



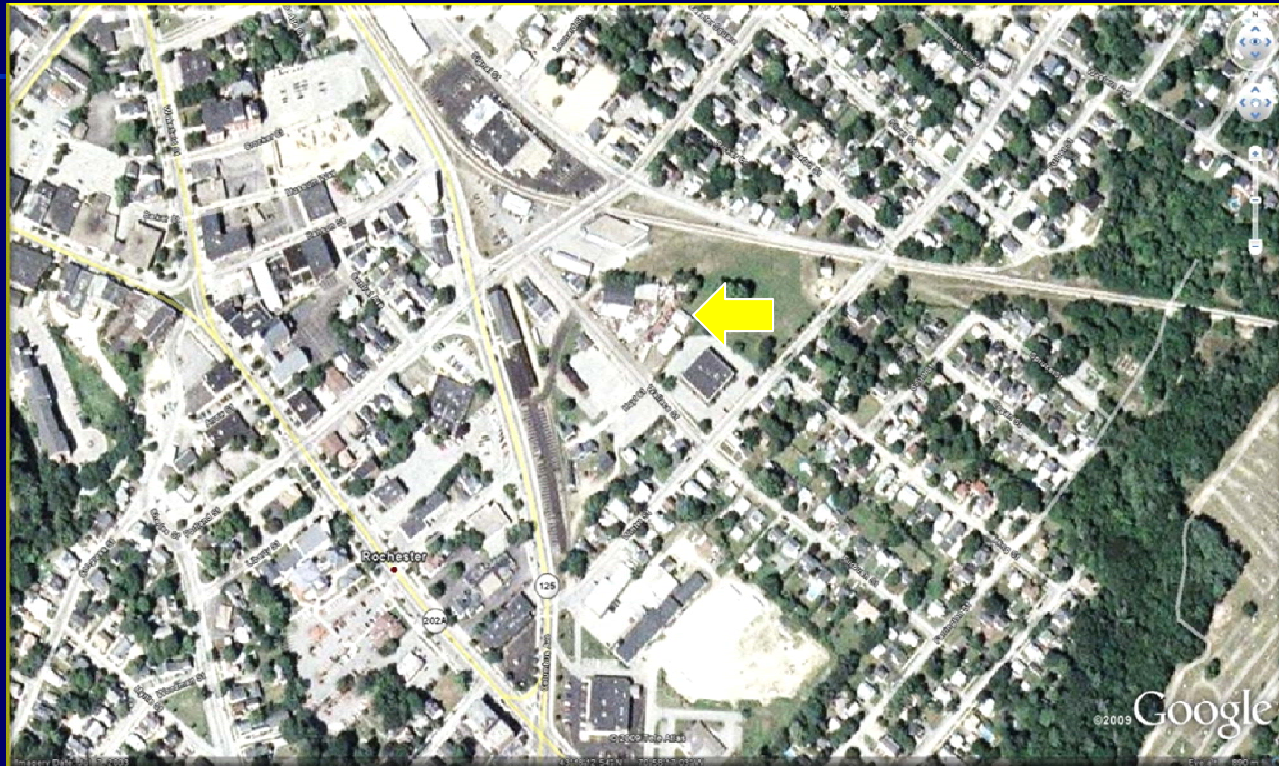
Former Advanced Recycling Brownfields  
Remedial Action Plan  
NHDES Site No. 200309133  
Public Hearing - June 22, 2009

Presenters:

Tim Andrews, PG and Jeff McCullough, PE

**ENGINEERING SOLUTIONS FOR OUR COMMUNITIES AND OUR ENVIRONMENT**





Former Advanced Recycling Site  
10-16 Wallace Street  
Rochester, New Hampshire  
NHDES Site No. 200309133

ENGINEERING SOLUTIONS FOR OUR COMMUNITIES AND OUR ENVIRONMENT



# History of Advanced Recycling Site

- 1892 - Site developed for apparent industrial use
- 1908 - Site occupied by Rochester Foundry & Machine Works
- 1925 - Site occupied by Johnson Foundry and Twin State Gas and Electric Co.
- 1925 -1949 - Site occupied by Johnson Foundry and Diamond Match Co.
- 1958 - Site occupied by L. Weinstein & Sons (scrap metal business) and Public Service Co. of New Hampshire
- 1989 - Site purchased by Steve Cohen/Advanced Recycling
- 2007 - Site transferred to City of Rochester



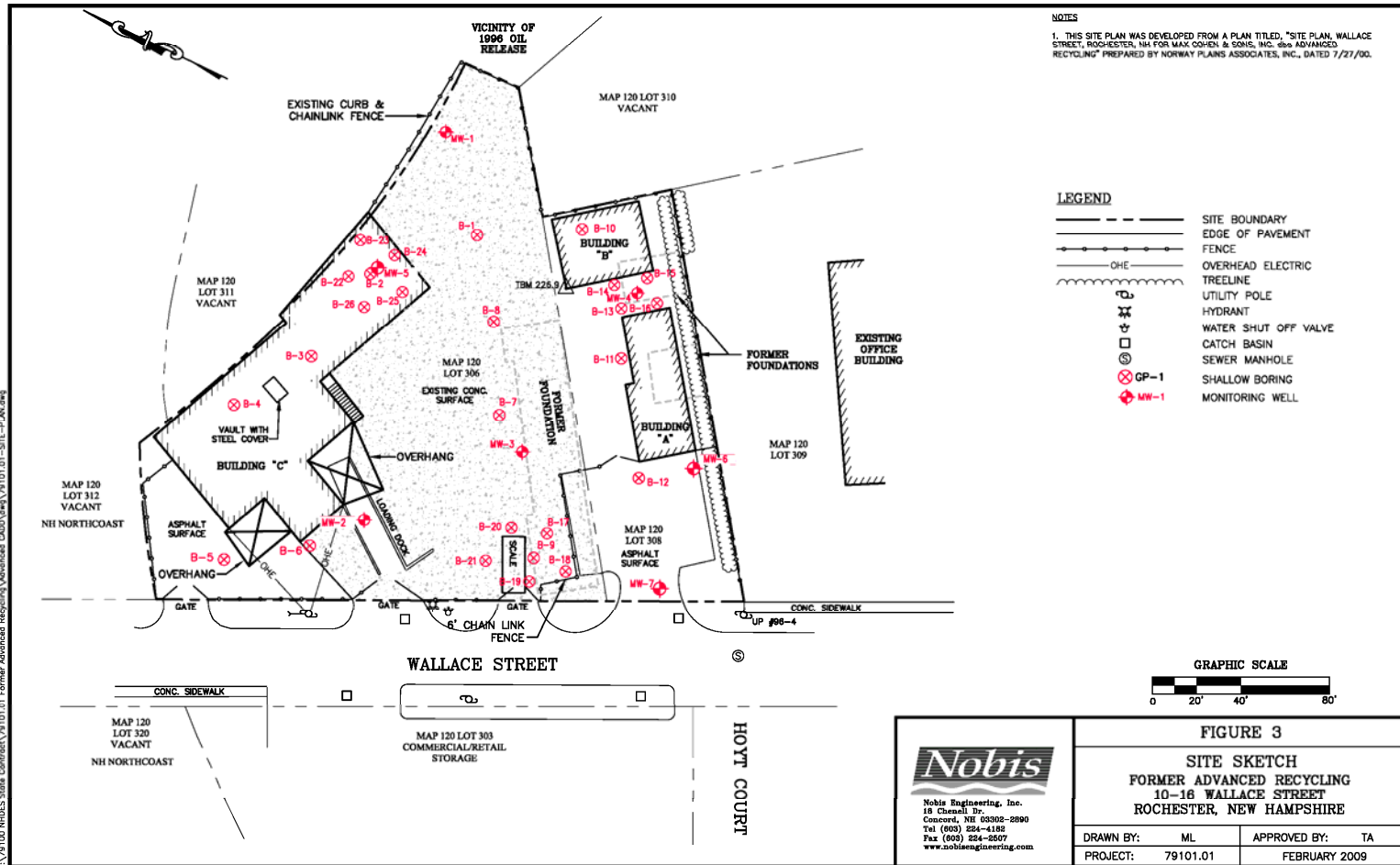
# Site Environmental Chronology

- December 1996 - Complaint filed with NHDES of apparent oil spill at site. Approx. 2 tons of soil impacted by cutting oils excavated and removed from site. No further action required.
- June 2007 - Phase I ESA Completed
- August 2007 - Phase II Site Investigation Completed
- February 2009 - Supplemental Site Investigation/RAP Completed

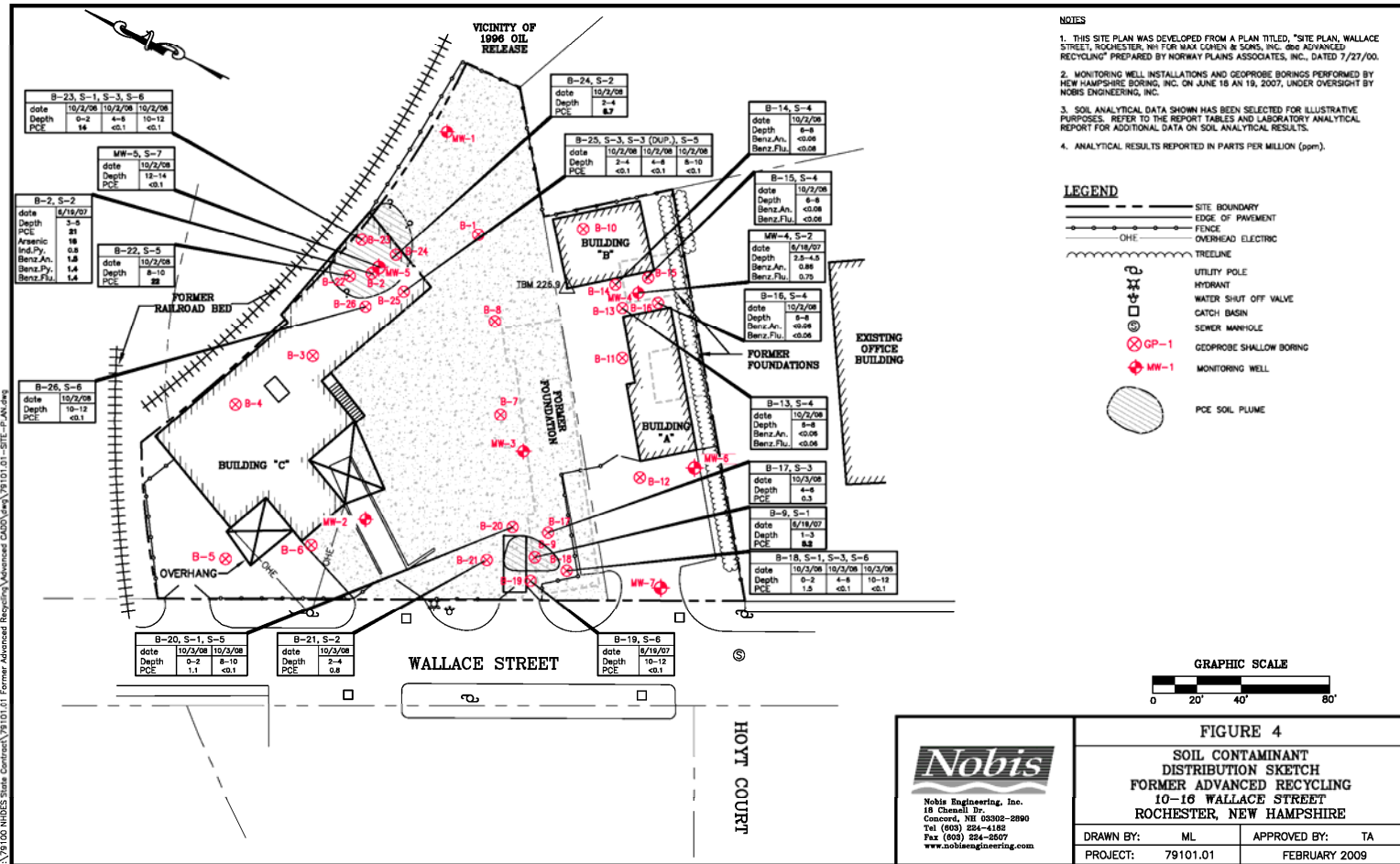




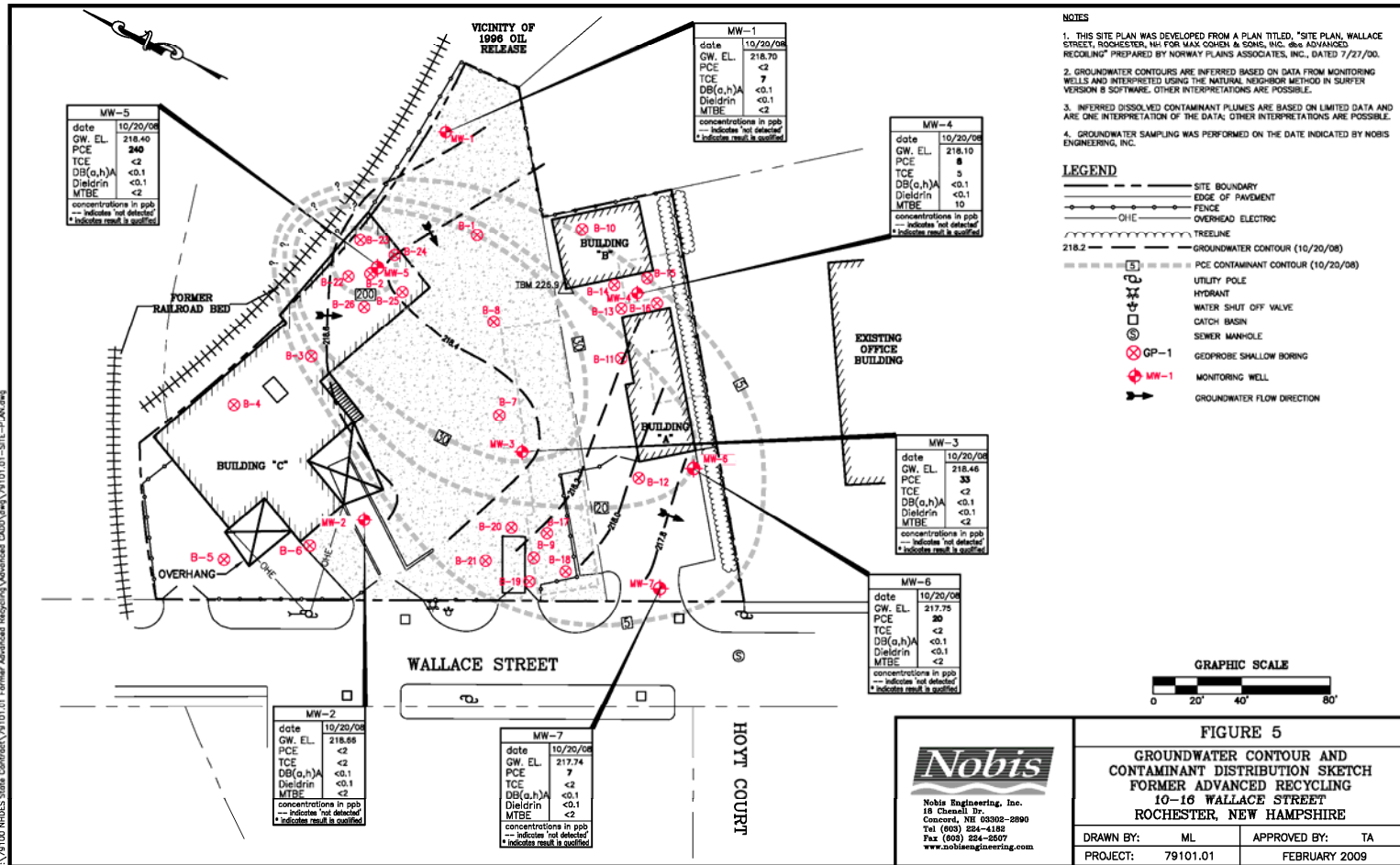
# Phase II Work – Site Explorations



# Phase II Work – Soil Sample Results



# Phase II Work – Groundwater Sample Results



# Summary of Phase II Findings

- Subsurface soil exceedances of State standards for tetrachloroethene (PCE) and some polynuclear aromatic hydrocarbons (PAHs)
- Methyl tertiary-butyl ether (MtBE), PCE, and PAHs present in site groundwater during initial investigation. Supplemental investigation indicated MtBE and PAHs met standards
- PCE exceedances in all site monitoring wells and trichloroethene (TCE; PCE breakdown product) now exceeding at some locations





# Remedial Action Plan

- **Remedial Action Objectives** – effectiveness & reliability, protection of human health & environment, reduction of existing risks, and conducive to site reclamation/redevelopment
- **Off-Site Option** - soil source excavation and disposal
- **On-Site Option** - soil vapor extraction (SVE), vapor barrier, monitored natural attenuation

## COST EFFECTIVE ANALYSIS MATRIX

Remedial Action Plan  
 Former Advanced Recycling  
 10-16 Wallace Street  
 Rochester, New Hampshire 03867  
 NHDES No. 200309133

### ADSORBED HYDROCARBONS

	FEASIBILITY	EFFECTIVENESS	TREATMENT TIME	COST	WEIGHTED SCORE
<i>WEIGHTING</i>	0.20	0.20	0.30	0.30	
Natural Attenuation with Long Term Monitoring (MNA) 30-year	3.0	1.0	1.0	2.0	1.7
Natural Attenuation with Long Term Monitoring (MNA) 20-year	3.0	1.0	1.0	2.0	1.7
Soil Source Excavation and Off-Site Treatment and Disposal	3.0	2.0	3.0	3.0	2.8
SVE	2.0	2.0	2.0	1.0	1.7
Vapor Barrier	3.0	3.0	3.0	1.0	2.4
<i>SUM</i>	11.00	6.00	7.00	8.00	

Rating: Each criteria is scored 1 to 3 where 1 is lowest and 3 is the best rating.



# Questions & Answers

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