



engineering and constructing a better tomorrow

January 16, 2007

Mr. Joseph T. Martella II, Senior Engineer
RIDEM Office of Waste Management
Site Remediation Program
235 Providence Street
Providence, RI 02908

**RE: Former Slag Pile Area Supplemental Removal Action Work Plan
Former Gorham Manufacturing Facility, Plat 51 – Lots 323, 324, and 326
333 Adelaide Avenue, Providence, Rhode Island
Case No. 97-030 (Including Case No. 2005-029 and Case No. 2005-059)
MACTEC Project No. 3650050041.02**

Dear Mr. Martella:

On behalf of Textron, Inc. (Textron), MACTEC Engineering and Consulting, Inc. (MACTEC) is submitting this Former Slag Pile Area Supplemental Removal Action Work Plan (Work Plan) for your review and approval. This Work Plan has been developed to address issues raised by the Rhode Island Department of Environmental Management (RIDEM) regarding the previously completed slag removal activities and incorporates results from our meeting on January 10, 2007. This Work Plan is generally in conformance with Section 9: Remedial Action Work Plans of the RIDEM Remediation Regulations DEM-DSR-01-93.

BACKGROUND

Between May 26, 2006 and July 18, 2006, an estimated 1,300 cubic yards of slag material from a former smelting operation was excavated at the above referenced Site. This work was performed to fulfill Requirement I Removal Actions of the Rhode Island Superior Court Consent Order (Park Parcel) dated March 29, 2006. Slag removal continued until visual observations indicated that the limits of the slag pile had been removed and confirmation sampling indicated that Site contaminants of concern did not exceed RIDEM Upper Concentration Limits (UCLs) in soil. This excavation extended beyond the slag pile into native soil and industrial fill material found on the Site (See Figure 1). A Slag Removal Summary Report that documented these actions was submitted to RIDEM on September 29th, 2006 in accordance with the March 2006 Consent Order.

RIDEM has requested that Textron continue the removal action to remove elevated concentrations of lead (below UCLs) and that Synthetic Precipitation Leaching Procedure (SPLP) analyses be conducted. This Work Plan has been prepared to document actions to be taken by Textron in response to our January 10, 2006 meeting with RIDEM.

SCOPE OF WORK

This Work Plan addresses the following activities: 1) Excavation and offsite disposal of soil from two areas within the footprint of the former slag pile that contain elevated residual lead concentrations, 2) Test pitting at three locations at the limits of the previously completed slag pile removal for visual inspection of slag material, and 3) Soil sampling at three representative locations at the limit of the slag pile excavation that exhibited elevated residual lead concentrations.

SITE PREPARATION ACTIVITIES

Health and Safety – The May 2006 Health and Safety Plan will be revised to incorporate comments received from RIDEM dated December 1, 2006.

Operating Log – See May 24, 2006 Slag Removal Work Plan.

Erosion Controls – Existing controls, installed for the initial slag pile removal activities, will remain in place (and/or be repaired as needed) in order to minimize runoff of soils during the excavation activities. The existing controls include a hay bail/silt fence barrier around the work area, extending from the chain link fence down the slope towards Mashapaug Cove. Upon completion of the supplemental slag removal activities, the erosion control measures around the former slag pile will remain in place until the surface soil has been stabilized. A boom and silt curtain has been maintained and will remain positioned in Mashapaug Cove through the completion of the slag removal and site restoration activities.

Removal of Existing Stone Backfill – The existing stone backfill, to be used to fill areas of the excavation below the water table, is currently staged on the southern edge of the former slag pile area. To allow access to areas of elevated lead concentrations, this material will be moved to the upland area near the chain link fence west of the former slag pile excavation (See Figure 1).

Temporary Access Road Grading and Loading Pad – The City of Providence constructed a new access road from Parcel A into Parcel D, separated from the school site. The City is currently scheduling the installation of a locking gate at the top of this road and fence to restrict public access to Parcel D. MACTEC will retain the existing chain-link fence immediately above the excavation area and will secure the fence and gates at the completion of this work. Site soil and/or existing stone fill will be used to construct a new loading pad for excavation equipment and trucks transporting the soil off site for disposal. The gate and access road will remain pending construction of the soil remedy for Parcel D soils under the ongoing Site Investigation process.

EXCAVATION AND TEST PITS ACTIVITIES

Figure 1 shows the general area of work discussed in this Work Plan. Within the footprint of the former slag pile, confirmation sampling has indicated lead concentrations in soil range from 9.5 mg/kg to 5,580 mg/kg (See Table 1). As discussed at the October 4, 2006 and January 10, 2007 meetings with RIDEM, soils in the vicinity of sample locations SS-SI51S100 (5,580 mg/kg lead) and SS-SI41B1 (3,770 mg/kg lead) appear to represent hot spots and will be excavated, characterized, and transported off-site for appropriate disposal. In addition, test pits will be excavated at locations along the perimeter of the previously excavated slag pile for visual inspection of the soil and site fill material. Soil samples will be collected from the two excavated areas and the test pits as described below.

Excavation Methodology – Soil excavation will be performed using an excavator operated by Clean Harbors. Soil from the two residual areas will be excavated for off-site disposal (Figure 1). It is anticipated that approximately 50 cubic yards of material will be removed from the area around confirmatory sample SS-SI51S100 and approximately 8 cubic yards of material will be removed from the area around SS-SI41B1 (note this area is currently under water). Confirmatory samples will be collected from the two removal areas as described below. The excavated material will be directly loaded into trucks for off-site disposal as a hazardous material under the previous slag material disposal characterization. This material will be transported to a waste facility under a hazardous waste manifest. Weight slips will be provided by the transport and disposal firm along with the shipping documentation which will be maintained in the project file. Dust control will be implemented as appropriate.

Test pits will be conducted at three representative areas along the perimeter of the former slag pile removal area. RIDEM will be contacted in advance of test pit activities such that RIDEM personnel can be present to observe the conditions of the test pits. Proposed test pit areas are indicated in yellow on Figure 1, but actual locations and number of test pits will be coordinated in the field with RIDEM. Test pit soils will remain within the former slag pile excavation area adjacent to the test pit. Test pits will provide a visual basis for identifying if residual slag or fill material is present. Photographs and logs of each test pit will be conducted to document the site conditions. If significant slag pieces are visible in test pits, the material will be removed either mechanically (scraping of the test pit side walls with backhoe bucket) or physically removed by a laborer for off site disposal and the test pit will be staked/flagged. Confirmation sampling will be performed as described below.

CONFIRMATION SOIL SAMPLING

MACTEC will collect confirmatory soil samples from the two excavation areas at 15-foot intervals. A bottom sample will also be collected from each excavation area. The soil samples will be collected for total lead. Additional sample volume will be collected at each confirmatory sample location and submitted to the laboratory for SPLP analysis if total lead values indicate concentrations greater than 1,000 mg/kg are present at the specific location. The analytical results will be provided to RIDEM and will be included in a letter report and the updated SIR.

MACTEC will collect one confirmatory soil sample from each test pit to be analyzed for total lead. Additional sample volume will be collected at each confirmatory sample location and submitted to the laboratory for SPLP analysis if total lead values indicate concentrations greater than 1,000 mg/kg at the specific location. The sample location will be the sidewall that is most representative of the subsurface and exterior surface of the former slag pile excavation area. This sidewall sample will have been exposed by the test pit, but will not have been mixed during the test pit activities. The analytical results will be incorporated into the SIR.

LOADING, HAULING & DISPOSAL

Excavated soil from the two residual areas will be disposed of off-site. During the proposed test pit activities, slag material, if found, will be removed and set aside for off-site disposal along with

the excavated soil. Weight slips will be provided by the transport and disposal firm along with the shipping documentation. This documentation will be included in the summary letter report submitted to RIDEM at the completion of the supplemental slag removal, as discussed below.

SOIL SAMPLING ACTIVITIES

Based on discussions with RIDEM on January 10, 2007, MACTEC will collect soil samples from three representative locations shown on Figure 1 at the limits of the former slag pile excavation that exhibited elevated residual total lead concentrations. The samples will be re-analyzed for total and analyzed for SPLP lead. This sampling will be in addition to the previously mentioned confirmatory sampling activities associated with the hot spot removal and test pitting activities. The results of the analysis will be provided to RIDEM and will be presented within a letter report discussed below and the updated Site Investigation Report (SIR).

SITE RESTORATION

Following the soil excavation at the two areas, test pits and soil sampling, the excavation area will remain open and will not be backfilled. The gate and fence at the top of the access road and immediately above the excavation area will be secured and locked to restrict access to Parcel D. The erosion control barrier, boom, and silt curtain within the Inner Cove will remain in place. It should be noted that pending the results of the updated SIR, this area will be addressed further to meet the Remediation Regulations.

Because the excavation area will remain open, a new monitoring well to replace GZA-5, previously located within the former slag pile, will be installed as part of the site restoration under future site activities.

REPORTING


At the completion of these activities MACTEC will prepare a summary letter report for submittal to RIDEM. This report will serve as an addendum to the Slag Removal Action Report submitted to the RIDEM on September 29, 2006 and will summarize the activities conducted under this Work Plan, visual observations, test pit results, photo documentation, quantity estimates, transportation and disposal documentation and confirmatory soil sampling results.

PROPOSED SCHEDULE


Dig Safe clearance of the Site and written notification to the neighborhood and interested parties of the proposed activities, as required under the Remediation Regulations, will be conducted during the week of January 22, 2007. Textron has scheduled the field activities to be completed over a two-day period during the week of January 29, 2007. Textron and MACTEC will coordinate all of the work with RIDEM so that they can be on-site for the duration of these activities.

We look forward to working with RIDEM on the review and execution of this Work Plan. Feel free to contact either Greg Simpson of Textron (401) 457-2635 or David Heislein of MACTEC (781) 213-5655 with any questions. We are available either for a conference call or to meet with RIDEM to address any questions you may have on this Work Plan.

Sincerely,
MACTEC Engineering and Consulting, Inc.



Dan Finan
Senior Engineer



David E. Heislein
Principal Engineer

cc: T. Deller, City of Providence
P. Grivers, EA Engineering, Science, and Technology
G. Simpson, Textron, Inc.
D. McCabe, Textron, Inc.
MACTEC Project File

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**Table 1. Summary of Copper UCL Confirmatory Sampling
Slag Removal Action Report
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter	Frequency of Detection	Minimum SQL	Minimum Detect	Average of Samples	Residential	Industrial / Commercial	SS-SI 64 B1 8/2/2006 1_5-2ft	SS-SI 64 B1 Dup 8/2/2006 1_5-2ft	SS-SI 65 N* 8/2/2006 0-1ft	SS-SI 66 S 8/2/2006 0-1ft	SS-SI 67 W 8/2/2006 0-1ft	SS-SI 68 E* 8/2/2006 0-1ft	SS-SI008* 6/6/2006 0-0_5ft	SS-SI008 DUP* 6/6/2006 0-0_5ft	SS-SI69 E 8/14/2006 0-0_5ft	SS-SI70 N 8/14/2006 0-1ft*	SS-SI78 N 8/16/2006 0-1ft
Volatile Organics (mg/kg)																	
1,1,1,2-Tetrachloroethane	0 / 2	0.0064 - 0.0065		0.0032	2.2	220							<0.0065	<0.0064			
1,1,1-Trichloroethane	2 / 2		0.145 - 0.222	0.18	540	10000							0.145	0.222			
1,1,2,2-Tetrachloroethane	0 / 2	0.0064 - 0.0065		0.0032	1.3	29							<0.0065	<0.0064			
1,1,2-Trichloroethane	0 / 2	0.0064 - 0.0065		0.0032	3.6	100							<0.0065	<0.0064			
1,1-Dichloroethane	2 / 2		0.0068 - 0.0114	0.0091	920	10000							0.0068	0.0114			
1,1-Dichloroethene	0 / 2	0.0064 - 0.0065		0.0032	0.2	9.5							<0.0065	<0.0064			
1,1-Dichloropropene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
1,2,3-Trichlorobenzene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
1,2,3-Trichloropropane	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
1,2,4-Trichlorobenzene	0 / 2	0.0064 - 0.0065		0.0032	96	10000							<0.0065	<0.0064			
1,2,4-Trimethylbenzene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
1,2-Dibromo-3-chloropropane	0 / 2	0.0064 - 0.0065		0.0032	0.5	4.1							<0.0065	<0.0064			
1,2-Dibromoethane	0 / 2	0.0064 - 0.0065		0.0032	0.01	0.07							<0.0065	<0.0064			
1,2-Dichlorobenzene	0 / 2	0.0064 - 0.0065		0.0032	510	10000							<0.0065	<0.0064			
1,2-Dichloroethane	0 / 2	0.0064 - 0.0065		0.0032	0.9	63							<0.0065	<0.0064			
1,2-Dichloropropane	0 / 2	0.0064 - 0.0065		0.0032	1.9	84							<0.0065	<0.0064			
1,3,5-Trimethylbenzene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
1,3-Dichlorobenzene	0 / 2	0.0064 - 0.0065		0.0032	430	10000							<0.0065	<0.0064			
1,3-Dichloropropane	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
1,4-Dichlorobenzene	0 / 2	0.0064 - 0.0065		0.0032	27	240							<0.0065	<0.0064			
1,4-Dioxane	0 / 2	0.32 - 0.326		0.16									<0.326	<0.32			
1-Chlorohexane	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
2,2-Dichloropropane	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
2-Butanone	0 / 2	0.064 - 0.0652		0.032	10000	10000							<0.0652	<0.064			
2-Chlorotoluene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
2-Hexanone	0 / 2	0.064 - 0.0652		0.032									<0.0652	<0.064			
4-Chlorotoluene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
4-Methyl-2-pentanone	0 / 2	0.064 - 0.0652		0.032	1200	10000							<0.0652	<0.064			
Acetone	0 / 2	0.064 - 0.0652		0.032	7800	10000							<0.0652	<0.064			
Benzene	0 / 2	0.0064 - 0.0065		0.0032	2.5	200							<0.0065	<0.0064			
Bromobenzene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Bromochloromethane	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Bromodichloromethane	0 / 2	0.0064 - 0.0065		0.0032	10	92							<0.0065	<0.0064			
Bromoform	0 / 2	0.0064 - 0.0065		0.0032	81	720							<0.0065	<0.0064			
Bromomethane	0 / 2	0.0128 - 0.013		0.0065	0.8	2900							<0.013	<0.0128			
Carbon disulfide	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Carbon tetrachloride	0 / 2	0.0064 - 0.0065		0.0032	1.5	44							<0.0065	<0.0064			
Chlorobenzene	0 / 2	0.0064 - 0.0065		0.0032	210	10000							<0.0065	<0.0064			
Chloroethane	0 / 2	0.0128 - 0.013		0.0065									<0.013	<0.0128			
Chloroform	0 / 2	0.0064 - 0.0065		0.0032	1.2	940							<0.0065	<0.0064			
Chloromethane	0 / 2	0.0128 - 0.013		0.0065									<0.013	<0.0128			
cis-1,2-Dichloroethene	0 / 2	0.0064 - 0.0065		0.0032	630	10000							<0.0065	<0.0064			
cis-1,3-Dichloropropene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Dibromochloromethane	0 / 2	0.0064 - 0.0065		0.0032	7.6	68							<0.0065	<0.0064			

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							8/2/2006 1_5-2ft	8/2/2006 1_5-2ft	8/2/2006 0-1ft	8/2/2006 0-1ft	8/2/2006 0-1ft	8/2/2006 0-1ft	6/6/2006 0-0_5ft	6/6/2006 0-0_5ft	8/14/2006 0-0_5ft	8/14/2006 0-1ft*	8/16/2006 0-1ft
Dibromomethane	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Dichlorodifluoromethane	0 / 2	0.0128 - 0.013		0.0065									<0.013	<0.0128			
Diethyl ether	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Diisopropyl ether	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Ethyl tertiary-butyl ether	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Ethylbenzene	0 / 2	0.0064 - 0.0065		0.0032	71	10000							<0.0065	<0.0064			
Hexachlorobutadiene	0 / 2	0.0064 - 0.0065		0.0032	8.2	73							<0.0065	<0.0064			
Isopropyl Benzene	0 / 2	0.0064 - 0.0065		0.0032	27	10000							<0.0065	<0.0064			
m,p-Xylene	0 / 2	0.0128 - 0.013		0.0065									<0.013	<0.0128			
Methylene Chloride	0 / 2	0.032 - 0.0326		0.016	45	760							<0.0326	<0.032			
Methyl-t-butyl ether	0 / 2	0.0064 - 0.0065		0.0032	390	10000							<0.0065	<0.0064			
Naphthalene	0 / 2	0.0064 - 0.0065		0.0032	54	10000							<0.0065	<0.0064			
n-Butylbenzene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
n-Propyl Benzene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
o-Xylene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
p-Isopropyl Toluene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
s-Butylbenzene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Styrene	0 / 2	0.0064 - 0.0065		0.0032	13	190							<0.0065	<0.0064			
t-Butylbenzene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Tertiary-amyl methyl ether	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Tetrachloroethene	0 / 2	0.0064 - 0.0065		0.0032	12	110							<0.0065	<0.0064			
Tetrahydrofuran	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Toluene	0 / 2	0.0064 - 0.0065		0.0032	190	10000							<0.0065	<0.0064			
trans-1,2-Dichloroethene	0 / 2	0.0064 - 0.0065		0.0032	1100	10000							<0.0065	<0.0064			
trans-1,3-Dichloropropene	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Trichloroethene	2 / 2		0.0628 - 0.0855	0.074	13	520							0.0628	0.0855			
Trichlorofluoromethane	0 / 2	0.0064 - 0.0065		0.0032									<0.0065	<0.0064			
Vinyl Chloride	0 / 2	0.0128 - 0.013		0.0065	0.02	3							<0.013	<0.0128			
Xylenes, Total	0 / 2	0.0192 - 0.0195		0.0097	110	10000							<0.0195	<0.0192			
Semivolatile Organics (mg/kg)																	
1-Methylnaphthalene	0 / 2	0.777 - 3.99		1.2	123	10000							<0.777	<3.99			
2-Methylnaphthalene	0 / 2	0.777 - 3.99		1.2	123	10000							<0.777	<3.99			
Acenaphthene	0 / 2	0.777 - 3.99		1.2	43	10000							<0.777	<3.99			
Acenaphthylene	0 / 2	0.777 - 3.99		1.2	23	10000							<0.777	<3.99			
Anthracene	0 / 2	0.777 - 3.99		1.2	35	10000							<0.777	<3.99			
Benzo(a)anthracene	1 / 2	3.99 - 3.99	1.48 - 1.48	1.7	0.9	7.8							1.48	<3.99			
Benzo(a)pyrene	2 / 2		1.69 - 4.14	2.9	0.4	0.8							1.69	4.14			
Benzo(b)fluoranthene	2 / 2		2.26 - 5.81	4.0	0.9	7.8							2.26	5.81			
Benzo(g,h,i)perylene	1 / 2	3.99 - 3.99	0.953 - 0.953	1.5	0.8	10000							0.953	<3.99			
Benzo(k)fluoranthene	1 / 2	3.99 - 3.99	1.61 - 1.61	1.8	0.9	78							1.61	<3.99			
Chrysene	2 / 2		1.77 - 4.44	3.1	0.4	780							1.77	4.44			
Dibenzo(a,h)anthracene	0 / 2	0.777 - 3.99		1.2	0.4	0.8							<0.777	<3.99			
Fluoranthene	2 / 2		2.24 - 10.3	6.3	20	10000							2.24	10.3			

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Fluorene	0 / 2	0.777 - 3.99		1.2	28	10000							<0.777	<3.99			
Indeno(1,2,3-cd)pyrene	1 / 2	3.99 - 3.99	0.898 - 0.898	1.4	0.9	7.8							0.898	<3.99			
Naphthalene	0 / 2	0.777 - 3.99		1.2	54	10000							<0.777	<3.99			
Phenanthrene	2 / 2		2.42 - 7.88	5.2	40	10000							2.42	7.88			
Pyrene	2 / 2		4.36 - 8.41	6.4	13	10000							4.36	8.41			
Pesticides/PCBs (mg/kg)																	
4,4'-DDD	0 / 2	0.00762 - 0.00794		0.0039	2.7	24							<0.00762	<0.00794			
4,4'-DDE	1 / 2	0.00762 - 0.00762	0.402 - 0.402	0.20	1.9	17							<0.00762	0.402			
4,4'-DDT	2 / 2		0.95 - 1.05	1.0	1.9	17							0.95	1.05			
Aldrin	0 / 2	0.00762 - 0.00794		0.0039									<0.00762	<0.00794			
alpha-BHC	0 / 2	0.00762 - 0.00794		0.0039	0.1	0.9							<0.00762	<0.00794			
alpha-Chlordane	0 / 2	0.00762 - 0.00794		0.0039	1.8	16							<0.00762	<0.00794			
beta-BHC	0 / 2	0.00762 - 0.00794		0.0039	0.4	3.2							<0.00762	<0.00794			
Chlordane	0 / 2	0.0762 - 0.0794		0.039	0.5	4.4							<0.0762	<0.0794			
delta-BHC	0 / 2	0.00762 - 0.00794		0.0039	0.5	4.4							<0.00762	<0.00794			
Dieldrin	0 / 2	0.00762 - 0.00794		0.0039	0.04	0.4							<0.00762	<0.00794			
Endosulfan I	0 / 2	0.00762 - 0.00794		0.0039									<0.00762	<0.00794			
Endosulfan II	0 / 2	0.00762 - 0.00794		0.0039	470	12000							<0.00762	<0.00794			
Endosulfan sulfate	0 / 2	0.00762 - 0.00794		0.0039	470	12000							<0.00762	<0.00794			
Endrin	0 / 2	0.00762 - 0.00794		0.0039									<0.00762	<0.00794			
Endrin aldehyde	0 / 2	0.00762 - 0.00794		0.0039									<0.00762	<0.00794			
Endrin ketone	0 / 2	0.00762 - 0.00794		0.0039	23	610							<0.00762	<0.00794			
gamma-BHC (Lindane)	0 / 2	0.00762 - 0.00794		0.0039									<0.00762	<0.00794			
gamma-Chlordane	0 / 2	0.00762 - 0.00794		0.0039	1.8	16							<0.00762	<0.00794			
Heptachlor	0 / 2	0.00762 - 0.00794		0.0039	0.1	1.3							<0.00762	<0.00794			
Heptachlor epoxide	2 / 2		0.297 - 0.651	0.47	0.07	0.6							0.297	0.651			
Hexachlorobenzene	1 / 2	0.00762 - 0.00762	0.00919 - 0.00919	0.0065	0.4	3.6							<0.00762	0.00919			
Methoxychlor	0 / 2	0.00762 - 0.00794		0.0039	390	10000							<0.00762	<0.00794			
Toxaphene	0 / 2	0.381 - 0.397		0.19									<0.381	<0.397			
Aroclor-1016	0 / 2	0.0793 - 0.761		0.21	10	10							<0.761	<0.793			
Aroclor-1221	0 / 2	0.0761 - 0.0793		0.039	10	10							<0.0761	<0.0793			
Aroclor-1232	0 / 2	0.0761 - 0.0793		0.039	10	10							<0.0761	<0.0793			
Aroclor-1242	0 / 2	0.0761 - 0.0793		0.039	10	10							<0.0761	<0.0793			
Aroclor-1248	0 / 2	0.0761 - 0.0793		0.039	10	10							<0.0761	<0.0793			
Aroclor-1254	2 / 2		6.02 - 7.15	6.6	10	10							6.02	7.15			
Aroclor-1260	2 / 2		1.34 - 2.02	1.7	10	10							1.34	2.02			
Aroclor-1262	0 / 2	0.0761 - 0.0793		0.039	10	10							<0.0761	<0.0793			
Aroclor-1268	0 / 2	0.0761 - 0.0793		0.039	10	10							<0.0761	<0.0793			

**Table 1. Summary of Copper UCL Confirmatory Sampling
Slag Removal Action Report
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter	Frequency of Detection	Minimum SQL	Minimum Detect	Average of Samples	Residential	Industrial / Commercial	SS-SI 64 B1 8/2/2006 1_5-2ft	SS-SI 64 B1 Dup 8/2/2006 1_5-2ft	SS-SI 65 N* 8/2/2006 0-1ft	SS-SI 66 S 8/2/2006 0-1ft	SS-SI 67 W 8/2/2006 0-1ft	SS-SI 68 E* 8/2/2006 0-1ft	SS-SI008* 6/6/2006 0-0_5ft	SS-SI008 DUP* 6/6/2006 0-0_5ft	SS-SI69 E 8/14/2006 0-0_5ft	SS-SI70 N 8/14/2006 0-1ft*	SS-SI78 N 8/16/2006 0-1ft
Inorganics (mg/kg)																	
Antimony	2 / 2		32 - 32.1	32	10	820							32.1	32			
Arsenic	2 / 2		17.3 - 17.6	17	7	7							17.6	17.3			
Barium	2 / 2		83.1 - 93.3	88	5500	10000							93.3	83.1			
Beryllium	2 / 2		0.77 - 0.79	0.78	0.4	1.3							0.77	0.79			
Cadmium	2 / 2		21.7 - 25.3	24	39	1000							21.7	25.3			
Chromium	2 / 2		746 - 940	843	390	10000							746	940			
Copper	11 / 11		1770 - 16900	8474	3100	10000	5440	9830	16900	3970	2110	10700	14100	15000	2590	10800	1770
Lead	2 / 2		3350 - 3660	3505	150	500							3350	3660			
Mercury	2 / 2		1.43 - 2.89	2.2	23	610							2.89	1.43			
Nickel	2 / 2		65.9 - 76.6	71	1000	10000							76.6	65.9			
Selenium	0 / 2	8.6 - 8.9		4.4	390	10000							<8.6	<8.9			
Silver	2 / 2		379 - 445	412	200	10000							379	445			
Thallium	0 / 2	2.2 - 2.2		1.1									<2.2	<2.2			
Zinc	2 / 2		1430 - 1470	1450	6000	10000							1470	1430			
Dioxins/Furans (mg/kg)																	
1,2,3,4,6,7,8-HpCDD	2 / 2		0.0016 - 0.0022	0.0019									0.0016	0.0022			
1,2,3,4,6,7,8-HpCDF	2 / 2		0.00099 - 0.00099	0.0010									0.00099	0.00099			
1,2,3,4,7,8,9-HpCDF	2 / 2		0.00011 - 0.00013	0.00012									0.00013	0.00011			
1,2,3,4,7,8-HxCDD	2 / 2		0.000062 - 0.000064	0.000063									0.000062	0.000064			
1,2,3,4,7,8-HxCDF	2 / 2		0.00023 - 0.00029	0.00026									0.00029	0.00023			
1,2,3,6,7,8-HxCDD	2 / 2		0.00015 - 0.00016	0.00016									0.00015	0.00016			
1,2,3,6,7,8-HxCDF	2 / 2		0.00018 - 0.00023	0.00021									0.00023	0.00018			
1,2,3,7,8,9-HxCDD	2 / 2		0.00011 - 0.00012	0.00012									0.00011	0.00012			
1,2,3,7,8,9-HxCDF	2 / 2		0.000044 - 0.0001	0.000072									0.0001	0.000044			
1,2,3,7,8-PeCDD	2 / 2		0.000025 - 0.000042	0.000034									0.000042	0.000025			
1,2,3,7,8-PeCDF	1 / 2	0.000001 - 0.000001	0.00013 - 0.00013	0.000065									<0.000001	0.00013			
2,3,4,6,7,8-HxCDF	2 / 2		0.00023 - 0.00026	0.00025									0.00026	0.00023			
2,3,4,7,8-PeCDF	2 / 2		0.00027 - 0.00049	0.00038									0.00049	0.00027			
2,3,7,8-TCDD	2 / 2		0.000062 - 0.000065	0.000066									0.000062	0.000065			
2,3,7,8-TCDF	2 / 2		0.00014 - 0.00015	0.00015									0.00014	0.00015			
OCDD	2 / 2		0.0095 - 0.015	0.012									0.0095	0.015			
OCDF	2 / 2		0.00097 - 0.0012	0.0011									0.00097	0.0012			
Total HpCDD	2 / 2		0.0028 - 0.0037	0.0033									0.0028	0.0037			
Total HpCDF	2 / 2		0.0022 - 0.0022	0.0022									0.0022	0.0022			
Total HxCDD	2 / 2		0.0015 - 0.0017	0.0016									0.0015	0.0017			
Total HxCDF	2 / 2		0.0032 - 0.0035	0.0034									0.0035	0.0032			
Total PeCDD	2 / 2		0.00063 - 0.00066	0.00065									0.00066	0.00063			
Total PeCDF	2 / 2		0.0038 - 0.0038	0.0038									0.0038	0.0038			
Total TCDD	2 / 2		0.0004 - 0.00042	0.00041									0.0004	0.00042			
Total TCDF	2 / 2		0.0019 - 0.0022	0.0021									0.0019	0.0022			

Shading indicates an exceedance of the
Industrial / Commercial RI Direct Exposure Criteria.
ft - feet
mg/kg - milligrams per kilogram
* indicates sample location was excavated

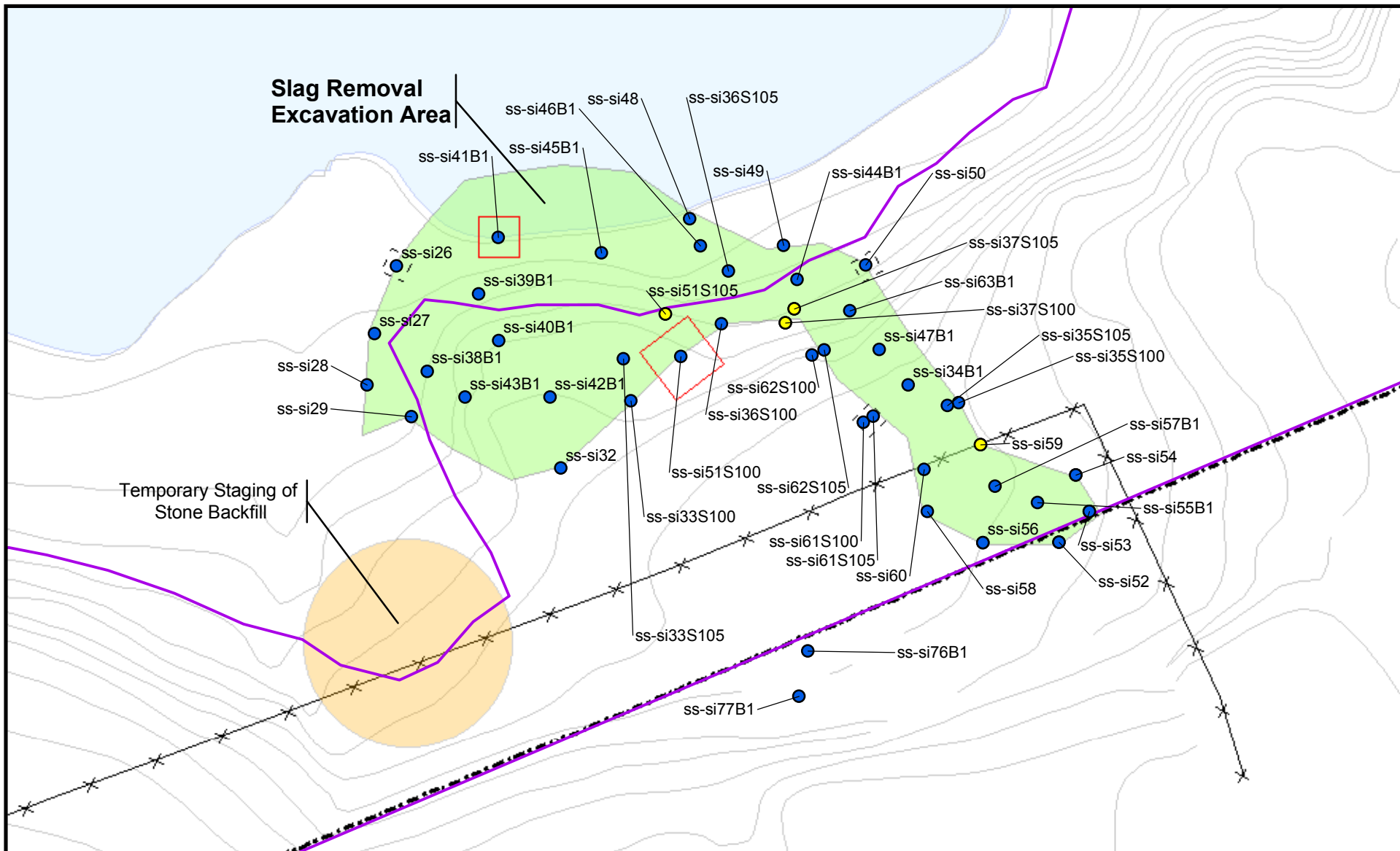
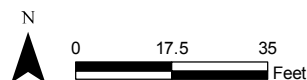


Figure 1
Proposed Soil Removal,
Test Pit and Sampling Locations

Former Gorham Site
333 Adelaide Avenue
Providence, Rhode Island

Legend

- Previous Sample Location
- Collect total lead and SPLP samples
- Initially Excavated Area
- - - Test Pit (Final Locations To Be Determined in Field)
- Approximate Fill Area
- Additional Removal Area
- Elevation
- ✕ City Fence



Prepared by BJR | Checked by DGK