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IMMEDIATE RESPONSE ACTION
STATUS REPORT #1
123 Williams Street
North Dighton, Massachusetts
MADEP RTN: 4-16565

Prepared for:

Mr. Charles Pollina
American Auto Auction
123 Williams Street
North Dighton, Massachusetts

For Submission to:

Massachusetts Department of Environmental Protection
Southeast Regional Office
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Prepared by:

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1.0 INTRODUCTION

SAGE Environmental, Inc. (*SAGE*) prepared this Immediate Response Action (IRA) Status Report for the property located at 123 Williams Street in North Dighton, Massachusetts (Site) (**Figure 1**). Specifically, it summarizes Site data obtained by *SAGE* during IRA activities conducted since September 16, 2001 to address a potential condition of Substantial Release Migration associated with polychlorinated biphenyls (PCBs) and extractable petroleum hydrocarbons (EPHs) migrating towards a Zone A aquifer recharge area.

Information regarding the regulatory history of this Release Tracking Number and parties undertaking response actions is summarized below:

Release Notification Date:	September 16, 2001
Release Tracking Number:	4-16565
IRA Plan Submittal:	October 31, 2001
Site Owner/Operator:	American Auto Auction 123 Williams Street North Dighton, MA 02764
Licensed Site Professional:	Matthew Hackman, LSP No. 9456 *SAGE* Environmental, Inc. 172 Armistice Boulevard Pawtucket, RI 02860
Other RTNs pertaining to the property:	None

2.0 BACKGROUND

A fire that began Saturday night, September 15, 2001, destroyed a three-story building known as the Taunton Expo – a large flea market for approximately 250 vendors. *SAGE* arrived on Site Sunday, September 16, 2001, at approximately 12:00 p.m. after a call from property representative Charles Pollina to assist with Massachusetts Contingency Plan (MCP), Licensed Site Professional (LSP), and Emergency Response Oversight services. Within the burned building were electrical transformers, voltage regulators, and switchgear containing dielectric fluids ("transformer oils"). For convenience, this equipment will hereafter be referred to as "transformers". Field testing of transformer oils by representatives of the Massachusetts Department of Environmental Protection (MADEP) suggested that some of the oils contained greater than 50 parts per million (ppm) of PCBs.

Subsequent laboratory analysis confirmed that one of these oils had PCB concentrations of over 95% PCBs. All known transformers and electrical equipment were emptied of their remaining contents into segregated 55-gallon drums. All of the transformers and electrical units were secured by wrapping them in 6-mil polyethylene plastic in anticipation of eventual disposal.

Based on available equipment labels and volume approximation, it is *SAGE*'s opinion that approximately 600 gallons of dielectric fluid was associated with this equipment. Approximately 100 gallons of oil was recovered. Assuming all units were initially full, approximately 500 gallons of oil appear to have been released from these units to the environment. The oil appears to have been transported by way of a large volume of water that was applied to the building for fire suppression purposes. It appears that the oil was released during the fire as a result of the building collapsing on these units and / or their being grabbed by an excavator-mounted grappling arm. Additionally, it appears that the oil was transported via storm water running across the parking lot and into drainage culverts and swales, which discharge into a constructed drainage swale or ditch (shown as an intermittent stream on the United States Geological Survey quadrangle map) east of the parking lot. This constructed swale or ditch discharges to wetlands located approximately 3/4 of a mile south.

SAGE personnel followed the constructed swale or drainage ditch for approximately 3/4 of a mile. There appeared to be an approximate 1,000-foot stretch of swale or ditch bottom that is visibly impacted with a probable mix of oil from the transformers, ash from the fire, and possibly, regular parking lot runoff. This visible impact has a black and greasy appearance that looks to extend approximately one to two inches into the streambed. Laboratory results of this visibly impacted soil revealed PCBs of less than 1 parts per million (ppm) for all but one sample. A sediment sample collected at the farthest area of known separate phase extent exhibited a total PCB concentration of approximately 11.8 ppm. PCB content in water from the stream has ranged from non-detect (< 0.30 part per billion (ppb)) to 15 ppb.

Beginning on September 16, 2001, separate phase oil was contained with oil absorbent pads and booms in the stream and drainage swale. Oil saturated pads and booms were changed out and replaced on September 18, 2001 and November 16, 2001. Fresh booms are currently in place within the stream at four locations, with three booms located upstream in upstream areas and one boom located downstream at the Tremont Street culvert.

Based on a Site meeting on September 20, 2001 with MADEP and U.S. EPA representatives, the PCB soil/sediment objective for the Site was determined to be 1.0 ppm or less, and the groundwater objective is 0.5 ppb. Verbal approval was granted to

remove the top two inches of sediment and/or obvious transformer oil stained soils from the constructed drainage channel and associated feeder swales.

Beginning on October 2, 2001 and continuing through November 16, 2001, the top two inches of sediment were excavated from the drainage channel, banks, and associated feeder swales by Frank Corporation of New Bedford, Massachusetts. Excavation was performed primarily by hand using shovels and buckets. A backhoe with blade and/or a Bobcat™ with front bucket was used where the channel areas were accessible. Material was stored temporarily on Site in 20-yard steel rolloffs. Confirmatory samples were collected at approximate 50-foot intervals from the center of each excavated channel or swale. Sample locations were marked with stakes which were located using the global positioning system (GPS). These samples were submitted to a Massachusetts-certified laboratory for analyses of PCBs via EPA Method 8082. Additionally, background sediment samples for EPH analysis were collected from twelve locations in adjacent drainage channels, which were not impacted by runoff from the fire. Post-excavation sediment samples for EPH analysis were collected from eight channel locations, which were previously sampled in September 2001, prior to excavation. The results of these sampling activities are discussed in **Section 4.0** of this report.

3.0 IMMEDIATE RESPONSE ACTION OBJECTIVES

The primary objective of the IRA was, to the extent feasible, to reduce total PCB concentrations in sediment/soil to less than 1.0 ppm, and to remove source material to maintain total PCB concentrations in water less than 0.5 ppb.

The IRA Plan proposed the following activities and goals:

- Mitigation of short-term contaminant migration by continued monitoring and replacement of absorbents and booms around the source area and in the streambed;
- Further evaluation of both the upgradient (source area) and downgradient, vertical and horizontal extent of PCB contamination in soils and surface water;
- Additional, periodic surface water sampling;
- Removal of impacted media;
- Address long-term response action goals by developing a monitoring schedule and ultimately pursue a Condition of No Significant Risk. Based on the sensitive nature of the wetlands ecosystem, it does not appear that remediation to "background" is a feasible option, as this would require more invasive remediation that would create greater damage to the wetlands ecosystem.

4.0 IRA INVESTIGATIONS

4.1 Transformer Oil and Separate Phase Oil Sampling

Oil recovered from six transformers and three samples of separate phase oil collected from the stream were analyzed for PCBs via EPA Method 8082. Analytical results for the PCB analyses are summarized in the following tables. Chain-of-Custody forms and Certificates of Analysis are included in **Appendix 1**.

Table 1
Transformer Oil Analytical Results
123 Williams Street
North Dighton, Massachusetts

Sample / Date	Concentration					
	T-2	T-3	T-4	T-1B	T-5	T-6
Analyte	9/17/2001	9/17/2001	9/17/2001	9/18/2001 and 11/27/01	9/18/2001	9/18/2001
PCBs by 8082 (mg/kg):						
Aroclor 1016	<2	<10	<9900	<40000	<2	<2
Aroclor 1221	<2	<10	<9900	<40000	<2	<2
Aroclor 1232	<2	<10	<9900	<40000	<2	<2
Aroclor 1242	<2	<10	<9900	>95% >100%	91	<2
Aroclor 1248	<2	<10	<9900	<40000	<2	<2
Aroclor 1254	**13**	**360**	**480**	<40000	<2	**3900**
Aroclor 1260	<2	<10	<9900	<40000	<2	<2
Total PCB	**13**	**360**	**480**	>95% >100%	91	**3900**

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Table 2
Separate Phase Oil Analytical Results*
123 Williams Street
North Dighton, Massachusetts

Sample / Date	Concentration		
	OW-1	OW-2	OW-3
Analyte	9/17/2001	9/17/2001	9/17/2001
PCBs by 8082 (mg/kg):			
Aroclor 1016	<2	<9900	<9800
Aroclor 1221	<2	<9900	<9800
Aroclor 1232	<2	<9900	<9800
Aroclor 1242	<2	<9900	<9800
Aroclor 1248	<2	<9900	<9800
Aroclor 1254	**83**	**92**	**88**
Aroclor 1260	<2	<9900	<9800
Total PCB	**83**	**92**	**88**

* See Figure 2 for sample locations

4.2 Pre Excavation Sediment Sampling

During September 17 through September 20, 2001, *SAGE* collected twenty-seven (27) pre-excavation sediment/soil samples from the swales, stream channels and along the pavement perimeter, which was impacted by fire runoff. These samples were submitted to a Massachusetts-certified laboratory for analyses of PCBs via EPA Method 8082. Eight (8) of these samples were additionally analyzed for EPH using MADEP Methods. For comparison purposes, on November 2 and November 5, 2001, background sediment samples for EPH analysis were collected from twelve (12) locations in drainage channels on the property which were not impacted by runoff from the fire.

Chain-of-Custody forms and Certificates of Analysis are included in **Appendices 2 and 4**. PCB data is summarized on **Figure 2**. EPH data for the C11-C22 aromatic fraction is summarized on **Figure 4**. Laboratory results are summarized on the following **Tables 3** through **6**.

With consideration to the above data, PCB impact to sediment appeared to be greatest in the downstream areas of the constructed drainage channel. Both Arochlor 1254 and Arochlor 1242 isomers were observed. EPH concentrations in the streambed sediments are in excess of MADEP Method 1 soil standards, with C11-C22 aromatics being the most persistent and elevated fraction. EPH concentrations in background sediment samples are also elevated, indicating that EPHs in the streambed sediments may be more the result of historic parking lot runoff rather than the release in question.

4.3 Post Excavation Sediment Sampling

Following excavation of the top two inches of sediment from the drainage channels and swales, confirmatory samples were collected at approximate 50-foot intervals. Samples were additionally collected at 50-foot intervals in the channel extending approximately 200 feet downstream of the terminus of sediment excavation. Samples were collected from the center of each channel using a Teflon trowel, which was decontaminated prior to use. A total of approximately seventy-nine (79) samples were collected. Samples were submitted to a Massachusetts-certified laboratory for the analysis of PCBs via EPA Method 8082. In addition, post-excavation sediment samples for EPH analysis were collected from the above-referenced eight (8) channel locations, which were previously sampled in September, prior to excavation.

Chain-of-Custody forms and Certificates of Analysis are included in **Appendices 3** and **5**. Post excavation PCB data is summarized on **Figure 3**. Post excavation EPH data for the C11-C22 aromatic fraction is summarized on **Figure 5**. Laboratory results are summarized on the following **Tables 7** and **8**.

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Table 7
Post-excavation Sediment Samples
PCB Analytical Results
Samples Collected October-November, 2001

Sample Location (Depth in feet)	PCB Concentration (ug/kg)						
	Arochlor 1221	Aroclor 1232	Arochlor 1016/1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	Total PCBs
0-50	ND	ND	ND	ND	ND	ND	ND
50-100	ND	ND	ND	ND	ND	ND	ND
100-150	ND	ND	ND	ND	ND	ND	ND
150-200	ND	ND	ND	ND	ND	ND	ND
200-250	ND	ND	ND	ND	ND	ND	ND
250-300	ND	ND	ND	ND	ND	ND	ND
300-350	ND	ND	ND	ND	ND	ND	ND
350-400	ND	ND	ND	ND	ND	ND	ND
400-450	ND	ND	ND	ND	ND	ND	ND
450-500	ND	ND	ND	ND	ND	ND	ND
500-550	ND	ND	ND	ND	ND	ND	ND
550-600	ND	ND	ND	ND	ND	ND	ND
600-650	ND	ND	ND	ND	ND	ND	ND
650-700	ND	ND	ND	ND	ND	ND	ND
700-750	ND	ND	ND	ND	ND	ND	ND
750-800	ND	ND	ND	ND	ND	ND	ND
800-850	ND	ND	ND	ND	ND	ND	ND
850-900	ND	ND	ND	ND	ND	ND	ND
900-950	ND	ND	ND	ND	ND	ND	ND
950-1000	ND	ND	ND	ND	ND	ND	ND
1000-1050	ND	ND	ND	ND	ND	ND	ND
1050-1100	ND	ND	ND	ND	ND	ND	ND
1100-1150	ND	ND	ND	ND	**61**	ND	**61**
1150-1200	ND	ND	ND	ND	ND	ND	ND
1200-1250	ND	ND	ND	ND	ND	ND	ND
1250-1300	ND	ND	ND	ND	**136**	ND	**136**
1300-1350	ND	ND	ND	ND	**91.5**	ND	**91.5**
1350-1400	ND	ND	ND	ND	ND	ND	ND
1400-1450	ND	ND	ND	ND	ND	ND	ND
1450-1500	ND	ND	ND	ND	ND	ND	ND
1500-1550	ND	ND	ND	ND	ND	ND	ND
1550-1600	ND	ND	ND	ND	ND	ND	ND
1600-1650	ND	ND	ND	ND	ND	ND	ND
1650-1700	ND	ND	ND	ND	ND	ND	ND
1700-1750	ND	ND	ND	ND	ND	ND	ND
1750-1800	ND	ND	ND	ND	ND	ND	ND
1800-1850	NS	NS	NS	NS	NS	NS	NS
1850-1900	ND	ND	ND	ND	ND	ND	ND
1900-1950	ND	ND	ND	ND	ND	ND	ND
1950-2000	ND	ND	ND	ND	ND	ND	ND
2000-2050	ND	ND	ND	ND	ND	ND	ND
2050-2100	ND	ND	ND	ND	ND	ND	ND
2100-2150	ND	ND	ND	ND	**62**	ND	**62**
2150-2200	ND	ND	ND	ND	ND	ND	ND
2200-2250	ND	ND	ND	ND	ND	ND	ND
2250-2300	ND	ND	ND	ND	ND	ND	ND
2300-2350	ND	ND	ND	ND	ND	ND	ND
2350-2400	ND	ND	ND	ND	ND	ND	ND
2400-2450	ND	ND	ND	ND	ND	ND	ND
2450-2500	ND	ND	ND	ND	ND	ND	ND
2500-2550	ND	ND	ND	ND	ND	ND	ND
2550-2600	ND	ND	ND	ND	ND	ND	ND
2600-2650	ND	ND	ND	ND	ND	ND	ND
2650-2700	ND	ND	ND	ND	ND	ND	ND
2700-2750	ND	ND	ND	ND	ND	ND	ND
2750-2800	ND	ND	ND	ND	ND	ND	ND
2800-2850	ND	ND	ND	ND	ND	ND	ND
2850-2900	ND	ND	ND	ND	ND	ND	ND
2900-2950	ND	ND	ND	ND	ND	ND	ND
2950-3000	ND	ND	ND	ND	ND	ND	ND
3000-3050	ND	ND	**250**	ND	ND	ND	**250**
3050-3100	ND	ND	ND	ND	ND	ND	ND
3100-3150	ND	ND	ND	ND	ND	ND	ND
3150-3200	ND	ND	ND	ND	ND	ND	ND
3200-3250	ND	ND	ND	ND	**79.6**	ND	**79.6**
3250-3300	ND	ND	ND	ND	ND	ND	ND
3300-3350	ND	ND	ND	ND	ND	ND	ND
3350-3400	ND	ND	ND	ND	ND	ND	ND
3400-3450	ND	ND	ND	ND	ND	ND	ND
3450-3500	ND	ND	ND	ND	ND	ND	ND
3500-3550	ND	ND	ND	ND	ND	ND	ND
3550-3600	ND	ND	ND	ND	ND	ND	ND
3600-3650	ND	ND	**510**	ND	ND	ND	**510**
SP-50	ND	ND	ND	ND	ND	ND	ND
SP-100	ND	ND	ND	ND	ND	ND	ND
SP-150	ND	ND	ND	ND	ND	ND	ND
SP-200	ND	ND	ND	ND	ND	ND	ND
PE SF-4 (3200)	ND	ND	ND	ND	ND	ND	ND
PE SF-1 (3675)	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected - Below Analytical Detection Limit (0.50 ug/kg or less)
NS = Not Sampled

Table 8
Post-excavation Sediment / Soil Analytical Results – C11-C22 Aromatics
123 Williams Street
North Dighton, Massachusetts

Sample / (Depth) / Date	Concentration								MADEP Method 1 Standard		MADEP Method 3 Soil UCL
	PE-NSW-1	PE-MSW-1	PE-SSW-1	PE-SP-6A	PE-SP-7	PE-SP-8	PE-SP-9	PE-SP-10			
Analyte	11/14/2001	11/14/2001	11/14/2001	11/14/2001	11/14/2001	11/14/2001	11/14/2001	11/14/2001	S-1 / GW-1 Soil	S-1 / GW-3 Soil	
Extractable Petroleum Hydrocarbon (EPH) (ug/kg):											
C9-C18 Aliphatics	<12000	25000	<13000	<14000	<13000	<13000	<13000	<13000	1000000	1000000	20000000
C19-C36 Aliphatics	33000	64000	24000	18000	<13000	<13000	<13000	<13000	2500000	2500000	20000000
C11-C22 Aromatics	100000	**330000[a]**	94000	62000	36000	51000	44000	40000	200000	800000	10000000
Acenaphthene	<120	270	<130	<140	<130	<130	<130	<130	20000	1000000	10000000
Acenaphthylene	<120	210	<130	<140	<130	<130	<130	<130	100000	100000	10000000
Anthracene	<120	740	340	220	<130	<130	<130	<130	1000000	1000000	10000000
Benzo[a]anthracene	300	**2600[rac]**	**1600[rac]**	**1000[rac]**	290	360	430	320	700	700	100000
Benzo[a]pyrene	350	**2400[rac]**	**1300[rac]**	**800[rac]**	240	320	370	260	700	700	100000
Benzo[b]fluoranthene	440	**2800[rac]**	**1400[rac]**	**1000[rac]**	270	380	430	260	700	700	100000
Benzo[g,h,i]perylene	240	620	340	210	<130	<130	<130	<130	1000000	1000000	10000000
Benzo[k]fluoranthene	350	2300	1400	700	220	320	380	320	7000	7000	400000
Chrysene	460	3200	1800	1200	340	470	520	400	7000	7000	400000
Dibenz[a,h]anthracene	<120	370	220	<140	<130	<130	<130	<130	700	700	100000
Fluoranthene	810	5600	2800	2000	650	1000	1000	820	1000000	1000000	10000000
Fluorene	<120	380	<130	<140	<130	<130	<130	<130	400000	1000000	10000000
Indeno[1,2,3-cd]pyrene	240	**770[rac]**	440	270	<130	<130	<130	<130	700	700	100000
Phenanthrene	400	3200	1200	1100	270	460	430	370	700000	100000	10000000
Pyrene	660	4500	2300	1700	580	820	840	650	700000	700000	10000000
PCBs by 8082 (ug/L):	NA	NA	NA	NA	NA	NA	NA	NA			

Where necessary, the MADEP standards have been converted from ppm to ppb, or vice-versa, to match the laboratory reporting method.

NA: Analysis not performed
ND: No analytes detected above quantitation limits
<x: Indicates analyte concentration not detected at or above specified laboratory quantitation limit (x)

Sample Results:
a-c: Analyte concentration in this sample exceeds the MADEP standard for:
a: S1/GW1 type soil
c: S1/GW3 type soil
r: Database information indicates analyte concetration exceeds an RC, and as such may constitute an additional Site reporting requirement

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With consideration to the above data, only seven (7) of seventy-nine confirmatory sediment samples had detected concentrations of PCBs. All detected PCB concentrations are significantly below the IRA objective of 1.0 ppm. No PCBs were detected in sediment samples collected within the channel section extending 200 feet downstream from the terminus of excavation activities. With regard to the eight EPH confirmatory samples, the laboratory results indicate an overall fourfold to tenfold decrease in C11-C22 aromatic concentrations after sediment excavation. However one sample, MSW-1, located within a feeder swale at the north end of the site, has a C11-C22 aromatic concentration which is slightly elevated (330 ppm) relative to the highest nearby background concentration (320 ppm).

4.4 Surface Water and Runoff Sampling

Stream and surface runoff samples were collected in the period from September 19 through September 26, 2001. Samples were collected using a Teflon pond ladle. Samples were submitted to a Massachusetts-certified laboratory for the analysis of PCBs via EPA Method 8082. One sample from the garage basement was additionally analyzed for semivolatiles via EPA Method 8270. Chain-of Custody forms and Certificates of analysis are included in **Appendix 6**. Data is summarized on **Figure 6**. Laboratory results are summarized as follows in **Table 9**.

Table 9
Pre-excavation Surface Water / Storm Water Analytical Results
123 Williams Street
North Dighton, Massachusetts

Sample / Date	Concentration										MADEP Method 1 Groundwater Standard		MADEP Method 3 Groundwater UCL
	Garage	WS-1	BR-1	BR-2	Electric Manhole	NW Fence Cnr runoff	Exterior 2nd Hay bales	D-grad P-lot fence line	Fence Corner	Tremont Culvert	GW-1	GW-3	
Analyte	9/19/2001	9/17/2001	9/19/2001	9/19/2001	9/19/2001	9/25/2001	9/25/2001	9/25/2001	9/25/2001	9/26/2001			
PCBs by 8082 (ug/L):													
Aroclor 1016	*<0.4*[sf]	*<0.6*[sdf]	*<0.4*[sf]	*<0.41*[sf]	*<40*[sdfv]	<0.3	<0.3	<0.3	<0.3	<0.3			
Aroclor 1221	*<0.4*[sf]	*<0.6*[sdf]	*<0.4*[sf]	*<0.41*[sf]	*<40*[sdfv]	<0.3	<0.3	<0.3	<0.3	<0.3			
Aroclor 1232	*<0.4*[sf]	*<0.6*[sdf]	*<0.4*[sf]	*<0.41*[sf]	*<40*[sdfv]	<0.3	<0.3	<0.3	<0.3	<0.3			
Aroclor 1242	**11**[racu]	*<0.6*[sdf]	*<0.4*[sf]	*<0.41*[sf]	*<40*[sdfv]	**24.5**[racu]	<0.3	<0.3	<0.3	<0.3			
Aroclor 1248	*<0.4*[sf]	*<0.6*[sdf]	*<0.4*[sf]	*<0.41*[sf]	*<40*[sdfv]	<0.3	<0.3	<0.3	<0.3	<0.3			
Aroclor 1254	**5**[rac]	*<0.6*[sdf]	**15**[racu]	**4.8**[rac]	**420**[racu]	<0.3	<0.3	<0.3	<0.3	<0.3			
Aroclor 1260	*<0.4*[sf]	*<0.6*[sdf]	*<0.4*[sf]	*<0.41*[sf]	*<40*[sdfv]	<0.3	<0.3	<0.3	<0.3	<0.3			
Total PCB	**16**[racu]	*<0.6*[sdf]	**15**[racu]	**4.8**[rac]	**420**[racu]	**24.5**[racu]	<0.3	<0.3	<0.3	<0.3	0.5	0.3	5
Semivolatiles by GC/MS by 8270 (SIMS) (ug/L):	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Acenaphthene	2.6										20	5000	50000
Acenaphthylene	23										300	3000	30000
Anthracene	5.9										2000	3000	30000
Benzo[a]anthracene	**3.2**[ra]										1	3000	30000
Benzo[a]pyrene	**3.6**[ra]										0.2	3000	30000
Benzo[b]fluoranthene	**2.4**[ra]										1	3000	30000
Benzo[g,h,i]perylene	3.6										300	3000	30000
Benzo[k]fluoranthene	**2.3**[ra]										1	3000	30000
Chrysene	**3.3**[ra]										2	3000	30000
Dibenz[a,h]anthracene	**0.78**[ra]										0.5	3000	30000
Fluoranthene	10										300	200	3000
Fluorene	9										300	3000	30000
Indeno[1,2,3-cd]pyrene	**2.6**[ra]										0.5	3000	30000
2-Methylnaphthalene	**14**[ra]										10	3000	100000
Naphthalene	**33**[ra]										20	6000	60000
Phenanthrene	23										300	50	3000
Pyrene	13										200	3000	30000

Where necessary, the MADEP standards have been converted from ppm to ppb, or vice-versa, to match the laboratory reporting method.

NA: Analysis not performed
<x: Indicates analyte concentration not detected at or above specified laboratory quantitation limit (x)
Sample Results:
a-c: Analyte concentration in this sample exceeds the MADEP standard for:
a: GW1 type groundwater
c: GW3 type groundwater
d-f: Although the analyte was not detected, the laboratory quantitation limit for this sample exceeds the MADEP standard for:
d: GW1 type groundwater
f: GW3 type groundwater
r: Database information indicates analyte concentration exceeds an RC, and as such may constitute an additional Site reporting requirement
s: Although the analyte was not detected, the laboratory quantitation limit for the sample exceeds a MADEP Reportable Concentration
u: Analyte concentration in this sample exceeds the MADEP Upper Concentration Limit
v: Although the analyte was not detected, the laboratory quantitation limit for the sample exceeds the MADEP Upper Concentration Limit

ED_002022B_00026515-00013

With consideration to the above data, PCBs in excess of the IRA water objective (0.5 ppb) were noted in water samples collected from the stream channel in downstream areas; within runoff water which accumulated in the Expo garage basement; within runoff water within an electric manhole on the north side of the Expo building; and, in pavement runoff collected at the northwest side of the Expo building. A PCB concentration of 4.8 ppb was noted at the Tremont Street culvert on September 19, 2001 but this concentration decreased to below the analytical detection limit (0.3 ppb) as observed in a later sample collected on September 26, 2001. Additional stream sampling was conducted weekly at the Tremont Street culvert during the months of October and November while sediment excavation activities in the stream channel were being performed. Laboratory results for these eight (8) samples indicated no concentrations of PCBs above the analytical detection limit (0.3 ppb). Chain-of-Custody forms and Certificates of Analysis for the additional Tremont Street analyses are attached to the post excavation sediment analyses included in **Appendix 3**.

4.5 Additional IRA Activities

Additional activities conducted during the IRA are summarized as follows:

- An abandoned pole transformer was discovered on the ground at the north side of the property. A sample of dielectric fluid from this transformer was collected and analyzed for PCBs. Analytical results indicated the PCB content of the fluid to be 4.75 ppm. This transformer (T-8) and its contents were removed and appropriately disposed. The laboratory analytical report is included in **Appendix 1**, and the disposal manifest is included in **Appendix 7**.

- All personal protective equipment (PPE) waste generated from IRA activities was drummed and appropriately disposed.

- Contaminated debris including oil-contaminated logs, spent silt fencing and stakes, hay bales, etc. was containerized and appropriately disposed.

5.0 MANAGEMENT OF REMEDIATION WASTE

As of January 4, 2002, a total of approximately twenty (20) tons of remediation waste generated under the IRA has been transported and disposed. These wastes include non-DOT regulated transformer oils, PCB transformer oils, PCB solid wastes and mixtures, PCB transformers, and non-PCB transformers/switchgear. Disposal manifests for these materials are included in **Appendix 7**.

Approximately one hundred (100) tons of PCB-contaminated sediment and debris was excavated from the stream channels and was contained on Site in four 20-yard steel rolloffs. This material is expected to be transported to the CWM Model City facility for disposal before the end of January 2002. Disposal manifests and other documentation will be provided in the next IRA Status report.

6.0 PLANNED IRA ACTIVITIES/

To further evaluate and mitigate Site conditions and address remaining MCP issues, *SAGE* proposes the following additional IRA activities for the Site pursuant to the MCP Response Action Performance Standards (310 CMR 40.0191 and 310 CMR 40.0422 (4)) and the MCP Risk Characterization Requirements (310 CMR 40.0900). The recommendations cited below have not yet been reviewed by the client or approved by their insurance carrier.

- A post-excavation confirmatory sediment sample will be collected at the 1850-foot mark within the stream channel. (This sample location was inadvertently omitted during the preliminary sampling). The sample will be analyzed for PCBs by a Massachusetts-certified laboratory. One confirmatory composite sediment sample will be collected from the downstream portion of the Site in the vicinity of location SP-1. This sample will be analyzed for EPH by a Massachusetts-certified laboratory using MADEP methods.

- To evaluate potential runoff impacts on soils west of the Expo building, three soil samples will be collected within the grass shoulder, which borders the asphalt pavement. These samples will be analyzed for PCBs by a Massachusetts-certified laboratory.

- To determine if residual PCB contamination remains within on-Site drainage structures, sediment and/or water samples will be collected from the sumps of two stormwater catch basins located within the area of runoff impact (**see Figure 6**). These samples will be analyzed for PCBs by a Massachusetts-certified laboratory.

- To evaluate potential groundwater impacts, one groundwater sample will be collected from an existing monitor well located within the area of runoff impact (**see Figure 6**). Two new monitor wells will be installed in the impacted wooded area east of the asphalt pavement. Groundwater samples will be collected and analyzed for PCBs by a Massachusetts-certified laboratory.

- Additional surface water samples will be collected from the stream at the Tremont Street culvert. To evaluate water quality relative to the chronic Ambient Water Criteria for PCBs (0.014 ug/L), the samples will be analyzed using the lowest achievable analytical detection limit.

- To reduce EPH levels to pre-spill background conditions, an additional two inches of sediment will be excavated from the drainage swale at location MSW-1. Following excavation, one confirmatory sample will be collected for EPH and PCB analyses.

- If needed, any remaining water within the Expo building basement and electric manhole will be pumped out and appropriately disposed.

- Research will be conducted to determine the facility's compliance status with regard to any applicable storm water discharge regulations.

- Pursuant to the requirements for a Method 3 Risk Characterization, a Stage I Environmental Screening Report will be completed following the completion of all remedial activities in areas of the Site which contain biota and/or wildlife habitats.

- Subsequent to completing the Stage I Environmental Screening, a Method 3 Risk Characterization will be conducted. The Method 3 Risk Characterization is required due to environmental impacts to sediment and surface water (310 CMR 40.0971).

7.0 SUMMARY OF FINDINGS

Based upon the information obtained from this IRA, it is the opinion of *SAGE* that additional Immediate Response Actions are required to address a potential condition of Substantial Release Migration associated with PCBs and EPHs migrating towards a Zone A aquifer recharge area. Because a condition of No Significant Risk has not been demonstrated, a Response Action Outcome cannot be achieved at this time.

8.0 LIMITATIONS

Data obtained from public agencies, site inspections, and data mapping sources was used in the characterization of this Site. The accuracy of the conclusions derived from the data is based solely on the accuracy of the data reported and or supplied. Should data be made available concerning the Site, which is not included in this report, it should be reported to *SAGE* Environmental, Inc. so that findings, conclusions and/or recommendations can be

altered and modified (if necessary). Events occurring on the Site after onsite inspections are beyond the scope of this report.

Any qualitative or quantitative information regarding the Site, which was not available to *SAGE* Environmental, Inc. at the time of this assessment, may result in a modification of the representations made in this report.

Under the terms of the agreement, no attempt was made to determine the compliance or regulatory status of present or former owners or operators of the Site with respect to federal, state, or municipal environmental or land use laws or regulations.

Due to the fact that geological and soil formations are inherently random, variable, and indeterminate (heterogeneous) in nature, the professional services and opinions provided by *SAGE* Environmental, Inc. under our agreement are not guaranteed to be a representation of complete Site conditions, which are variable and subject to change with time or the result of natural or man-made processes. Although our services are extensive, opinions, findings, and conclusions presented are limited to and by the data supplied, reported, and obtained. Additionally, this study did not include (unless specifically stated in the proposal) testing for radon, lead, asbestos, radioactivity, electromagnetic fields, or formaldehyde. *SAGE* Environmental, Inc. makes no expressed or implied representations, warranties, or guarantees regarding any changes in condition of the premises after the date of the onsite inspection(s).

SAGE Environmental, Inc. has retained a copy of this report. No deletions or additions are permitted without the written consent of *SAGE* Environmental, Inc. Data, maps, and figures contained within this report are not suitable for use in its present form, for any ongoing or pending litigation. Use of this report, in whole or in part, by parties other than those authorized by *SAGE* Environmental, Inc. is prohibited.

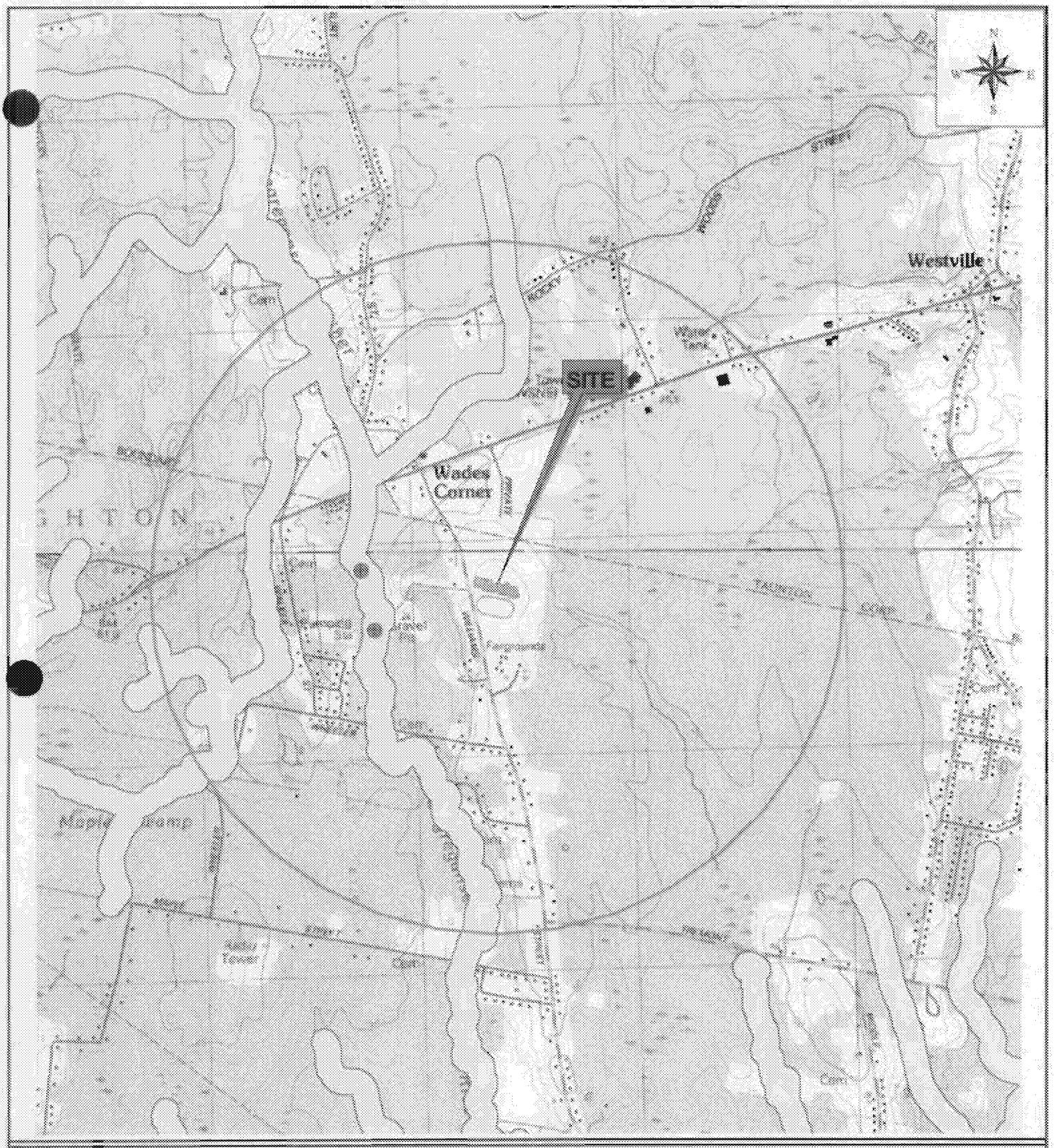

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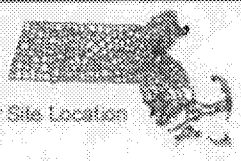
FIGURE 1

DEP Public Water Supply Wells
Zone A
1 Mile Radius



Site Location

USGS QUADRANGLE
SOMERSET/NORTON, MA

USGS Quadrangle Site Location Plan
American Auto Auction
123 Williams Street
North Dighton, Massachusetts

DATE:	01/02/02	SAGE JOB #:	R035
CREATED BY:	CMM		

0.2 0 0.2 0.4 0.6 0.8 1 1.2 Miles

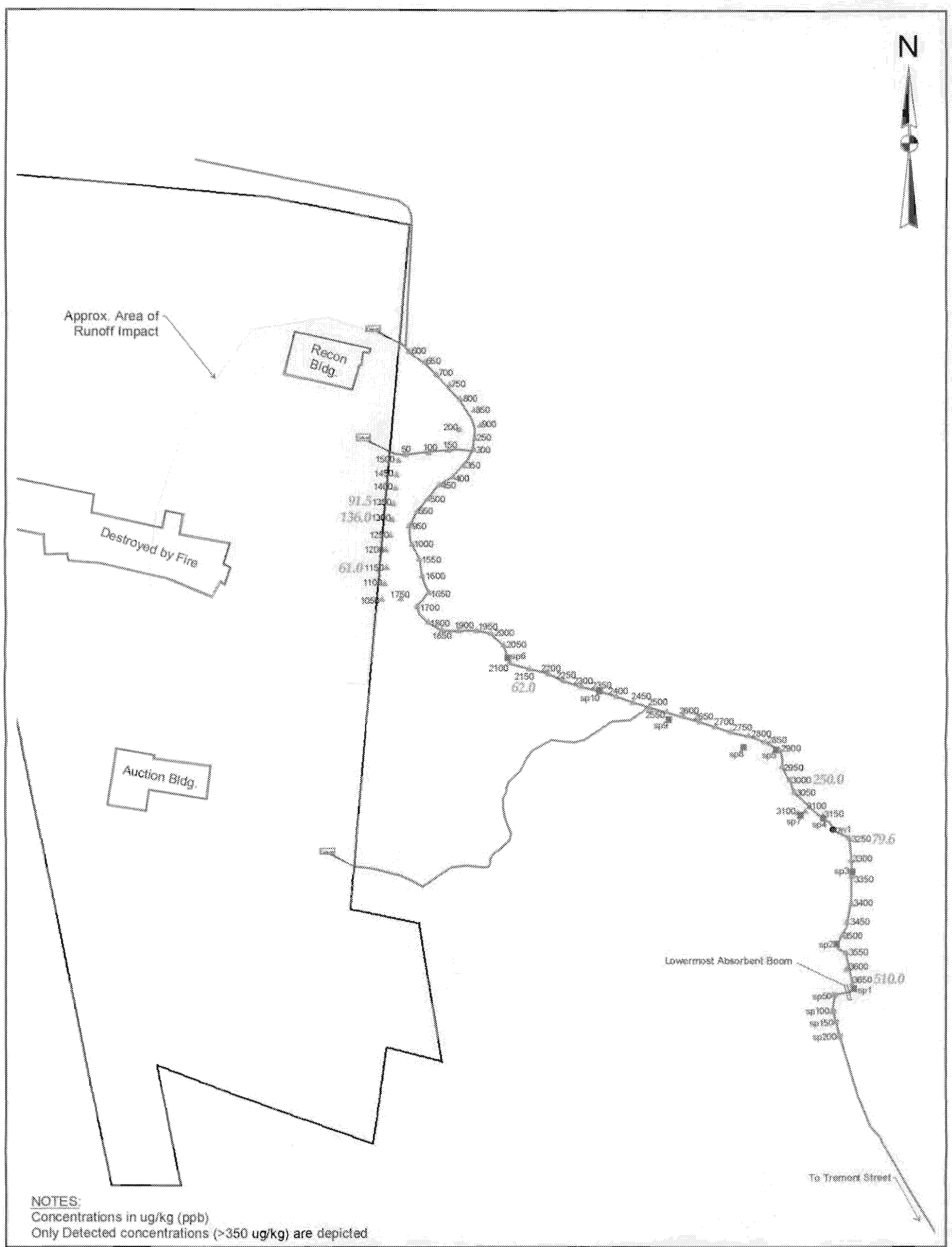


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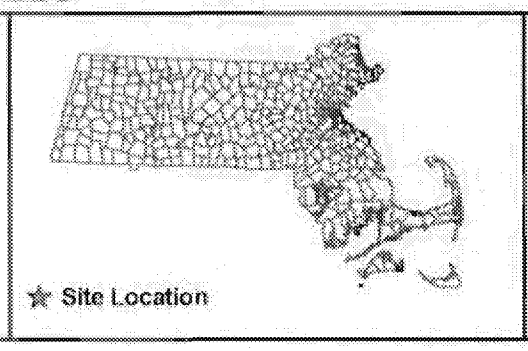
FIGURE 3

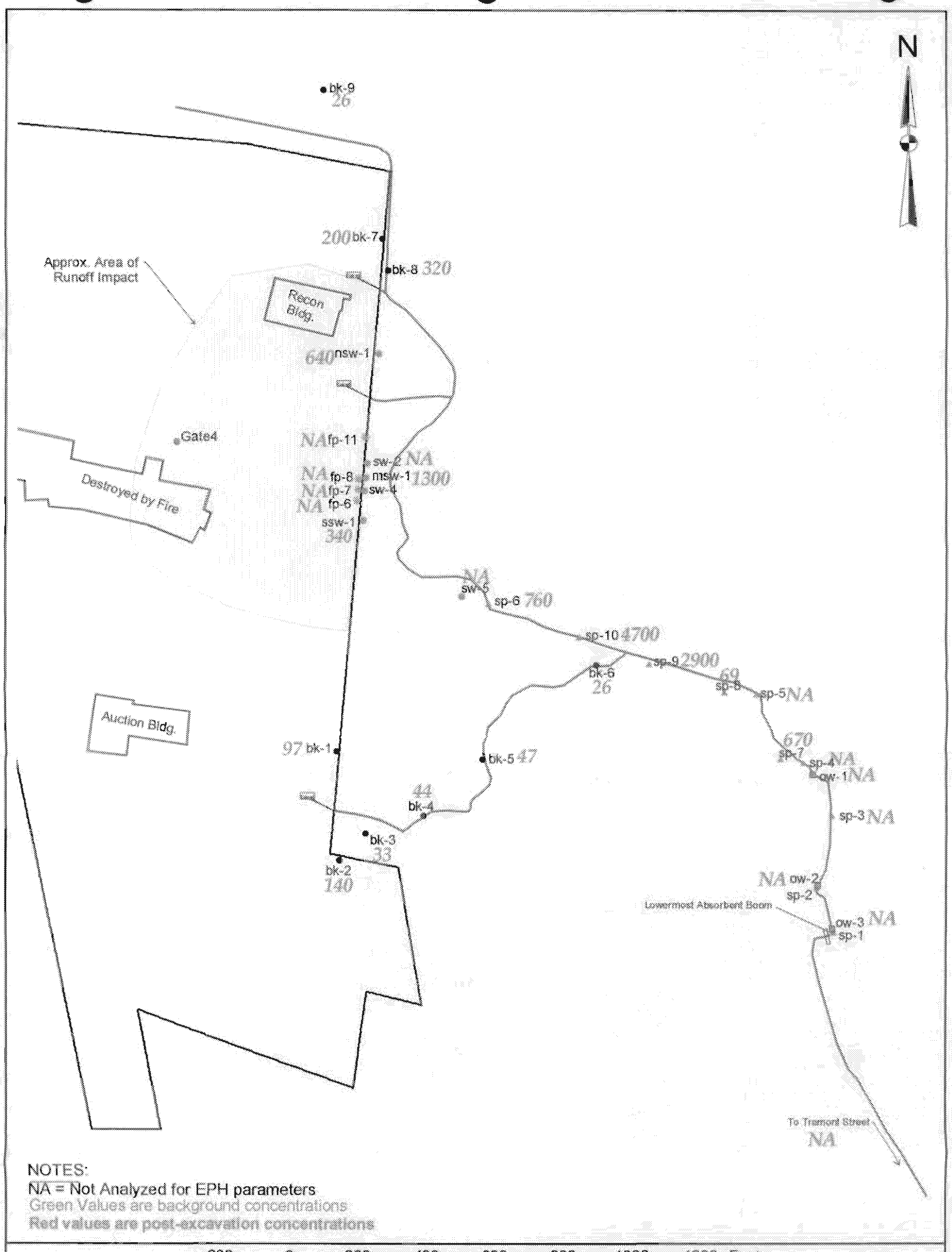
Sample Location Code
- ● ow (separate phase)
- ▲ ps (with channel footage)
- ■ sp
- ● sp
- Buildings
- Approximate Area of Runoff Impact
- Parking Lot
- Stream



Post-excavation Sediment/Soil Samples Total PCB's (ug/kg)

American Auto Auction
123 Williams Street
North Dighton, Massachusetts

DATE:	12/11/01	SAGE JOB #	R035
CREATED BY:	CMM		



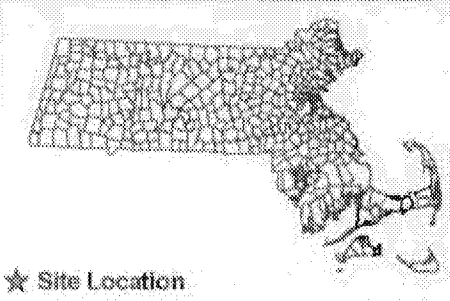
NOTES:
NA = Not Analyzed for EPH parameters
Green Values are background concentrations
Red values are post-excavation concentrations

200 0 200 400 600 800 1000 1200 Feet

SAGE Environmental, LLC

FIGURE 4

Sample Locations
- Gate
- bk (background)
- fp (Fence Post)
- ow (sed/soil)-free phase
- sp (sed/soil)
- sw (sed/soil)
- Buildings
- Approximate Area of Runoff Impact
- Parking Lot
- Stream



Pre-excavation Sediment/Soil Samples C11-C22 Aromatics (mg/kg)

American Auto Auction
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North Dighton, Massachusetts

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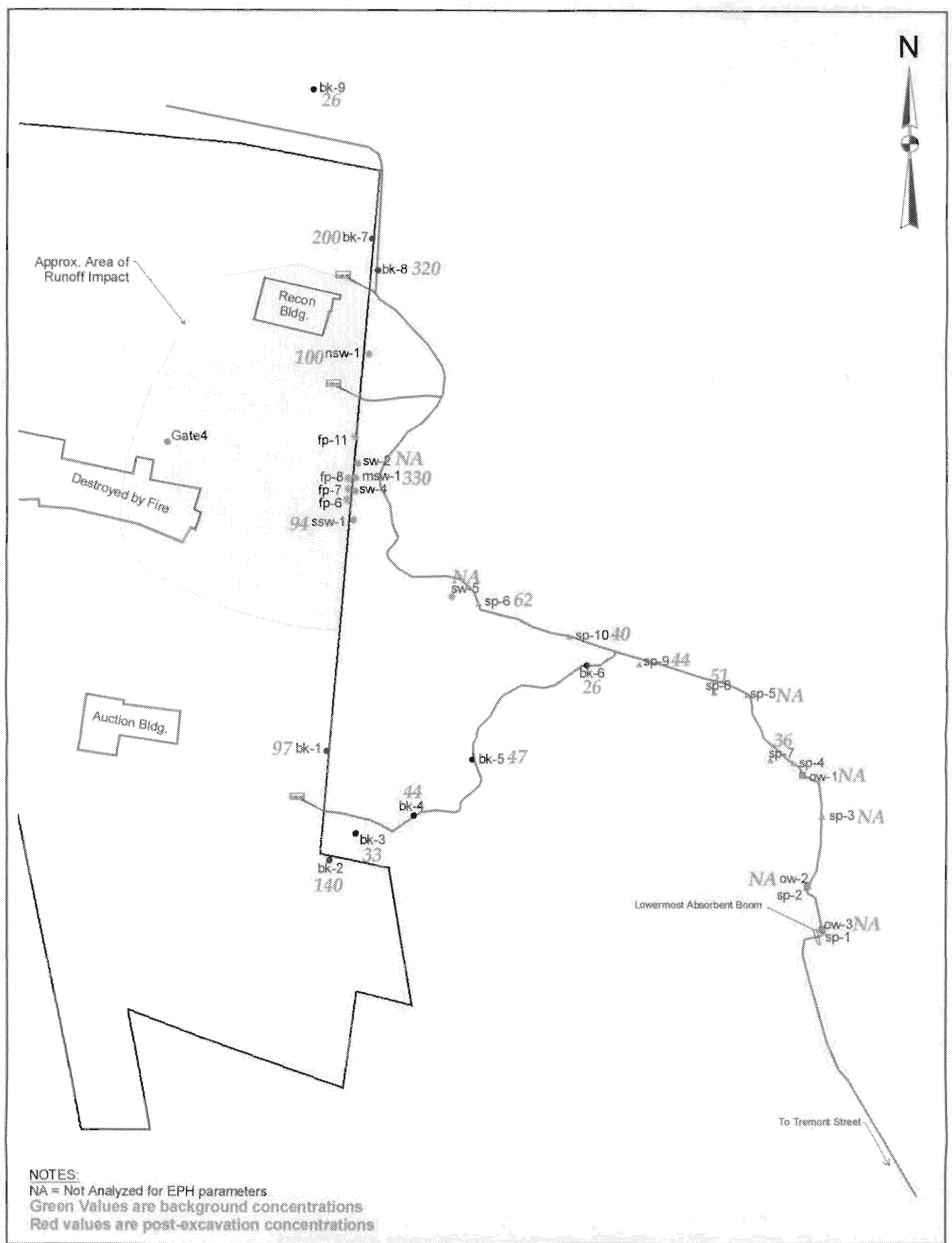


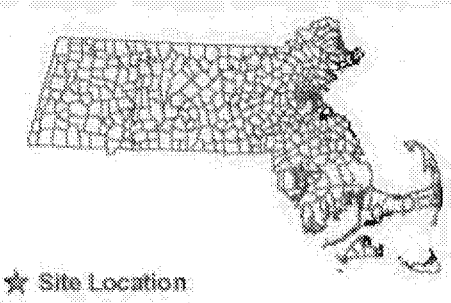
NOTES:
NA = Not Analyzed for EPH parameters
Green Values are background concentrations
Red values are post-excavation concentrations

200 0 200 400 600 800 1000 1200 Feet

SAGE Environmental, LLC

FIGURE 5

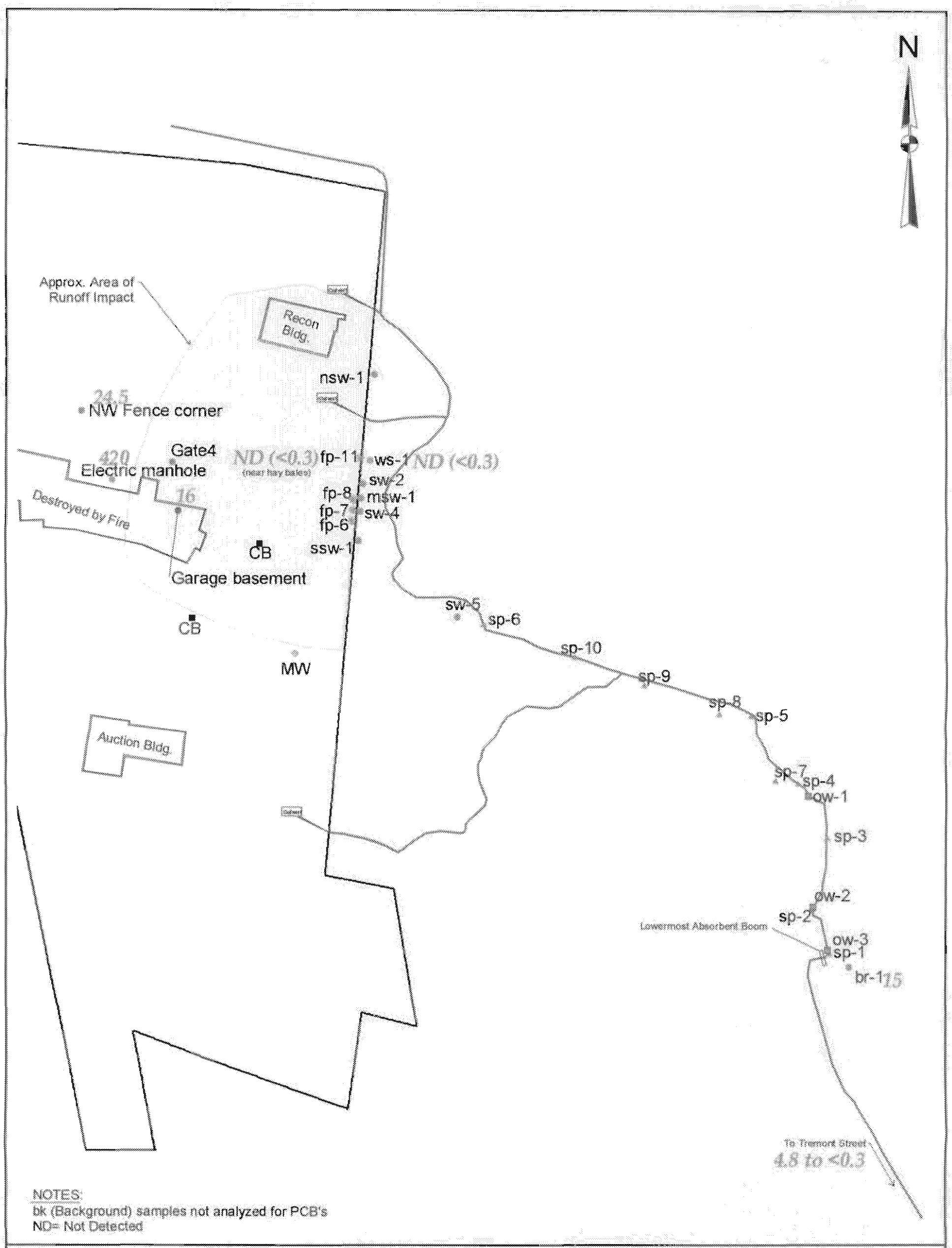
Sample Locations
- Gate
- bk (background)
- fp (Fence Post)
- ow (sed/soil)
- sp (sed/soil)
- sw (sed/soil)
- Buildings
- Approximate Area of Runoff Impact
- Parking Lot
- Stream



Post-excavation Sediment/Soil Samples C11-C22 Aromatics (mg/kg)

American Auto Auction
123 Williams Street
North Dighton, Massachusetts

DATE:	12/11/01	SAGE JOB #:	R035
CREATED BY:	CMM		



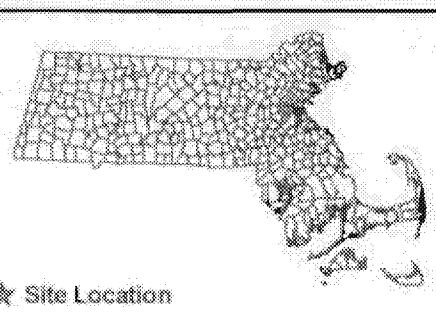
NOTES:
bk (Background) samples not analyzed for PCB's
ND= Not Detected

200 0 200 400 600 800 1000 1200 Feet

SAGE Environmental, LLC

FIGURE 6

Gate
fp (Fence Post)
sw (sediment)
ssw (sediment)
msw (sediment)
Catch Basin
Buildings
Parking
Stream
Electric Manhole
NW Fence Corner
Garage Basement
MW
BR
Monitor Well
Approx. Area of Runoff Impact



Pre-excavation Surface Water/Storm Water Runoff Total PCB's (ug/L)

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North Dighton, Massachusetts

DATE:	12/11/01	SAGE JOB #:	R035
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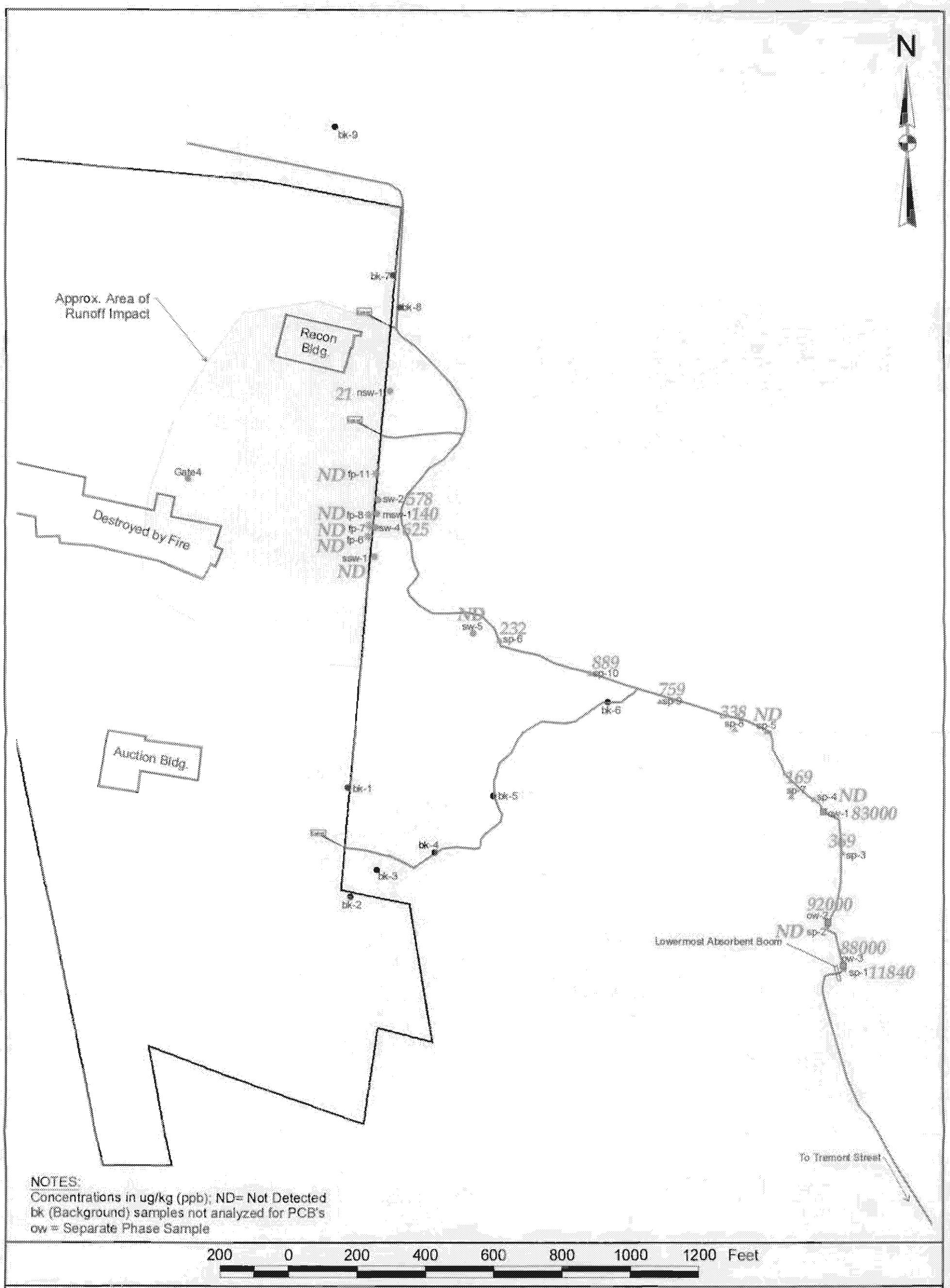


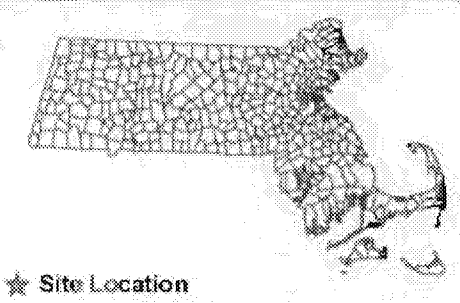
NOTES:
Concentrations in ug/kg (ppb); ND= Not Detected
bk (Background) samples not analyzed for PCB's
ow = Separate Phase Sample

200 0 200 400 600 800 1000 1200 Feet

SAGE Environmental, LLC

FIGURE 2

Sample Locations
- Gate
- bk (background)
- fp (Fence Post)
- ow (sediment)
- sp (sediment)
- sw (sediment)
- Buildings
- Approximate Area of Runoff Impact
- Parking Lot
- Stream



★ Site Location

Pre-excavation Sediment/Soil Samples Total PCB's (ug/kg)

American Auto Auction
123 Williams Street
North Dighton, Massachusetts

DATE:	12/11/01	SAGE JOB #:	R035
CREATED BY:	CMM		