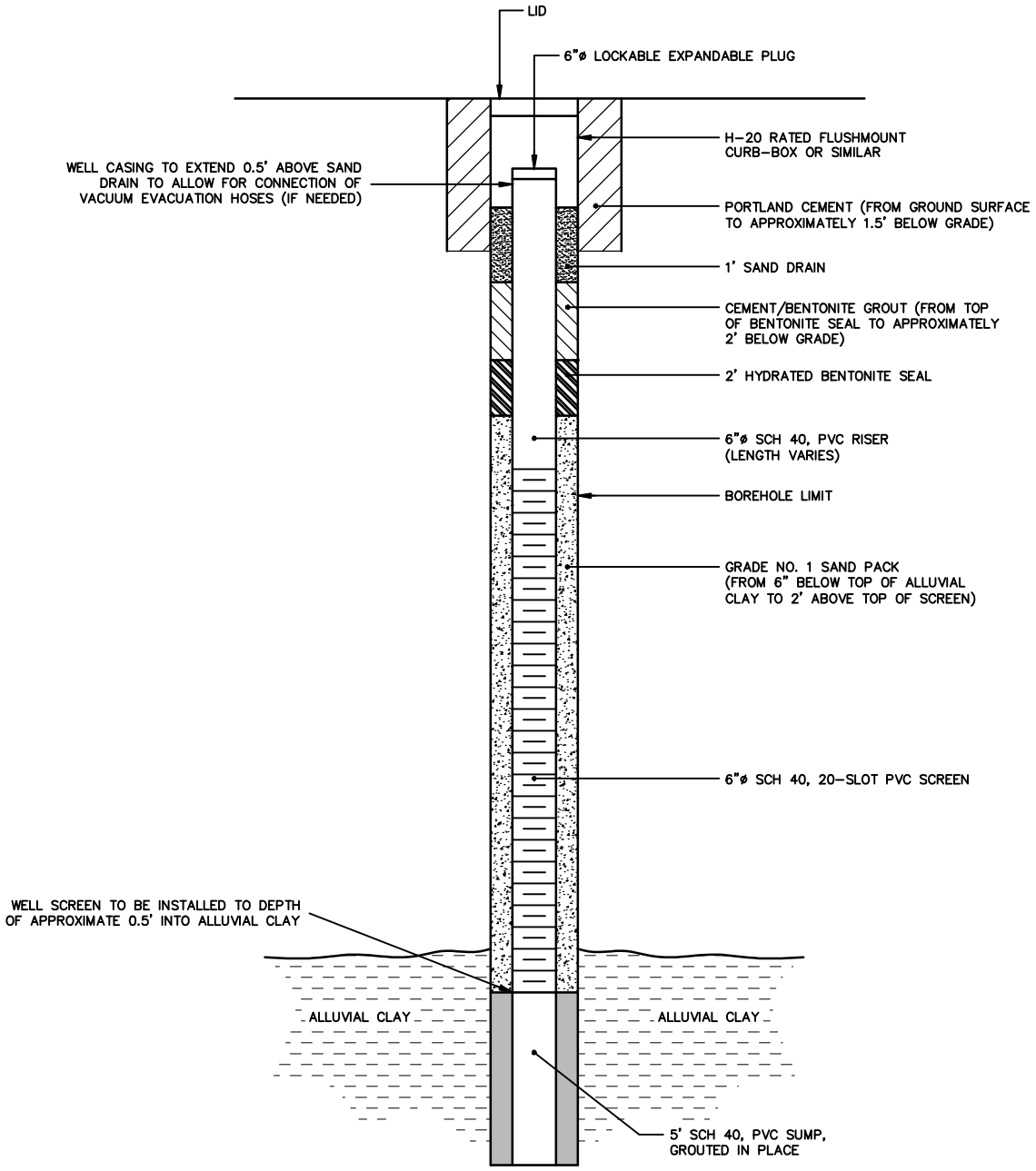
FIGURE
3



NAPL MONITORING/RECOVERY WELL

NOT TO SCALE

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
FORMER UNIONPORT GAS WORKS SITE - OU-2
BRONX, NEW YORK
REMEDIAL ACTION WORK PLAN ADDENDUM

NAPL MONITORING/RECOVERY WELL CONSTRUCTION DETAILS

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FIGURE
4

Attachment A

Monitoring Well Field Inspection Log

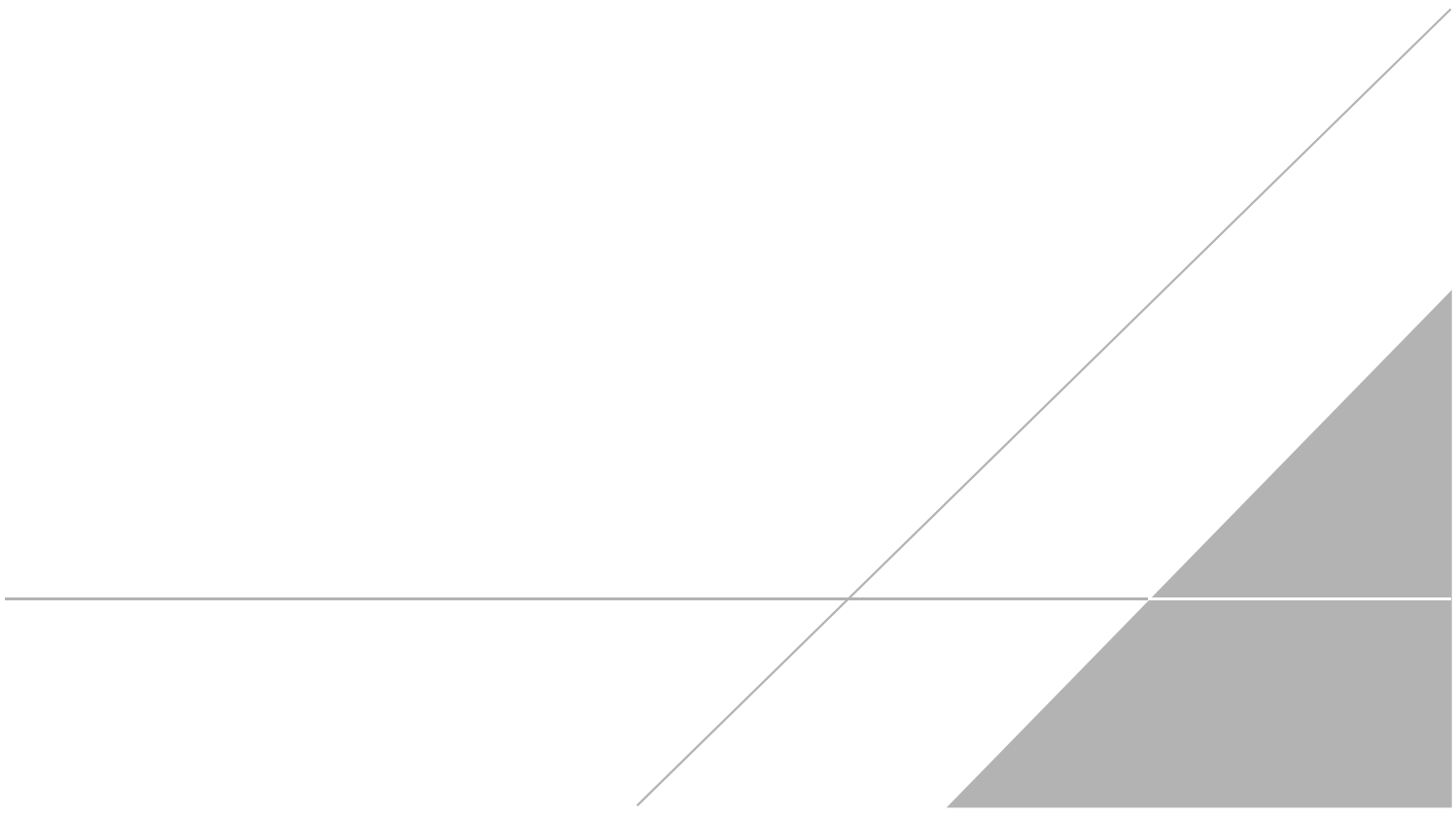


FIGURE 1

SITE NAME:

SITE ID.: _____
INSPECTOR: _____
DATE/TIME: _____
WEll ID.: _____

MONITORING WELL FIELD INSPECTION LOG
NYSDEC WELL DECOMMISSIONING PROGRAM

	YES	NO
WELL VISIBLE? (If not, provide directions below)		
WELL I.D. VISIBLE?		
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....		

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	YES	NO
SURFACE SEAL PRESENT?		
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)		
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)		

HEADSPACE READING (ppm) AND INSTRUMENT USED..... _____
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) _____
PROTECTIVE CASING MATERIAL TYPE: ..... _____
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... _____

	YES	NO
LOCK PRESENT?		
LOCK FUNCTIONAL?		
DID YOU REPLACE THE LOCK?		
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		
WELL MEASURING POINT VISIBLE?		

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): ..... _____
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): ..... _____
MEASURE WELL DIAMETER (Inches): ..... _____
WELL CASING MATERIAL: ..... _____
PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... _____
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE ..... _____
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... _____

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

REMARKS:

Attachment B

Well Decommissioning Record

FIGURE 3

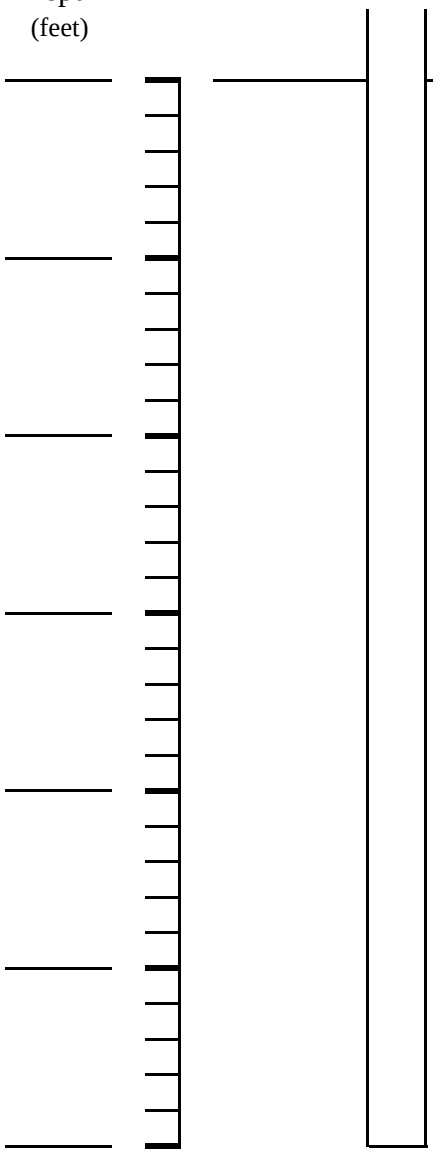
WELL DECOMMISSIONING RECORD

Site Name:	Well I.D.:
Site Location:	Driller:
Drilling Co.:	Inspector:
	Date:

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

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