

Former Ronson Metals Site

Manufacturers Place
Newark, Essex County

May 24, 2016

Presented by
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Former Ronson Metals Site



Ronson Metals Background

- Operated from mid-1950's until 1986 closure
- Manufactured different types of specialty metal products for lighter flints and strikers
- One of the chemicals used was Trichloroethene (TCE)
 - TCE is a common solvent and degreaser
 - TCE is one of a class of volatile organic compounds (VOCs) known as chlorinated volatile organic compounds (CVOC)
 - Volatile means it can become a vapor



Background

- Ronson soil cleanup started 1991. Included a groundwater investigation (monitoring wells)
- Groundwater samples from wells contained TCE above DEP's Ground Water Quality Standards (GWQS)
- Soil samples also contained TCE above the DEP's Soil Cleanup Criteria (SCC)

Background

- Soils containing TCE contamination and other volatile organic compounds (VOCs) were capped under clay and left in place under a Deed Notice (a document that notifies of environmental conditions at a property)
 - Focus is TCE, but contaminants found will be investigated and addressed
- TCE vapors are causing vapor intrusion in some buildings/homes along Manufacturers Place and Vincent Street. Sub-slab depressurization systems installed.
 - Sub-slab depressurization systems are operating and effectively removing vapors in homes

Purpose of 2015 Remedial Investigation

- Confirm source and location of impacts
- Focus on groundwater – which is commonly the source of vapor intrusion
- Evaluate groundwater flow direction
- Assess groundwater quality and area affected
- Confirm and delineate soil gas impacts (assess the area where soil gas impacts exceed Residential Soil Gas Screening Levels)
- Evaluate data – compare to DEP standards

2015 Remedial Investigation

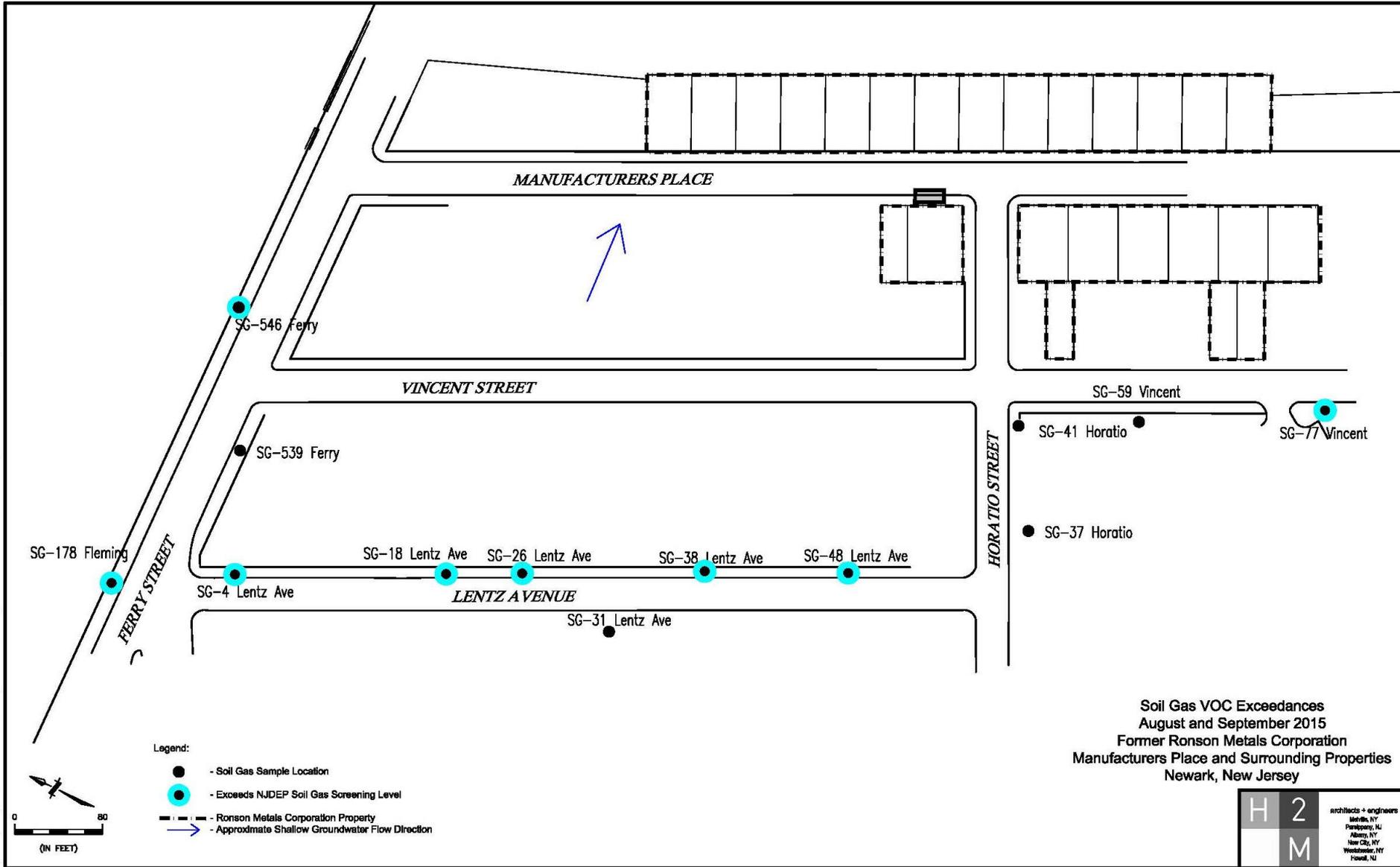
- Utility clearance before drilling
- 13 soil gas sample points
- 22 temporary well points in neighborhood to collect groundwater samples to guide well placement
- 5 permanent groundwater monitoring wells installed & groundwater sampled
- Prepared Remedial Investigation report

Evaluation of Soil Gas and Groundwater

Compared data to DEP standards & screening levels

- Soil gas data compared to:
 - Residential Soil Gas Screening Levels (RSGSL)
- Groundwater data compared to:
 - Groundwater Quality Standards (GWQS) – Class IIA
 - Generic Vapor Intrusion Groundwater Screening Levels (VIGWSL)

2015 Soil Gas Results

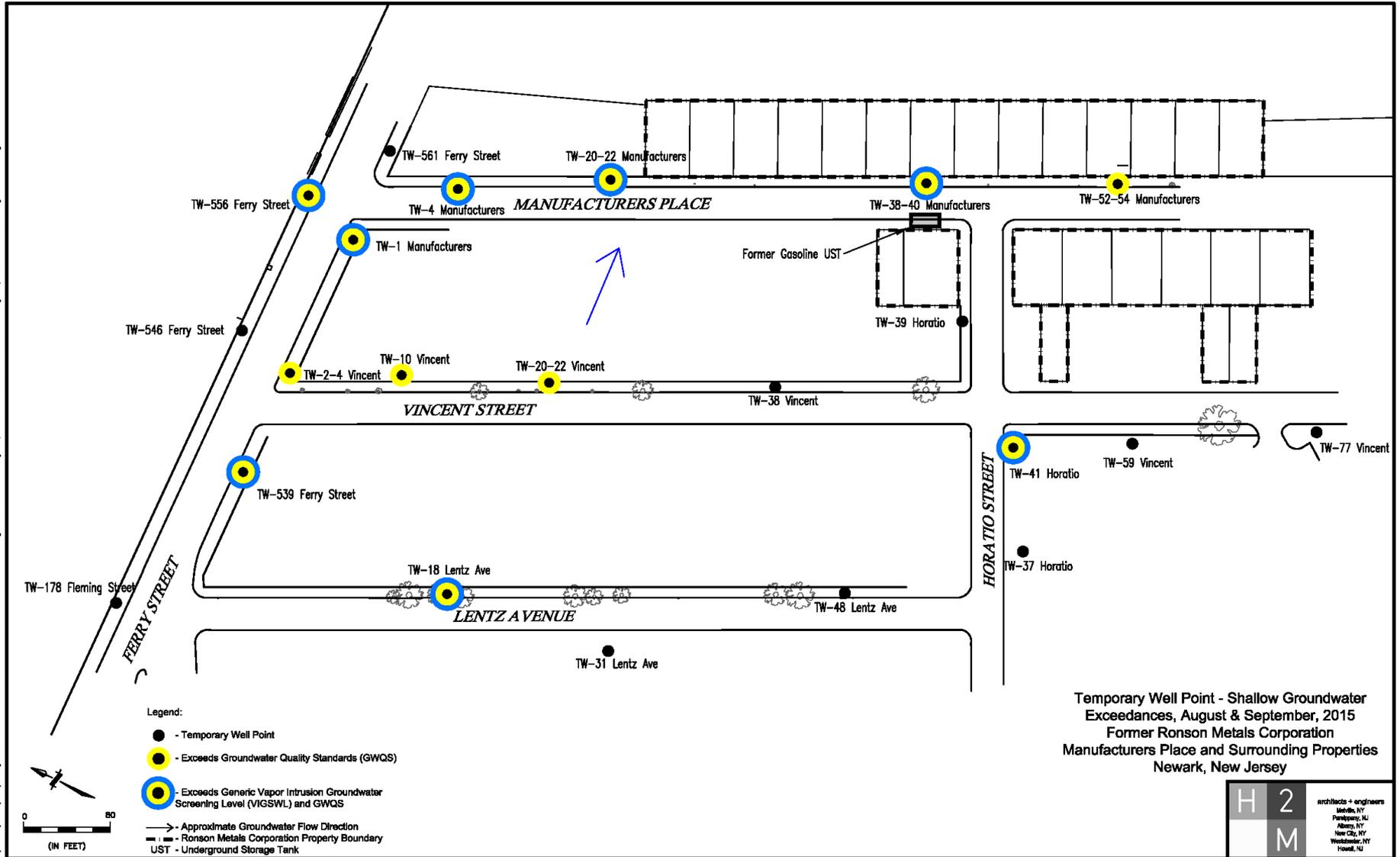


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2015 Soil Gas Results

- 13 samples along Horatio & Vincent Streets and Lentz Avenue
- No TCE above Residential Soil Gas Screening Levels (RSGSL)
- 8 samples had chloroform above DEP's RSGSL
- 4 samples also had tetrachloroethene (PCE) above DEP's RSGSL

2015 Temporary Well Results

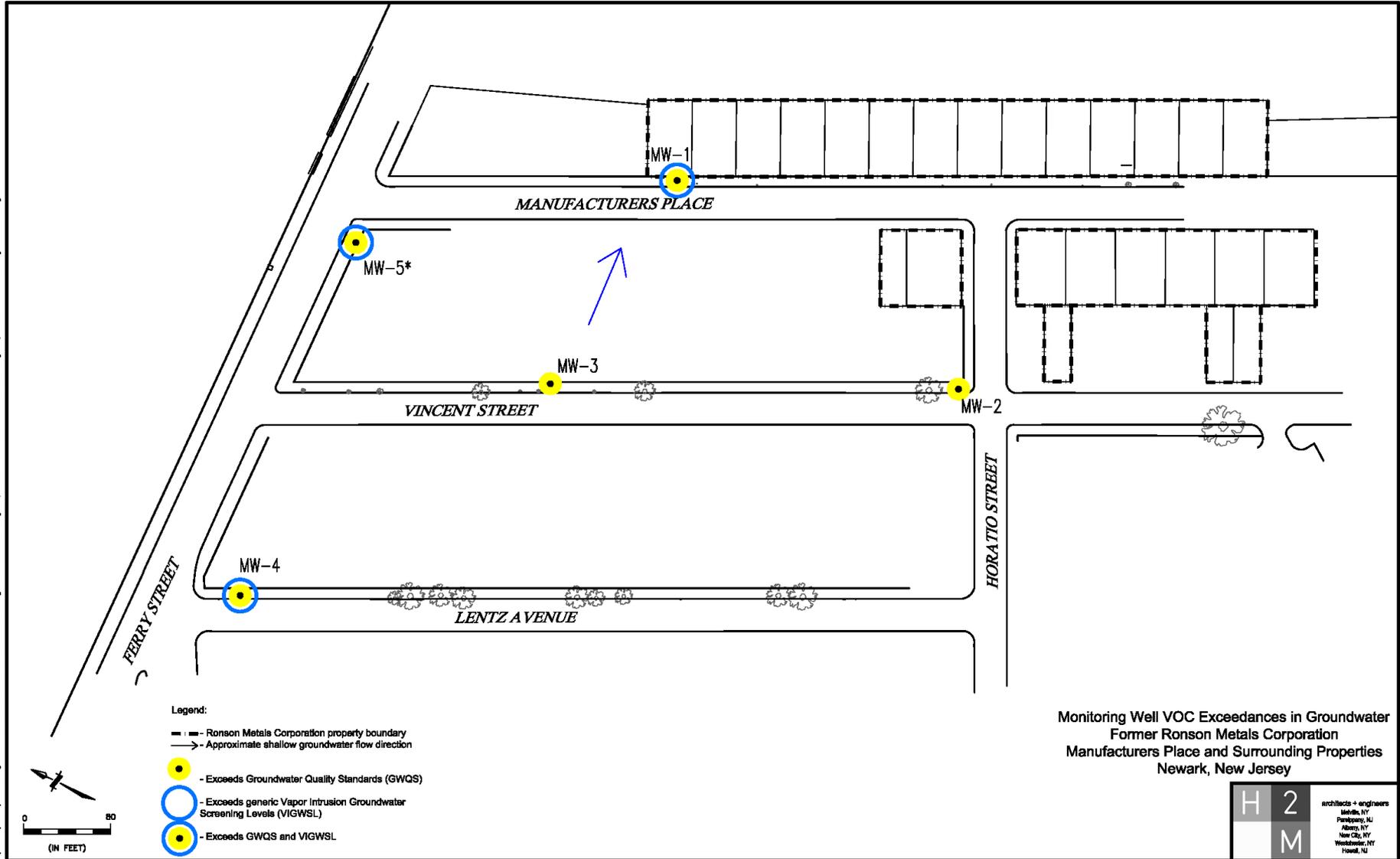


I:\NADP\1501\Temporary Well Point - Shallow Groundwater VOC Exceedances.dwg Last Modified: May 23, 2016 - 9:25am Plotted on: May 23, 2016 - 9:25am By: amsenbanger

2015 Temporary Well Results

- 22 groundwater samples collected
- 12 samples contain one or more chlorinated volatile organic compounds (CVOCs, such as PCE, TCE) above DEP's Groundwater Quality Standards
- 1 sample near former petroleum storage tank (removed March 1995) contained petroleum compounds (benzene, toluene)
- 8 samples are above DEP's Vapor Intrusion Groundwater Screening Level (VIGWSL)

2015 Monitoring Well Samples



2015 Monitoring Well Samples

- 4 shallow wells – 15 feet deep
- 1 deeper well – 61 feet deep
- Groundwater flows to east in shallow zone
- CVOCs present above DEP's GWQS in all 5 wells
- 3 wells contain CVOCs at concentrations above DEP's VIGWSL

Conclusions

- Soil Gas Testing Results
 - CVOCs in soil gas are not delineated
 - Indoor air monitoring along Manufacturers Place, Lentz Avenue and Vincent Street continues
 - If requested, DEP can collect additional samples in the area

Conclusions

- Groundwater Testing Results
 - Groundwater flow is to the east (toward railroad tracks)
 - CVOCs in shallow & intermediate well water
 - Horizontal and vertical extent of CVOCs in groundwater is not complete
 - Concentrations of CVOCs in groundwater do not appear to be source of soil gas
 - Impacted soil at the former Ronson site may be source of soil gas vapors

Next Steps

2016 Investigation

- Evaluation of soil as potential source of CVOCs at the residential properties in footprint of former Ronson site
- Collect soil samples at 18 properties
 - Up to 9 sample locations at each property
 - Sampling soil
 - Sample clay cap, where found
 - Collect 4 groundwater samples from temporary wells
- Resampling of the 5 existing monitoring wells

Step 1 – Obtain Permission from Property Owner

PFSR-009
9/96

Page 1 of 1

STATE OF NEW JERSEY
Department of Environmental Protection
Site Remediation Program
SITE ACCESS AGREEMENT

_____ [hereinafter, "the Property Owner"] at _____ Manufacturers Place hereby grants permission to the State of New Jersey and/or its contactor(s) [hereinafter "the State"] to enter upon certain property known as Block _____, Lot _____, in the City of Newark, Essex County [hereinafter "the Property"] for one or more of the following purposes (check every item as appropriate):

YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. To drill - <input checked="" type="checkbox"/> test well(s), <input checked="" type="checkbox"/> boring(s) or - <input type="checkbox"/> probe hole(s) to remove samples of the soil and/or consolidated geologic formation(s);
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. To geophysically or otherwise log the well(s) or boring(s);
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. To conduct hydrologic testing on the well(s);
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. To install, operate and maintain, upon the premises <input type="checkbox"/> monitoring well(s), <input type="checkbox"/> observation well(s), <input type="checkbox"/> boring(s), <input type="checkbox"/> probe hole(s), <input type="checkbox"/> piezometer(s), or <input type="checkbox"/> water level recorder(s) to be operated by the State until such time as the State deems it no longer necessary to do so;
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. To conduct a land survey, recover boundary markers or locate property corners;
<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. To conduct a surface geophysical investigation;
<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. To seal <input checked="" type="checkbox"/> test well(s), <input type="checkbox"/> observation well(s), <input type="checkbox"/> monitoring well(s), <input checked="" type="checkbox"/> boring(s), <input type="checkbox"/> probe hole(s) or <input type="checkbox"/> piezometer(s);
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Locations for monitoring well(s), observation well(s), boring(s), probe hole(s) or piezometer(s) will be determined by mutual agreement between the State and the Property Owner;
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. Locations for monitoring well(s), observation well(s), boring(s), probe hole(s), or piezometer(s) will be determined by the State.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. Other _____ (To be continued on Page 2)

The State, for itself, its successors and assigns, agrees to indemnify the Property Owner, (its, his, her, their) heirs, successors and assigns, from any and all liability, claims, damages and actions which may result from the negligent use or occupancy of the Property by the State, subject to the following exceptions: 1) The State shall have no obligation to indemnify or hold harmless the Property Owner, (its, his, her, their) heirs, successors or assign, or any of them, for any claims or damages for which the State would have no liability under the New Jersey Tort Claims Act (N.J.S.A. 59:1 et seq.) and the New Jersey Contractual Liability Act (N.J.S.A. 59:13-1 et seq.); 2) The liability, if any, of the State shall be subject to the availability of State of New Jersey's funds, and; 3) The agreement of the State to indemnify, as set forth in this paragraph, shall not apply to any claims, actions or damages which may arise out of, be occasioned by or result from any condition existing on, or which did exist on, the Property at the time of the execution of this agreement, or at any time prior to the execution of this agreement.

In return for granting the rights of access and maintenance set forth hereinabove, the Property Owner acknowledges that (it, he, she, they) has received the following good and sufficient consideration.

- a. The State will make available to the Property Owner the analyses of any samples taken from the well, boring, or probe hole.
- b. The State agrees to return the Property to the general condition which existed prior to its use or occupancy by the State.
- c. Any well, boring, probe hole or piezometer which is installed by the State or its contractors will be closed and sealed by the State in compliance with applicable procedures or rules of the New Jersey Department of Environmental Protection when it is no longer needed.
- d. The Property Owner shall, when the well is no longer needed by the State, have, at the discretion of the State, the option of retaining ownership of the well for the Property Owner's private use, with the understanding that all State requirements governing the well's present or intended use, including abandonment, shall become the responsibility of the Property Owner at the time of the transfer.

This agreement shall take effect on the date on which it is signed by both parties.

For the New Jersey Department of Environmental Protection

Date

(Print Name and Title)

For the Property Owner

Date

(Print Name and Title)



Step 2 – Make Sure No Utilities Present



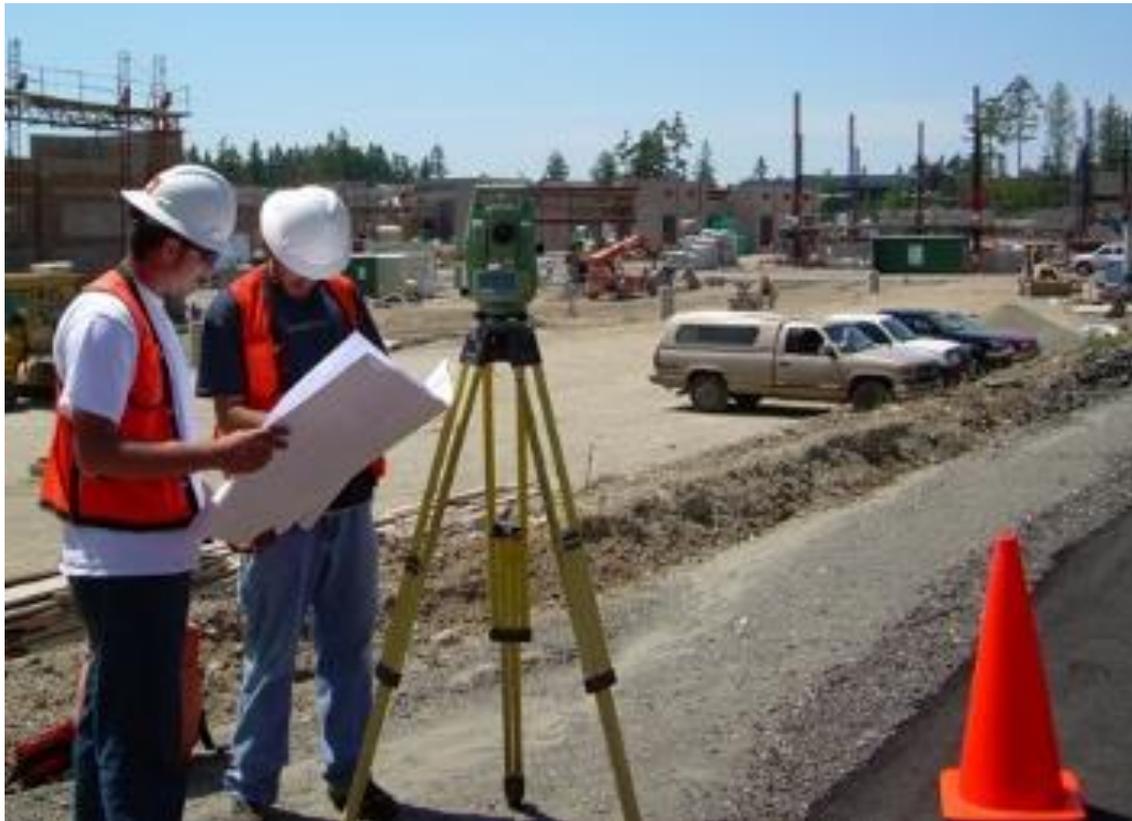
Step 3 – Sampling Equipment (Soil and Groundwater)



Step 4 – Restore Sample Locations

- Remove soil daily from property and maintain safe and clean work area
- Refill soil boring with grout
- Restore existing surface materials
 - Concrete
 - Asphalt
 - Soil
 - Pavers moved then put back

Step 5 – Property Boundary & Sample Location Survey



Step 6 - Groundwater Monitoring Well Sampling



Step 7 – Prepare Report



Estimated Timeline

Step	Action	Estimated Dates
1	Property Access	May – June 24, 2016
2	Utility Clearance	July 2016
3	Soil & Groundwater Sampling	July - August 2016
4	Restore Sample Locations	July - August 2016
5	Property Boundary	July - August 2016
6	Monitoring Well Sampling	July - August 2016
7	Sample Analysis	August – October 2016
8	Laboratory Data Validation	November 2016
9	Prepare Report	November – January 2017

Questions

