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January 30, 2009

Mr. Glenn May
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203

Re: Spaulding Fibre Site, Supplemental Investigation Result Report - Revised

Dear Mr. May:

On behalf of the Erie County Industrial Development Agency (ECIDA) and the Spaulding Fibre Steering Committee (Steering Committee), LiRo Engineers, Inc. (LiRo) has prepared this revised letter report to document the results of the Supplemental Investigation conducted at the Site during July 2008. The report was revised to incorporate your comments dated November 21, 2008. The rationale for the Supplemental Investigation was to more accurately evaluate the extent (area and volume) of excavation required to remediate Operable Units(OU) 5, 6 and 7.

To summarize briefly, the collection of supplemental investigation data has enabled LiRo to refine the proposed soil excavation areas where either restricted residential criteria are exceeded, or site-related materials such as button ash, foundry sand and/or slag were found to be present. The volume of material requiring excavation has been reduced from the April 2008 estimate of 40,221 cubic yards (cy) to 34,674 cy.

Supplemental Investigation Sampling Program Scope of Work

At the April 22, 2008 meeting between the ECIDA, the Steering Committee, and LiRo, LiRo presented a figure showing Site Investigation (SI) sample locations where site soil standards, criteria and guidance (SCG) value exceedances were evident, as well as preliminary remediation areas and preliminary soil excavation depths. The remediation areas and depths were used to develop preliminary cost estimates for the site remediation. LiRo noted at the meeting that the preliminary remediation extents were based on assumptions that individual and composite sample point results were representative of relatively large Site areas. For example, when one sample obtained within a specific plant building area (i.e., a “room”) exceeded SCGs, then the entire area of the room was considered to be a remediation area.

The Supplemental Investigation sampling program was developed to define the extent of contamination and determine more accurately if remediation areas could be reduced by isolating sample exceedances to specific locations. The proposed sampling strategy was designed to evaluate areas that were assumed to be contaminated because they were associated with a building or bounded by relatively widely spaced exceedance points.

Sampling and Analysis

The program was conducted as proposed in Table 1 of the May 9, 2008 Supplemental Investigation Plan with the exceptions noted on the updated Table 1 (attached). One-hundred and thirteen samples were collected from 81 locations. Surveyed sample locations are shown on Figure 1 (e.g., A-1, A-2, etc.). Locations are referenced to the preliminary remediation areas identified previously, and to the previous investigation sample points which showed SCG exceedances.

Supplemental investigation sampling was conducted using an excavator/backhoe, except for basement locations which required the use of a portable, pneumatic hammer (jackhammer) to drive a split-spoon sampler. Test pit logs and split-spoon boring logs are included in Attachment 1.

Sampling methods, health and safety and QA/QC protocols for the Supplemental investigation conform to the requirements detailed in the Site Investigation work plans. Chemtech performed laboratory analytical work using NYSDEC Analytical Services Protocol (ASP) Category B requirements for analysis and data deliverables. A data usability summary report (DUSR) was prepared for the OU7 laboratory results and is included in Attachment 2.

The analytical schedule indicated on Table 1 for the Supplemental investigation samples was limited to the specific analytes which exceeded SCGs in the specific areas of investigation. During the supplemental investigation sampling program, LiRo's supervising geologist conducted field screening for visual, olfactory, or PID evidence of contamination.

Surveying and Mapping

The locations of test pits were surveyed for horizontal coordinates by a New York State licensed surveyor from Foit-Albert Associates. The coordinates were referenced to the existing site survey that was prepared during previous site investigations. The surveyed sample location coordinates are summarized in Table 2.

Results

Analytical results are provided by area in Table 3. Soil data is compared to 6NYCRR Part 375 Restricted-Residential soil cleanup objectives (or TAGM #4046 recommended soil cleanup objectives for Di-n-butylphthalate).

Updated exceedance tables for Operable Unites 5, 6, and 7 (previously Tables 5-1 through 5-7 in the Site Investigation Report (SIR)) are provided as Tables 4 through 13. Updated exceedance figures (previously Figures 5-1 through 5-6 in the SIR) are presented as Figures 2 through 10.

The following discussion presents, by area, the results of the Supplemental Investigation. A figure showing refined remediation area limits and volumes is presented as Figure 1.

OU7

Area A
Discrete samples were collected from the test pit areas where PAHs were previously detected in the composite sample (0-3' cover and native). Supplemental samples were collected from 0-1' (cover/native) and 1'-3' (native) at each of the three locations. No exceedances were found in the discrete samples therefore no excavation is proposed in OU7.

OU5

OU5 Overview
Based on results of the supplemental investigation work, the remediation area of OU5 has been expanded to include all test pits where evidence of slag and/or asphalt millings was observed.

Area I
Three samples were collected in the area of TP-13 where As exceeded criteria. Six to ten inches of dark sand and asphalt subbase was found in all 3 samples. Up to 1' of asphalt millings were found in TP-13 and TP-14 and 18" in TP-12. An exceedance was found at one supplemental data location (I-2 at 0-2'). The proposed excavation area is extended to include sample points I-1, I-2, and I-3, and TP-12, TP-13, and TP-14 to a depth of 2'.

Area J
Three samples were collected from fill found to be present to a depth of 18" in the area of TP-15 where As exceeded criteria. No exceedance was found at supplemental data locations J-1, J-2, and J-3 however, slag was found to be present to a depth of 18". The excavation area will be extended to include sample points J-1, J-2, and J-3.

Area IJ
Two samples were collected in the area of sample location point 71.1 where PAHs were found to exceed criteria. Slag and/or asphalt millings were found to be present in both samples to a depth of 8" and up to a depth of 10" in TP-5, TP-6 and TP-7. Sample location IJ-3 was eliminated based on soil observations (slag/millings) at IJ-1 and IJ-2. An exceedance was found at one supplemental data location (IJ-2 at 0-6"). The excavation area will be extended to include sample points IJ-1, IJ-2, and TP-5, TP-6, and TP-7 to a depth of 1'.

OU6

Area B
One sample was collected within the drainage ditch slightly (about 20') downstream of sample point location 79 where Cd exceeded criteria (concentration of 6.3 mg/kg versus the criteria of 4.3 mg/kg) in the sample from 3'-4' depth in native material. No exceedance was found at supplemental data location B-1 which was sampled at a depth of 3-4' in regraded native material. Since there was only one exceedance at depth in an area where fill does not appear to be present, it is proposed that no excavation be conducted in this area.

Area C
Discrete samples were collected from the test pits where PAHs and metals were previously detected in composite samples. Nine discrete samples were collected within Area C from depths

to 2'. Fill material was found in samples C-1 (1'), C-4 (13"), and C-6 (6"). There was one exceedance (Cu) at supplemental data location C-4 (0-1'). It is proposed that excavation in Area C include only the button ash piles, which are at a depth of generally less than 1', and sample point locations C-1, C-4 and C-6. Excavation should still include the drainage ditch extending from the NYSDEC OU, through sample location 67 which contained PCBs and SVOCs, and SI sample location 66, which contained PAHs. These samples exceeded criteria at a depth of 0-6"; therefore, a 1' excavation is proposed.

Area D
Three samples were collected around sample point location 85 where PAHs and metals were found. There were no exceedances at supplemental data locations; however, some ash was found in the test pits to a depth of less than 1'. Therefore, the proposed excavation area remains as originally proposed. Exceedances in sample location 85 were at 0-1' with only one low level exceedance between 2'-3'. The proposed excavation is reduced to a depth of 1' instead of 3'.

Areas E and F
No supplemental data was proposed or collected in the button ash piles. Proposed excavation includes the full extent of the button ash piles. The excavation depth is reduced from 2' to 1' since the test pit logs indicate the piles are generally less than 1' deep.

Area G
Seven samples were collected from 5 locations in this area which is divided by a drainage ditch and railroad tracks. In general, topsoil was underlain by native material. Only one supplemental sample location (G-4) showed an exceedance (As at a depth of 0-2'). Sample locations G-3 and G-5 south of the drainage ditch showed no exceedances therefore the area to the south is proposed to be eliminated. SI sample location 82 showed an isolated marginal exceedance of the SCG for Cd (detected concentration 4.88 mg/kg vs. criteria of 4.3 mg/kg) so it is proposed that the area west of the railroad tracks be eliminated.

Area H
No supplemental data was proposed or collected in this small area. The excavation area proposed is the same as originally proposed.

Area K
Two sample points at 2 sample depths were proposed to determine the endpoints of excavation. No exceedances were found in supplemental data samples. However, since test pits indicated the presence of slag to a depth of approximately 1', the proposed excavation area remains as originally proposed.

Area L
No supplemental data was proposed or collected in this small area. The SI sample (location 44) had an exceedance of Ba at a depth of 1.5'-3' with a concentration of 404 mg/kg compared to the criteria of 400 mg/kg. Since no other contaminants exceeded criteria in this sample, and Ba is not a site-related COC, it is proposed that there be no excavation in Area L.

Area M
Four samples were proposed at 2 locations in the fill and native material to determine excavation endpoints. No fill material was found at sample location M-2 so no fill sample was collected

from this location. No exceedances were found in the native material sample at M-2. Supplemental data location M-1 exceeded criteria for PAHs at 0-6". It is proposed that the excavation depth remain at 4-foot fill depth found in TP-27. Since no fill or exceedances were found at M-2, it is proposed that the excavation area be reduced to the west, but extended to the south to include location M-1.

Area N

Three sample locations were proposed in Area N where Ba exceeded criteria (0-3') to determine excavation endpoints. No fill was found at N-2 and N-3 so no samples were collected. SI TP-28 indicated slag to a depth of 1' and samples were collected at location N-1 at a depth of 0-1' (slag) and 2'-3' (native). Supplemental data showed no exceedances for Ba. It is proposed that the slag to a depth of 1' in the area of N-1 be included in the excavation area.

Area AA

SI data results for TP-60 indicated exceedances at 2.5' for PAHs and metals. Three sample locations were proposed to determine the excavation endpoint, and a fourth location was added based on field observations. One sample was collected at the top of native material (3'-3.5') at each location and an additional sample was collected in the fill material at AA-4. There were no supplemental data exceedances for PAHs, and only As exceeded criteria at location AA-4 at 0-6". Locations AA-1 and AA-2 did not contain ash; locations AA-3 and AA-4 contained ash to 2.5'. It is proposed that the excavation depth within Area AA remain at 3' with possible over-excavations necessary if ash is found, and in the localized area near TP-60. The proposed areal extent of Area AA has been expanded to incorporate sample location AA-4.

Area AB

No supplemental samples were proposed or collected in this area. The excavation area proposed is the same as originally proposed.

Area AC

SI sample P-61 exceeded criteria for Cd and Zn and sample 32 marginally exceeded the criteria for Cd in Area AC. Four sample locations were proposed within Area AC at 2 depths to determine the area of excavation; however, locations AC-1 and AC-2 could not be sampled as the excavator could not penetrate the bottom slab beneath the freshwater storage cistern which was present over a portion of this area. AC-3 was excavated west of the cistern and fill with ash was found in AC-3 to a depth of 2.5'. AC-4 was advanced south of the cistern, near SI location 61. Cadmium exceeded criteria in AC-4 at a 2'-3' depth. The excavation area for AC has been reduced to exclude the cistern as the structure was built on native clay and no site-related contamination would be anticipated based on the fresh water storage use of the cistern.

Area AD

Six samples were proposed to be collected from 2 locations, however, due to the presence of vats, and water-filled void spaces, only one sample from AD-2 was collected. Sample location AD-1 had a water-filled void space that was observed to a depth of approximately 4.5 feet. The lower slab was not penetrated. Zinc exceeded criteria in AD-2 (beneath a concrete vat) at a depth of 7.5'-8.5', similar to the exceedance depth in SI samples 24 and 25 in Area AD. The SI samples were collected below a 4' void space and a 2' cement slab. A 3' thickness of soil is proposed for excavation.

Area AE
Two samples were collected from this area where PCBs, Cd and Pb exceeded criteria at a depth of 3'-4' in SI sample 76. At AE-1, approximately 2' of fill (gravel with some brick and wood) was observed overlying clayey silt. A sample of the clay material at AE-1 showed no exceedances. Based on fill characteristics, the location AE-1 appears to be outside of the western limit of the former process pit area.

Supplemental investigation location AE-2 was advanced between the existing process pits. The interior bagged resin dust landfill area (SWMU 10) was discovered at AE-2. The bagged waste was found (in a matrix of foundry sand) between the main plant floor and a lower slab which was located at a depth of 55" below the main floor. A sample of the bagged material was collected at AE-2 and analyzed for hazardous waste characteristics and for asbestos. The material was determined to be non-hazardous by meeting TCLP and RCRA criteria and asbestos was not detected in the material. Results for the bagged resin dust sample are provided as the last page of Table 3.

Based on the presence of waste, the AE-2 soil sample analytical schedule was expanded to include VOCs and SVOCs. AE-2 soil showed exceedances for PCBs and cadmium, but no exceedances for VOCs or SVOCs. Based on these results, the AE excavation area limit was adjusted eastward and the depth was increased to 5 feet.

Area AF
Three samples were proposed within this area; however, AF-1 was inaccessible. SI sample 22 indicated metal exceedances between depths of 2'-3'. AF-2, collected in native material beneath the fill layer of concrete and slag, also exceeded criteria for Cd and Zn at 1.5'-2'; AF-3 exceeded criteria for Zn at 0-2'. The proposed excavation area is the same as originally proposed to a depth of 3'.

Areas AG and AH
Three samples were proposed in this area where only one previous sample had been obtained (SI sample location 13). At locations AG-2 and AG-3, excavated west of the process pit area, 2'-2.5' of fill material including sand, gravel, clay, and regraded clay was found overlying native clay. Zinc was detected in SI sample location 13 at a depth of 2'-3' and in supplemental sample AG-3 (1.5'-2'). Observations at AG-1 showed that pits east and west were contiguous beneath the main plant floor slab. The AG-1 sample (7') was collected one foot below the bottom slab and also showed an exceedance for Zn. The excavation area proposed was increased slightly based on the supplemental investigation data. The depth of proposed excavation remains 3'.

Area AI
No supplemental data was proposed or collected in the button ash pile. Proposed excavation includes the full extent of the button ash pile. The excavation depth is reduced from 2' to 1' since the test pit log indicates the pile is less than 16" deep.

Area AJ
Six samples were proposed from five locations within Area AJ where Cu and Zn were detected in SI sample 19. Only supplemental data location AJ-3 at 1'-2' exceeded criteria. Fill material including subbase was found to a depth of 2'. Excavation in sub-area AJ-a is proposed to 2'. It is believed that the large pit areas in Areas AJ and AK were constructed over clay. The excavation

area proposed has been reduced to reflect the presence of the pits. Beneath the pits in both areas AJ and AK excavation is proposed to a depth of 1' (combined into area AJ-b).

Area AK
Eight samples were proposed from six locations within Area AK. Sample location AK-3 was inaccessible. SI data indicates PAH exceedances were detected at location 18 at a depth of 1'-2' and Mn exceedances were detected in SI samples at location 17 (1'-2' and 5'-6'). Supplemental investigation data from locations AK-1 and AK-2 in the southern portion of Area AK (referred to as subarea AK-a in Figure 1) indicates the presence of foundry sand to 2'. PAHs exceeded criteria at location AK-2 which was sampled from 1'-2'. SI data at locations 17 and 17.1 indicated the presence of black angular (foundry) sand to a depth of 4'. It is proposed that the depth of excavation in the southern portion of Area AK (AK-A) be reduced from 6' to the top of clay, the average depth of which is 4'.

It is proposed that excavation within the northern portion of Area AK (sub-area AK-b) remain at the originally proposed depth of 6' since supplemental samples from locations AK-5 and AK-6 exceeded criteria for Zn at 4'-6', and foundry sand was found to a depth of 6'. SI results for sample 58.1 showed a marginal exceedance for Zn at a depth of 12' in native clay. Based on the limited mobility of Zn through the clay and the likelihood that this portion of the site will be backfilled after the remedial excavation is conducted, the Zn exceedance should pose no significant risk to future site users. Therefore, the planned remedial excavation will be conducted to the top of the native clay layer which is at an average depth of 6'.

Area AL
Samples AL-1 and AL-2 were collected in an area adjacent to SI locations 58/58.1. Two samples were taken from each location at depths of 0-2' and 2'-4' and analyzed for PAHs, PCBs, di-n-butylphthalate, Cd, Zn, and Cr. Analytical results did not indicate any exceedances; however, foundry sand was found to a depth of 2' at AL-1 and to 4' at AL-2. Excavation to an average depth of 3' is proposed to remove the foundry sand.

Area AM
Four samples were proposed from three locations in Area AM where previous SI sample 56 exceeded the TAGM value for di-n-butyl phthalate. No foundry sand and/or slag were observed in the test pits and no exceedances were detected in the supplemental samples. Therefore, the excavation in this area has been reduced to the immediate area of SI location 56.

Area AN
No supplemental samples were proposed in this area where PCBs were previously detected by NYSDEC in basement/sump areas. The excavation area proposed is the same as originally proposed to a depth of 2' below the bottom slab.

Area BA
SI sample P-43 exceeded criteria for Mn by approximately 10 percent; however, supplemental investigation locations from fill materials in BA-1 and BA-2 and samples in adjacent area AM (AM-1, AM-2, AM-3), did not exceed criteria. Manganese is not a site-related contaminant. Therefore, no excavation is proposed for Area BA.

Area BB
PAHs exceeded criteria in SI sample 53 at 0-4' (fill and clay) and also exceeded criteria in supplemental investigation sample BB-1 at 0-2' which was obtained from foundry sand present in the soil boring. The excavation area and depth proposed remain the same as originally proposed.

Area BC
Eleven supplemental samples were obtained from Area BC and analyzed for contaminants exceeding criteria in SI samples 52 and 52.1 (arsenic, benzene, di-n-butylphthalate). Area BC is comprised of three adjacent rooms which showed different construction and characteristics.
The northernmost room (subarea BC-a) was constructed with a raised floor on concrete piers. Beneath the floor was 2.5' of void space (un-enclosed) and then another 6" concrete slab. The lower slab was underlain by approximately 1' of clay/fill then native clay. Water seeped into the excavation for BC-4 at a depth of about 4' below the main slab. There was a di-n-butylphthtalate exceedance in BC-4 fill just below the second slab. Based on these observations and results, excavation to a depth of 1' below the bottom slab is proposed for this subarea.

The middle room (sub-area BC-b) also had multiple floor slabs, but the lower slab was deeper (4.2' below the main slab) and no void space was evident. Observations at supplemental investigation location BC-1 (and SI locations 52/52.1) showed fill consisting of sand with brick and concrete between the floor slabs. Abundant water (with a chemical odor) was present just beneath the lower floor slab seeping into the BC-1 test pit at approximately 4.8' below the main plant floor. Clay was encountered at a depth of 5.5' below the main plant floor. Analytical sample results from depths of 3', 6', and 7.5'-8' all showed no criteria exceedances. Based on site observations, an additional sampling point (BC-5) was conducted (using the jackhammer) approximately 20' west of BC-1 to evaluate the extent of free water and the lower floor slab. BC-5 was advanced to a depth of 6.5' below the main floor slab. No lower floor was encountered and only a small amount of free water was observed. No analytical samples were collected at BC-5. Based on the results, an excavation depth of 6' is proposed for Subarea BC-b; however, PID readings and/or visual observations during excavation may indicate the need for deeper excavation in localized areas, especially in the area of sample point 52/52.1. Dewatering in this area may also be necessary during excavation activities. Although deeper (up to 21') benzene exceedances were observed at 52/52.1, the low permeability clay soil will limit contaminant migration and placement of clean fill over the area after excavation will mitigate any direct exposure from residual contamination.

The southernmost room (BC-c) showed only one main plant floor slab. The floor was underlain by foundry sand with some brick stone and slag to a depth of 3' at BC-3 and 4' at BC-2. Clay/silt was observed at both locations below a depth of 4.5'. Analytical samples were collected from 3', 6' and 9' at both locations and there were no criteria exceedances. Based on the BC-c area observations, excavation to an average depth of 6' below the main floor slab is proposed for this area.

Area BD
Supplemental sample locations BD-1, BD-2 and BD-3 (at depths of 3' and 6') surrounding SI sample point 54 did not indicate any exceedances. Fill containing some slag was present in the supplemental sampling to depths less than 2'. The sample point 54 PAH contamination at a depth of 3'-5', which marginally exceeded criteria, is considered localized with little potential to

migrate or adversely impact future site users. Therefore, the proposed excavation area for the area is reduced to a depth of 3'.

Area BE
No supplemental samples were proposed in this area. The excavation area proposed is the same as originally proposed.

Areas BF and BG (including location EX)
Five supplemental samples were proposed from a depth of 1'-2' in Areas BF and BG. Analytical results were similar to SI sample results in test pits 1 and 2 (1'-2'); however, foundry sand was found to a depth of 4' in the majority of supplemental test pits. The excavation depth in this area is therefore increased to 4'.

No samples were obtained from location EX; however, foundry sand was found to a depth of 2'. Samples collected from nearby test pit 3 at a depth of 1'-2' (fill) and 3'- 4' (native) indicated the presence of black sand to a depth of approximately 2.5' with contaminants at levels below criteria. Localized excavation to a depth of 3' is proposed in this area.

Area BH
Upon further review, there was no metal exceedance in SI sample P-94 as originally indicated, confirmed by the lack of an exceedance in Supplemental sample BH-1. Area BH includes SI sample location 8 which indicated the presence of black angular (foundry) sand to a depth of 2'. Excavation to a depth of 2' is proposed in this area.

Area BI
Supplemental sample BI-1 results confirm the SI sample location 51 results with an exceedance of Cd at 3'-5'. Black angular (foundry) sand was found to a depth of 5'. The excavation area and depth proposed are the same as originally proposed.

Area BJ
No supplemental samples were proposed or collected from Area BJ. SI data indicated one exceedance of Cd at a depth of 7'-9' marginally above criteria (concentration of 4.53 mg/kg versus criteria of 4.3 mg/kg). Since the exceedance is below the depth of potential human exposure, and area BJ is beneath the freshwater cistern (see discussion for Area AC), Area BJ excavation has been eliminated.

Area BK
No exceedances were detected in supplemental investigation sample BK-1; however, since this was the lab area, the originally proposed excavation area and depth of 2' remains.

Summary

The table on Plate 1 provides a summary of the areas and volumes of the proposed remedial excavations at the Site. An estimated 34,674 cy of soil is proposed to be excavated. Based on the supplemental investigation data, LiRo believes that the level of confidence in the remedial volume estimate is greatly enhanced and that the quality of the remedial effort will be improved. Overall, the revised volume estimate represents a reduction of approximately 15% as a result of the Supplemental Investigation.

If you have any questions, please contact me at (716) 882-5476.

Sincerely,

LiRo Engineers, Inc.

Robert Kreuzer
Vice President
(attch)

Cc Gregory Sutton - NYSDEC
Kenneth Swanekamp – Erie Co
Paul Kranz – Erie Co
Jo Nasoff – ECIDA
Jason LaMonaco – City of Tonawanda
Matthew Forcucci - NYSDOH

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TABLE 1
SUMMARY OF SUPPLEMENTAL INVESTIGATION SAMPLING
SPAULDING FIBRE SITE

Remediation Area (Fig 1)	Contaminated Sample ID	Proposed Location ID(s)	Delineation Sample Depth	Proposed # Samples	Proposed Analysis	Actual # Samples	Actual Analysis
A	SP-9	A-1, A-2, A-3	0-1' and 1-3'	6	PAHs	6	as proposed
B	79	B-1	2-4'	1	Cd	1	as proposed
C	TP-59	C-1	1-2'	1	PAHs, As, Ba, Cd, Cr*, Cu, Hg, Ni, Pb, Zn	1	as proposed
	SP-18	C-2, C-3	0-2'	2	As	2	as proposed
	SP-19	C-4, C-5, C-6	0-1' and 1-2'	6	Cu, Hg	6	as proposed
D	85F	D-1, D-2, D-3	1-2'	3	PAHs, Ba, Cd, Cu, Pb, Zn	3	as proposed
G	83	G-1, G-2	0-2' and 2-3'	4	PCBs, Di-N, Cd	4	as proposed
	84	G-3, G-4, G-5	0-2'	3	As, Cd	3	as proposed
I	TP-13	I-1, I-2, I-3	0-2'	3	As	4	added I-1 sample @ 0-1' for As, Ba, Cd, Cu, Mg, Zn
J	TP-15	J-1, J-2, J-3	0-2'	3	As	3	J-1 also analyzed for Zn
IJ	71.1	IJ-1, IJ-2	0-0.5'	3	PAHs	2	location IJ-3 not sampled
K	7	K-1, K-2	0-2' and 2-3'	4	PAHs	4	as proposed
M	TP-27	M-1, M-2	Fill (~0-2') & Native	4	PAHs, Ba, Cd, Cu, Pb	3	sampled 0'-6" & 1'-2'; no fill material at M-2 @ 0-6"
N	TP-28/SP-22	N-1, N-2, N-3	0-1' and 2-3'	6	Ba, Cu	2	proposed locations N-2 and N-3 not sampled
AA	P-60	AA-1, AA-2, AA-3	top Native (~2.5')	3	PAHs, As, Cu, Hg	5	3'-3.5' sampled; added AA-4 @ 1'-2' & 2.5'-3'
AC	P-61/P-44	AC-1, AC-2, AC-3, AC-4	1-2' and 2-3'	8	Cd, Zn	4	locations AC-1 & AC-2 inaccessible
AD	25F/24N	AD-1, AD-2	3', 6', and 9'	6	Zn	1	only AD-2 @ 9' taken due to void spaces
AE	76F	AE-1	top Native (~5')	1	PCB, Cd, Pb	2	sampled 2'-3'; added location AE-2 @ 3'-5'
AF	22	AF-1, AF-2, AF-3	0-2'	3	Cd, Zn	2	location AF-1 inaccessible
AG, AH	13/14	AG-1, AG-2, AG-3	top Native (~1-3')	3	Di-N, As, Cu, Mn, Zn	3	as proposed except AG-1 sampled at 7'
AJ	19N/77	AJ-1, AJ-2, AJ-3, AJ-4, AJ-5	1-2'	5	Cd, Zn	5	AJ-5 also analyzed for PCBs, Di-N, Cu, Hg
		AJ-5	4-5'	1	Cd	1	as proposed
	29	AJ-6, AJ-7, AJ-8	1-2'	3	PCBs, Cd	3	as proposed
AK	17F/18	AK-1	1-2'	1	PAHs, Mn	1	as proposed
		AK-2, AK-3, AK-4	1-2'	3	PAHs	2	location AK-3 inaccessible
	28	AK-5	0-2', 4-6'	2	PAHs, Di-N, PCBs, Cd, Zn	2	as proposed
		AK-6	0-2', 4-6'	2	PAHs, Di-N, PCBs, Cd, Zn, Cr*	2	as proposed except only Cr VI analyzed
AL	58F/58.1	AL-1	0-2' and 2-4'	2	PAHs, Di-N, PCBs, Cd, Zn, Cr*	2	as proposed except only Cr VI analyzed
		AL-2	0-2' and 2-4'	2	PAHs, Di-N, PCBs, Cd, Zn	2	as proposed
AM	56N	AM-1	1-3' and 4-6'	2	PAHs, Di-N, Cd, Cr*, Mn	2	as proposed
		AM-2, AM-3	0-2'	2	PAHs, Di-N, As, Cd, Cr*, Mn, Zn	2	as proposed
BA	P-43	BA-1, BA-2	0-2'	2	Mn	2	as proposed
BB	53F	BB-1	0-2' and 2-4'	2	PAHs, Di-N	1	foundry sand to 2' deep sample not taken
BC	52F,52N	BC-1, BC-2, BC-3	3', 6', and 9'	9	Benzene, Di-N, As	11	added BC-4 samples @ 3.5' & 9'
BD	54F	BD-1, BD-2, BD-3	3' and 6'	6	PAHs	6	as proposed
BF	1F	BF-1, BF-2, BF-3	1-2'	3	Ba, Cr*	3	as proposed
BG	2F	BG-1, BG-2	1-2'	2	Ba, Cr*	2	as proposed
BH	P-94	BH-1	0-2'	1	Cd, Zn	1	as proposed
BI	51F	BI-1	3-5'	1	Cd, Zn	1	as proposed
BK	49F	BK-1	0-2'	1	Di-N	1	as proposed
			Total # of proposed samples	125	**Total # of actual samples**	**113**	

Notes:
PAHs - polycyclic aromatic hydrocarbons, Method 8270
PCBs - polychlorinated biphenyls, Method 8082
Di-N - di-n-butylphthalate, Method 8270
As - Arsenic, Ba - Barium, Cd - Cadmium, Cu - Copper
Cr* - Chromium total, Chromium III and Chromium VI
Hg - Mercury, Pb - Lead, Mn - Manganese, Zn - Zinc

TABLE 2
SUPPLEMENTAL INVESTIGATION
SAMPLE LOCATION SURVEY COORDINATES
PAGE 1 OF 2

Northing	Easting	Surface Elevation (feet amsl)	Supplemental Sample ID
10296.73	3206.16		A-1
10356.98	3292.39		A-2
10409.9	3368.16		A-3
10263.56	3555.24		B-1
9514.11	4137.57		C-1
9618.5	4157.1		C-2
9587.82	4274.07		C-3
9590.21	4047.08		C-4
9678.35	4119.33		C-5
9673.41	4207.16		C-6
9735.44	4226.41		D-1
9728.55	4193.18		D-2
9771.98	4200.89		D-3
9873.19	4772.46		G-1
9922.1	4783.15		G-2
9907.03	4881.07		G-3
9935.33	4819.22		G-4
9876.29	4837.07		G-5
10373.38	4846.74		I-1
10372.62	4804.14		I-2
10402.1	4810.76		I-3
10497.51	5019.5		J-1
10482.36	4973.14		J-2
10522.76	4977.15		J-3
10287.8966	4506.6712	597.321	K-1
10362.5284	4492.975	597.473	K-2
11108.17	4135.01		M-1
11086.98	4104.67		M-2
11045.01	4065.79		N-1
11013.29	3919.55		N-2
10901.74	3860.07		N-3
10567.8458	4320.3162	596.635	AA-1
10538.17	4288.61		AA-2
10557.4	4247.5		AA-3
10538	4346		AA-4*
10468.275	4033.7986	600.252	AC-3
10328.77	4054.83		AC-4
10356.7972	4233.6304	600.369	AD-2
10302.0316	4181.6209	600.26	AE-1
10291.4594	4206.9764	600.242	AE2
10248.5521	4272.4985	596.127	AF-2
10218.6066	4257.8276	595.611	AF-3
10056.5203	4305.1768	600.811	AG-1
10031.3574	4224.3332	600.756	AG-2
10075.228	4205.4175	600.392	AG-3
10117.7307	4143.1503	600.431	AJ-1
10174.2446	4141.679	600.394	AJ-2
10220.6552	4089.1778	600.048	AJ-3

Notes
Suvey coordinates are referenced to existing site survey
amsl = above mean sea level
Ref: Foit-Albert 6/19/08
*Location not measured with survey equipment

TABLE 2
SUPPLEMENTAL INVESTIGATION
SAMPLE LOCATION SURVEY COORDINATES
PAGE 2 OF 2

Northing	Easting	Surface Elevation (feet amsl)	Supplemental Sample ID
10319	3999		AJ-4*
10477.5787	3887.2864	599.986	AJ-5
10562.65	3916.74		AJ-6
10518.12	3899.26		AJ-7
10534.65	3871.59		AJ-8
10209.7801	4008.317	600.451	AK-1
10239.747	4014.3018	600.196	AK-2
10338.4557	3930.6175	600.349	AK4
10382.1206	3899.621	600.055	AK5
10456.29	3827.47		AK-6
10445.77	3793.11		AL-1
10388.06	3791.31		AL-2
10538.9	3775.21		AM-1
10534.38	3722.95		AM-2
10477.8515	3683.9844	600.175	AM-3
10559.4108	3616.739	599.835	BA-1
10541.125	3641.7388	600.06	BA-2
10647.6661	3785.5232	600.045	BB-1
10656.1074	3868.6963	600.222	BC-1
10618.375	3876.6337	600.47	BC-2
10595.079	3891.9004	599.906	BC-3
10683.2888	3841.7155	599.411	BC-4
10641	3838		BC-5*
10598.8934	3789.1341	600.266	BD-1
10571.6435	3824.874	600.342	BD-2
10574.67	3869.81		BD-3
9917.7118	4410.5365	600.5651	BF-1
9895.9167	4423.6567	600.3039	BF-2
9906.1298	4463.7581	598.1028	BF-3
9971.7164	4431.1209	600.6296	BG-1
9976.3255	4474.1273	600.5739	BG-2
10336.54	4418.02		BH-1
10552.33	3979.12		BI-1
10688.66	3967.34		BK-1
10049.0459	4561.0813	600.66	EX
10677.88	4767.37		IJ-1
10635.48	4776.42		IJ-2

Notes
Suvey coordinates are referenced to existing site survey
amsl = above mean sea level
Ref: Foit-Albert 6/19/08
*Location not measured with survey equipment

TABLE 3
AREA A
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 1 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	A-1	A-1	A-2	A-2	A-3	A-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 1'	1' - 3'	0 - 1'	1' - 3'	0 - 1'	1' - 3'
Compound	**Residential**								
SVOCs	Concentration in mg/kg			Concentration in mg/kg					
Acenaphthylene	100	500	NS	ND	ND	ND	ND	ND	ND
Acenaphthene	100	500	NS	ND	ND	ND	ND	ND	ND
Anthracene	100	500	NS	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	1	1	NS	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	100	500	NS	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	1	5.6	NS	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1	5.6	NS	0.044 J	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	3.9	56	NS	ND	ND	ND	ND	ND	ND
Chrysene	3.9	56	NS	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	ND	ND	ND	ND	ND
Fluorene	100	500	NS	ND	ND	ND	ND	ND	ND
Fluoranthene	100	500	NS	0.053 J	ND	ND	ND	0.047 J	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	ND	ND	ND	ND	ND
Naphthalene	100	500	NS	ND	ND	ND	ND	ND	ND
Phenanthrene	100	500	NS	ND	ND	ND	ND	ND	ND
Pyrene	100	500	NS	0.049 J	ND	ND	ND	0.044 J	ND

Notes:
J = Estimated Value
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA B
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 2 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	B-1
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/25/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	2' - 4'
Compound	**Residential**			
Metals	Concentration in mg/kg			Concentration in mg/kg
Cadmium	4.3	9.3	NS	ND

Notes:
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA C
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 3 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	C-1	C-2	C-3	C-4	C-4	C-5	C-5	C-6	C-6
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	1' - 2'	0 - 2'	0 - 2'	0 - 1'	1' - 2'	0 - 1'	1' - 2'	0 - 1'	1' - 2'
Compound	**Residential**											
SVOCs	Concentration in mg/kg			Concentration in mg/kg								
Acenaphthylene	100	500	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	100	500	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	1	1	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	100	500	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	1	5.6	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	1	5.6	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	3.9	56	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	3.9	56	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	100	500	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	NS	0.046 J	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	100	500	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Metals	Concentration in mg/kg			Concentration in mg/kg								
Arsenic	16	16	NS	4.93	10.6	ND	NA	NA	NA	NA	NA	NA
Barium	400	400	NS	202	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4.3	9.3	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (total)	110	400	NS	29.6	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (hexavalent)	110	400	NS	ND	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (trivalent)	180	1500	NS	38	NA	NA	NA	NA	NA	NA	NA	NA
Copper	270	270	NS	32.5	NA	NA	**1580**	13.1	21.2	21.9	25.9	23.7
Lead	400	1000	NS	15.7	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.81	2.8	NS	ND	NA	NA	0.606	0.027	0.028	ND	0.049	0.016
Nickel	310	310	NS	37.8 N	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	10000	10000	NS	132	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
J = Estimated Value
N = Presumptive evidence of a compound
NA = Not Analyzed
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA D
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 4 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	D-1	D-2	D-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/19/2008	6/19/2008	6/19/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	1' - 2'	1' - 2'	1' - 2'
Compound	**Residential**					
SVOCs	Concentration in mg/kg			Concentration in mg/kg		
Acenaphthylene	100	500	NS	ND	ND	ND
Acenaphthene	100	500	NS	ND	ND	ND
Anthracene	100	500	NS	ND	0.045 J	ND
Benzo[a]pyrene	1	1	NS	ND	0.065 J	ND
Benzo[g,h,i]perylene	100	500	NS	ND	ND	ND
Benzo[a]anthracene	1	5.6	NS	ND	0.083 J	ND
Benzo[b]fluoranthene	1	5.6	NS	ND	0.086 J	ND
Benzo[k]fluoranthene	3.9	56	NS	ND	ND	ND
Chrysene	3.9	56	NS	ND	0.081 J	ND
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	ND	ND
Fluorene	100	500	NS	ND	ND	ND
Fluoranthene	100	500	NS	ND	0.2 J	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	ND	ND
Naphthalene	100	500	NS	ND	ND	ND
Phenanthrene	100	500	NS	ND	0.17 J	ND
Pyrene	100	500	NS	ND	0.17 J	ND
Metals	Concentration in mg/kg			Concentration in mg/kg		
Barium	400	400	NS	186	164	88.2
Cadmium	4.3	9.3	NS	ND	ND	ND
Copper	270	270	NS	28.9	33.9	24.8
Lead	400	1000	NS	14.7	15.5	19
Zinc	10000	10000	NS	97.5	101	90.3

Notes:
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA G
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
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Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	G-1	G-1	G-2	G-2	G-3	G-4	G-5
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 2'	2' - 3'	0 - 2'	2' - 3'	0 - 2'	0 - 2'	0 - 2'
Compound	**Residential**									
SVOCs	Concentration in mg/kg			Concentration in mg/kg						
Di-n-butylphthalate	NS	NS	8.1	43 D	1.1	2	0.51	NA	NA	NA
PCBs	Concentration in mg/kg			Concentration in mg/kg						
Aroclor 1016	1	N/A	1 or 10*	ND	ND	ND	ND	NA	NA	NA
Aroclor 1221	1	N/A	1 or 10*	ND	ND	ND	ND	NA	NA	NA
Aroclor 1232	1	N/A	1 or 10*	ND	ND	ND	ND	NA	NA	NA
Aroclor 1242	1	N/A	1 or 10*	ND	ND	ND	ND	NA	NA	NA
Aroclor 1248	1	N/A	1 or 10*	ND	ND	ND	ND	NA	NA	NA
Aroclor 1254	1	N/A	1 or 10*	ND	ND	ND	ND	NA	NA	NA
Aroclor 1260	1	N/A	1 or 10*	ND	ND	ND	ND	NA	NA	NA
Total PCBs	1	N/A	1 or 10*	0	0	0	0	NA	NA	NA
Metals	Concentration in mg/kg			Concentration in mg/kg						
Arsenic	16	16	NS	NA	NA	NA	NA	5.19	**28.2**	9.17
Cadmium	4.3	9.3	NS	ND	ND	ND	ND	ND	ND	2.21

Notes:
D = Diluted
NA = Not Analyzed
N/A = Not Applicable
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA I
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 6 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	I-1	I-1	I-2	I-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/23/2008	6/23/2008	6/23/2008	6/23/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 1'	1' - 2'	0 - 2'	0 - 2'
Compound	**Residential**						
Metals	Concentration in mg/kg			Concentration in mg/kg			
Arsenic	16	16	NS	1.2	2.32	**20.7**	4.51
Barium	400	400	NS	177	NA	NA	NA
Cadmium	4.3	9.3	NS	ND	NA	NA	NA
Copper	270	270	NS	8.07	NA	NA	NA
Manganese	2000	10000	NS	1540	NA	NA	NA
Zinc	10000	10000	NS	20.4	NA	NA	NA

Notes:

NA = Not Analyzed

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA J
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 7 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	J-1	J-2	J-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/23/2008	6/23/2008	6/23/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 1.8'	0 - 2'	0 - 2'
Compound	**Residential**					
Metals	Concentration in mg/kg			Concentration in mg/kg		
Arsenic	16	16	NS	2.07	9.09	4.98
Zinc	10000	10000	NS	16	NA	NA

Notes:

NA = Not Analyzed

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA IJ
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 8 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	IJ-1	IJ-2	IJ-3*
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/23/2008	6/23/2008	6/23/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 6"	0 - 6"	
Compound	**Residential**					
SVOCs	Concentration in mg/kg			Concentration in mg/kg		
Acenaphthylene	100	500	NS	ND	ND	
Acenaphthene	100	500	NS	ND	ND	
Anthracene	100	500	NS	ND	ND	
Benzo[a]pyrene	1	1	NS	ND	ND	
Benzo[g,h,i]perylene	100	500	NS	ND	ND	
Benzo[a]anthracene	1	5.6	NS	ND	ND	
Benzo[b]fluoranthene	1	5.6	NS	ND	**1.1 J**	
Benzo[k]fluoranthene	3.9	56	NS	ND	ND	
Chrysene	3.9	56	NS	ND	ND	
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	ND	
Fluorene	100	500	NS	ND	ND	
Fluoranthene	100	500	NS	ND	2.1 J	
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	ND	
Naphthalene	100	500	NS	ND	ND	
Phenanthrene	100	500	NS	ND	1.3 J	
Pyrene	100	500	NS	ND	1.8 J	

Notes:
J = Estimated Value
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS
*Proposed sample location was inaccessible.

TABLE 3
AREA K
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
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Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	K-1	K-1	K-2	K-2
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/23/2008	6/23/2008	6/23/2008	6/23/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 2'	2' - 3'	0 - 2'	2' - 3'
Compound	**Residential**						
SVOCs	Concentration in mg/kg			Concentration in mg/kg			
Acenaphthylene	100	500	NS	ND	ND	0.12 J	ND
Acenaphthene	100	500	NS	ND	ND	ND	ND
Anthracene	100	500	NS	ND	ND	0.04 J	ND
Benzo[a]pyrene	1	1	NS	0.059 J	ND	0.59	ND
Benzo[g,h,i]perylene	100	500	NS	ND	ND	0.31 J	ND
Benzo[a]anthracene	1	5.6	NS	0.073 J	ND	0.37	ND
Benzo[b]fluoranthene	1	5.6	NS	0.087 J	ND	0.96	ND
Benzo[k]fluoranthene	3.9	56	NS	ND	ND	0.23 J	ND
Chrysene	3.9	56	NS	0.072 J	ND	0.32 J	ND
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	ND	0.06 J	ND
Fluorene	100	500	NS	ND	ND	ND	ND
Fluoranthene	100	500	NS	0.14 J	ND	0.16 J	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	ND	0.28 J	ND
Naphthalene	100	500	NS	ND	ND	0.11 J	ND
Phenanthrene	100	500	NS	0.15 J	ND	0.065 J	ND
Pyrene	100	500	NS	0.14 J	ND	0.25 J	ND

Notes:

J = Estimated Value

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA M
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 10 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	M-1	M-1	M-2*	M-2
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/23/2008	6/23/2008	6/23/2008	6/23/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 6"	1' - 2'	0 - 6"	1' - 2'
Compound	**Residential**						
SVOCs	Concentration in mg/kg			Concentration in mg/kg			
Acenaphthylene	100	500	NS	ND	ND		ND
Acenaphthene	100	500	NS	7.8	ND		ND
Anthracene	100	500	NS	15	ND		ND
Benzo[a]pyrene	1	1	NS	**19**	ND		ND
Benzo[g,h,i]perylene	100	500	NS	8.6	ND		ND
Benzo[a]anthracene	1	5.6	NS	**23**	ND		ND
Benzo[b]fluoranthene	1	5.6	NS	**28**	ND		ND
Benzo[k]fluoranthene	3.9	56	NS	**7.7**	ND		ND
Chrysene	3.9	56	NS	**20**	ND		ND
Dibenzo(a,h)anthracene	0.33	0.56	NS	**2.3 J**	ND		ND
Fluorene	100	500	NS	7.6	ND		ND
Fluoranthene	100	500	NS	42 D	ND		ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	**8.5**	ND		ND
Naphthalene	100	500	NS	10	ND		ND
Phenanthrene	100	500	NS	49 D	ND		ND
Pyrene	100	500	NS	41 D	ND		ND
Metals	Concentration in mg/kg			Concentration in mg/kg			
Barium	400	400	NS	143	170		101
Cadmium	4.3	9.3	NS	ND	ND		ND
Copper	270	270	NS	169	35.6		18
Lead	400	1000	NS	162	70.2		69.3

Notes:
D = Diluted
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS
*No fill material existed at sample location M-2, so sample could not be collected.

TABLE 3
AREA N
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	N-1	N-1	N-2*	N-2*	N-3*	N-3*
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/23/2008	6/23/2008	6/23/2008	6/23/2008	6/23/2008	6/23/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 1'	2' - 3'	0 - 1'	2' - 3'	0 - 1'	2' - 3'
Compound	**Residential**								
Metals	Concentration in mg/kg			Concentration in mg/kg					
Barium	400	400	NS	164	185				
Copper	270	270	NS	61.6	36.1				

Notes:
D = Diluted
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS
*Proposed sample location was inaccessible.

TABLE 3
AREA AA
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 12 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AA-1	AA-2	AA-3	AA-4	AA-4
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/23/2008	6/23/2008	6/23/2008	6/23/2008	6/26/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	3' - 3.5'	3' - 3.5'	3' - 3.5'	1' - 2'	2.5' - 3'
Compound	**Residential**							
SVOCs	Concentration in mg/kg			Concentration in mg/kg				
Acenaphthylene	100	500	NS	ND	ND	ND	ND	ND
Acenaphthene	100	500	NS	ND	ND	0.051 J	ND	ND
Anthracene	100	500	NS	ND	ND	0.089 J	ND	ND
Benzo[a]pyrene	1	1	NS	ND	ND	0.11 J	ND	ND
Benzo[g,h,i]perylene	100	500	NS	ND	ND	0.062 J	ND	ND
Benzo[a]anthracene	1	5.6	NS	ND	ND	0.13 J	ND	ND
Benzo[b]fluoranthene	1	5.6	NS	ND	ND	0.15 J	ND	ND
Benzo[k]fluoranthene	3.9	56	NS	ND	ND	ND	ND	ND
Chrysene	3.9	56	NS	ND	ND	0.12 J	ND	ND
Di-n-butylphthalate	NS	NS	8.1	NA	NA	NA	ND	NA
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	ND	ND	ND	ND
Fluorene	100	500	NS	ND	ND	0.049 J	ND	ND
Fluoranthene	100	500	NS	0.056 J	ND	0.37 J	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	ND	0.059 J	ND	ND
Naphthalene	100	500	NS	ND	ND	ND	0.14 J	ND
Phenanthrene	100	500	NS	ND	ND	0.37 J	0.1 J	ND
Pyrene	100	500	NS	0.045 J	ND	0.3 J	ND	ND
Metals	Concentration in mg/kg			Concentration in mg/kg				
Arsenic	16	16	NS	1.91	ND	ND	**31.2**	4.92
Cadmium	4.3	9.3	NS	NA	NA	NA	ND	NA
Copper	270	270	NS	25.4	27.1	23.7	53.6	31.1
Manganese	2000	10000	NS	NA	NA	NA	191	NA
Mercury	0.81	2.8	NS	0.028	0.015	0.631	0.049	0.021
Zinc	10000	10000	NS	NA	NA	NA	562	NA

Notes:
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA AC
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AC-1*	AC-1*	AC-2*	AC-2*	AC-3	AC-3	AC-4	AC-4
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	1' - 2'	2' - 3'	1' - 2'	2' - 3'	1' - 2'	2' - 3'	1' - 2'	2' - 3'
Compound	**Residential**										
Metals	Concentration in mg/kg			Concentration in mg/kg							
Cadmium	4.3	9.3	NS					3.06	3.87	ND	**7.4**
Zinc	10000	10000	NS					722	928	646	5700 D

Notes:

D = Diluted

J = Estimated Value

NA = Not Analyzed

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

*Proposed sample location was inaccessible.

TABLE 3
AREA AD
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AD-1*	AD-1*	AD-1*	AD-2*	AD-2*	AD-2
Date Sampled	**Part 375**	**Part 375**	**TAGM**						7/31/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	3'	6'	9'	3'	6'	7.5'-8.5'
Compound	**Residential**								
Metals	Concentration in mg/kg			Concentration in mg/kg					
Zinc	10000	10000	NS						**14700 D**

Notes:

D = Diluted

J = Estimated Value

NA = Not Analyzed

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

* = Void spaces to depth so no samples taken

TABLE 3
AREA AE
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AE-1	AE-2
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/20/2008	6/20/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	2' - 3'	3' - 5'
Compound	**Residential**				
VOCs	Concentration in mg/kg				ND*
SVOCs	Concentration in mg/kg				
Acenaphthylene	100	500	NS	NA	ND
Acenaphthene	100	500	NS	NA	0.075 J
Anthracene	100	500	NS	NA	0.064 J
Benzo[a]pyrene	1	1	NS	NA	ND
Benzo[g,h,i]perylene	100	500	NS	NA	ND
Benzo[a]anthracene	1	5.6	NS	NA	0.041 J
Benzo[b]fluoranthene	1	5.6	NS	NA	ND
Benzo[k]fluoranthene	3.9	56	NS	NA	ND
Chrysene	3.9	56	NS	NA	0.049 J
Di-n-butylphthalate	NS	NS	8.1	NA	0.2 J
Dibenzo(a,h)anthracene	0.33	0.56	NS	NA	ND
Fluorene	100	500	NS	NA	0.15 J
Fluoranthene	100	500	NS	NA	0.15 J
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	NA	ND
Naphthalene	100	500	NS	NA	0.095 J
Phenanthrene	100	500	NS	NA	0.3 J
Pyrene	100	500	NS	NA	0.15 J
PCBs	Concentration in mg/kg			Concentration in mg/kg	
Aroclor 1016	1	N/A	1 or 10*	ND	ND
Aroclor 1221	1	N/A	1 or 10*	ND	ND
Aroclor 1232	1	N/A	1 or 10*	ND	ND
Aroclor 1242	1	N/A	1 or 10*	ND	ND
Aroclor 1248	1	N/A	1 or 10*	ND	ND
Aroclor 1254	1	N/A	1 or 10*	ND	**1.2 E**
Aroclor 1260	1	N/A	1 or 10*	ND	ND
Total PCBs	1	N/A	1 or 10*	0	**1.2**
Metals	Concentration in mg/kg			Concentration in mg/kg	
Cadmium	4.3	9.3	NS	ND	**15.2**
Lead	400	1000	NS	14.1	**626**

Notes:
E = Value exceeds calibration range
NA = Not Analyzed
ND = Not detected above laboratory MDL
N/A = Not Applicable; NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA AF
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 16 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AF-2	AF-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/25/2008	6/25/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	1.5' - 2'	0 - 2'
Compound	**Residential**				
Metals	Concentration in mg/kg			Concentration in mg/kg	
Cadmium	4.3	9.3	NS	**15.7**	**6.16**
Zinc	10000	10000	NS	**18000 D**	**10400 D**

Notes:
D = Diluted
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
N/A = Not Applicable; NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREAS AG & AH
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 17 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AG-1	AG-2	AG-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/25/2008	6/25/2008	6/25/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	7'	2' - 2.5'	1.5' - 2'
Compound	**Residential**					
SVOCs	Concentration in mg/kg			Concentration in mg/kg		
Di-n-butylphthalate	NS	NS	8.1	ND	ND	ND
Metals	Concentration in mg/kg			Concentration in mg/kg		
Arsenic	16	16	NS	4.29	4.88	3.82
Copper	270	270	NS	27	28	29.2
Manganese	2000	10000	NS	560	172	472
Zinc	10000	10000	NS	**96200 D**	4930 D	**57200 D**

Notes:

D = Diluted

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA AJ
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AJ-1	AJ-2	AJ-3	AJ-4	AJ-5	AJ-5	AJ-6	AJ-7	AJ-8
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/19/2008	6/19/2008	6/20/2008	6/26/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	1' - 2'	1' - 2'	1' - 2'	1.5' - 2'	1' - 2'	4' - 5'	1' - 2'	1' - 2'	1' - 2'
Compound	**Residential**											
SVOCs	Concentration in mg/kg			Concentration in mg/kg								
Di-n-butylphthalate	NS	NS	8.1	NA	NA	NA	NA	ND	NA	NA	NA	NA
PCBs	Concentration in mg/kg			Concentration in mg/kg								
Aroclor 1016	1	N/A	1 or 10*	NA	NA	NA	NA	ND	NA	ND	ND	ND
Aroclor 1221	1	N/A	1 or 10*	NA	NA	NA	NA	ND	NA	ND	ND	ND
Aroclor 1232	1	N/A	1 or 10*	NA	NA	NA	NA	ND	NA	ND	ND	ND
Aroclor 1242	1	N/A	1 or 10*	NA	NA	NA	NA	ND	NA	ND	ND	ND
Aroclor 1248	1	N/A	1 or 10*	NA	NA	NA	NA	ND	NA	ND	ND	ND
Aroclor 1254	1	N/A	1 or 10*	NA	NA	NA	NA	ND	NA	0.56 E	ND	ND
Aroclor 1260	1	N/A	1 or 10*	NA	NA	NA	NA	ND	NA	ND	ND	ND
Total PCBs	1	N/A	1 or 10*	NA	NA	NA	NA	0	NA	0.56	0	0
Metals	Concentration in mg/kg			Concentration in mg/kg								
Cadmium	4.3	9.3	NS	ND	ND	**4.51**	ND	0.367 J	ND	3.73	1.43	0.997
Copper	270	270	NS	NA	NA	NA	NA	25.3	NA	NA	NA	NA
Mercury	0.81	2.8	NS	NA	NA	NA	NA	0.071	NA	NA	NA	NA
Zinc	10000	10000	NS	911	557	**17200 D**	120	1010	NA	NA	NA	NA

Notes:
D = Diluted
J = Estimated Value
NA = Not Analyzed
N/A = Not Applicable
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA AK
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 19 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AK-1	AK-2	AK-3*	AK-4	AK-5	AK-5	AK-6	AK-6
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/19/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008	6/20/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	1' - 2'	1' - 2'	1' - 2'	1' - 2'	0 - 2'	4' - 6'	0 - 2'	4' - 6'
Compound	**Residential**										
SVOCs	Concentration in mg/kg			Concentration in mg/kg							
Acenaphthylene	100	500	NS	ND	ND		ND	ND	ND	ND	ND
Acenaphthene	100	500	NS	ND	0.33 J		ND	ND	0.19 J	0.092 J	ND
Anthracene	100	500	NS	ND	0.49		0.049 J	0.077 J	0.27 J	0.16 J	ND
Benzo[a]pyrene	1	1	NS	ND	**1.5**		0.32 J	0.49	0.28 J	0.51	0.055 J
Benzo[g,h,i]perylene	100	500	NS	ND	0.92		0.16 J	0.31 J	0.1 J	0.23 J	ND
Benzo[a]anthracene	1	5.6	NS	ND	**1.5**		0.27 J	0.4	0.44 J	0.52	0.071 J
Benzo[b]fluoranthene	1	5.6	NS	ND	**1.9**		0.55	0.87	0.39 J	0.61	0.077 J
Benzo[k]fluoranthene	3.9	56	NS	ND	0.58		0.12 J	0.13 J	0.14 J	0.26 J	ND
Chrysene	3.9	56	NS	ND	1.4		0.26 J	0.44	0.32 J	0.4	0.057 J
Di-n-butylphthalate	NS	NS	8.1	NA	NA		NA	ND	ND	0.85	ND
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	0.19 J		0.049 J	0.14 J	ND	0.057 J	ND
Fluorene	100	500	NS	ND	0.19 J		ND	ND	0.18 J	0.057 J	ND
Fluoranthene	100	500	NS	0.45 J	3.1 D		0.29 J	0.45	0.92	0.82	0.15 J
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	**0.88**		0.14 J	0.29 J	0.098 J	0.21 J	ND
Naphthalene	100	500	NS	ND	0.47		0.18 J	0.19 J	0.23 J	0.45	0.05 J
Phenanthrene	100	500	NS	ND	1.7		0.25 J	0.38	1.2	0.7	0.14 J
Pyrene	100	500	NS	ND	2.4 D		0.31 J	0.5	0.74	0.79	0.13 J
PCBs	Concentration in mg/kg			Concentration in mg/kg							
Aroclor 1016	1	N/A	1 or 10*	NA	NA		NA	ND	ND	ND	ND
Aroclor 1221	1	N/A	1 or 10*	NA	NA		NA	ND	ND	ND	ND
Aroclor 1232	1	N/A	1 or 10*	NA	NA		NA	ND	ND	ND	ND
Aroclor 1242	1	N/A	1 or 10*	NA	NA		NA	ND	ND	ND	ND
Aroclor 1248	1	N/A	1 or 10*	NA	NA		NA	ND	ND	ND	ND
Aroclor 1254	1	N/A	1 or 10*	NA	NA		NA	ND	ND	ND	ND
Aroclor 1260	1	N/A	1 or 10*	NA	NA		NA	ND	ND	ND	ND
Total PCBs	1	N/A	1 or 10*	NA	NA		NA	0	0	0	0
Metals	Concentration in mg/kg			Concentration in mg/kg							
Cadmium	4.3	9.3	NS	NA	NA		NA	ND	1.97	0.163 J	**7.9**
Chromium (total)	110	400	NS	NA	NA		NA	NA	NA	NA	NA
Chromium (hexavalent)	110	400	NS	NA	NA		NA	NA	NA	ND	ND
Chromium (trivalent)	180	1500	NS	NA	NA		NA	NA	NA	NA	NA
Manganese	2000	10000	NS	1080	NA		NA	NA	NA	NA	NA
Zinc	10000	10000	NS	NA	NA		NA	5420 D	**25500 D**	404	**19600 D**

Notes:
D = Diluted
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
N/A = Not Applicable; NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS
*Proposed sample location was inaccessible.

TABLE 3 AREA AL
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AL-1	AL-1	AL-2	AL-2
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/20/2008	6/20/2008	6/20/2008	6/20/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 2'	2' - 4'	0 - 2'	2' - 4'
Compound	**Residential**						
SVOCs	Concentration in mg/kg			Concentration in mg/kg			
Acenaphthylene	100	500	NS	ND	ND	ND	ND
Acenaphthene	100	500	NS	ND	ND	ND	0.051 J
Anthracene	100	500	NS	0.091 J	ND	ND	0.14 J
Benzo[a]pyrene	1	1	NS	0.52	0.082 J	ND	0.28 J
Benzo[g,h,i]perylene	100	500	NS	0.23 J	0.057 J	ND	0.14 J
Benzo[a]anthracene	1	5.6	NS	0.62	0.088 J	ND	0.41 J
Benzo[b]fluoranthene	1	5.6	NS	0.77	0.1 J	ND	0.39 J
Benzo[k]fluoranthene	3.9	56	NS	0.24 J	0.043 J	ND	0.15 J
Chrysene	3.9	56	NS	0.57	0.082 J	ND	0.33 J
Di-n-butylphthalate	NS	NS	8.1	0.11 J	0.42 J	ND	0.58
Dibenzo(a,h)anthracene	0.33	0.56	NS	0.073 J	ND	ND	ND
Fluorene	100	500	NS	ND	ND	ND	0.049 J
Fluoranthene	100	500	NS	0.88	0.13 J	ND	0.8
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	0.22 J	0.058 J	ND	0.15 J
Naphthalene	100	500	NS	0.085 J	ND	0.05 J	ND
Phenanthrene	100	500	NS	0.35 J	0.076 J	ND	0.61
Pyrene	100	500	NS	0.84	0.13 J	ND	0.73
PCBs	Concentration in mg/kg			Concentration in mg/kg			
Aroclor 1016	1	N/A	1 or 10*	ND	ND	ND	ND
Aroclor 1221	1	N/A	1 or 10*	ND	ND	ND	ND
Aroclor 1232	1	N/A	1 or 10*	ND	ND	ND	ND
Aroclor 1242	1	N/A	1 or 10*	ND	ND	ND	ND
Aroclor 1248	1	N/A	1 or 10*	ND	ND	ND	ND
Aroclor 1254	1	N/A	1 or 10*	ND	0.11	ND	ND
Aroclor 1260	1	N/A	1 or 10*	ND	ND	ND	ND
Total PCBs	1	N/A	1 or 10*	0	0.11	0	0
Metals	Concentration in mg/kg			Concentration in mg/kg			
Cadmium	4.3	9.3	NS	3.05	0.235 J	3.91	4.23
Chromium (total)	110	400	NS	NA	NA	NA	NA
Chromium (hexavalent)	110	400	NS	ND	ND	NA	NA
Chromium (trivalent)	180	1500	NS	NA	NA	NA	NA
Zinc	10000	10000	NS	749	419	477	713

Notes: J = Estimated Value
N/A = Not Applicable; NS = No standard
NA = Not Analyzed
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
ND = Not detected above laboratory MDL
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA AM
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
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Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	AM-1	AM-1	AM-2	AM-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/19/2008	6/19/2008	6/19/2008	6/19/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	1' - 3'	4' - 6'	0 - 2'	0 - 2'
Compound	**Residential**						
SVOCs	Concentration in mg/kg			Concentration in mg/kg			
Acenaphthylene	100	500	NS	ND	ND	ND	ND
Acenaphthene	100	500	NS	ND	ND	ND	ND
Anthracene	100	500	NS	ND	ND	ND	ND
Benzo[a]pyrene	1	1	NS	ND	ND	ND	ND
Benzo[g,h,i]perylene	100	500	NS	ND	ND	ND	ND
Benzo[a]anthracene	1	5.6	NS	ND	ND	ND	ND
Benzo[b]fluoranthene	1	5.6	NS	ND	ND	ND	ND
Benzo[k]fluoranthene	3.9	56	NS	ND	ND	ND	ND
Chrysene	3.9	56	NS	ND	ND	ND	ND
Di-n-butylphthalate	NS	NS	8.1	ND	ND	0.22 J	0.047 J
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	ND	ND	ND
Fluorene	100	500	NS	ND	ND	ND	ND
Fluoranthene	100	500	NS	ND	ND	0.25 J	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	ND	ND	ND
Naphthalene	100	500	NS	ND	ND	ND	ND
Phenanthrene	100	500	NS	0.055 J	ND	0.46 J	ND
Pyrene	100	500	NS	ND	ND	0.25 J	ND
Metals	Concentration in mg/kg			Concentration in mg/kg			
Arsenic	16	16	NS	NA	4.98	1.57	6.87
Cadmium	4.3	9.3	NS	ND	ND	ND	ND
Chromium (total)	110	400	NS	12.2	27.5	7.78	34.6
Chromium (hexavalent)	110	400	NS	ND	ND	ND	ND
Chromium (trivalent)	180	1500	NS	16.2	36.4	8.8	44.4
Manganese	2000	10000	NS	114	576	807	714
Zinc	10000	10000	NS	NA	NA	77.6	110

Notes:
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA BA
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 22 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BA-1	BA-2
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/24/2008	6/24/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 2'	0 - 2'
Compound	**Residential**				
Metals	Concentration in mg/kg			Concentration in mg/kg	
Manganese	2000	10000	NS	836	244

Notes:
D = Diluted
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA BB
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BB-1	BB-1*
Date Sampled	**Part 375**	**Part 375**	**TAGM**	7/31/2008	7/31/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 2'	2' - 4'
Compound	**Residential**				
SVOCs	Concentration in mg/kg			Concentration in mg/kg	
Acenaphthylene	100	500	NS	0.093 J	
Acenaphthene	100	500	NS	0.12 J	
Anthracene	100	500	NS	0.5	
Benzo[a]pyrene	1	1	NS	**1.2**	
Benzo[g,h,i]perylene	100	500	NS	0.72	
Benzo[a]anthracene	1	5.6	NS	**1.3**	
Benzo[b]fluoranthene	1	5.6	NS	**1.5**	
Benzo[k]fluoranthene	3.9	56	NS	0.48	
Chrysene	3.9	56	NS	1.2	
Di-n-butylphthalate	NS	NS	8.1	0.4	
Dibenzo(a,h)anthracene	0.33	0.56	NS	0.16 J	
Fluorene	100	500	NS	0.19 J	
Fluoranthene	100	500	NS	2.7 D	
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	**0.74**	
Naphthalene	100	500	NS	0.46	
Phenanthrene	100	500	NS	1.7	
Pyrene	100	500	NS	2.1	

Notes:
D = Diluted
J = Estimated Value
NA = Not Analyzed
ND = Not detected above laboratory MDL
N/A = Not Applicable; NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS
* = No sample taken at depth since foundry sand ended at a 2' depth.

TABLE 3
AREA BC
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BC-1	BC-1	BC-1	BC-2	BC-2	BC-2	BC-3	BC-3	BC-3	BC-4	BC-4
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008	6/24/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	3'	6'	7.5' - 8'	3'	6'	9'	3'	6'	9'	3.5'	9'
Compound	**Residential**													
VOCs	Concentration in mg/kg			Concentration in mg/kg										
Benzene	4.8	44	NS	ND	0.021 J	0.33	ND	ND	ND	ND	ND	ND	ND	ND
SVOCs	Concentration in mg/kg			Concentration in mg/kg										
Di-n-butylphthalate	NS	NS	8.1	ND	ND	ND	ND	ND	ND	ND	0.045 J	ND	17 D	0.11 J
Metals	Concentration in mg/kg			Concentration in mg/kg										
Arsenic	16	16	NS	2.62	ND	ND	3.24	3.37	1.84	2.79	2.93	3.16	ND	ND

Notes:

D = Diluted

J = Estimated Value

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA BD
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 25 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BD-1	BD-1	BD-2	BD-2	BD-3	BD-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/24/2008	6/25/2008	6/24/2008	6/24/2008	7/31/2008	7/31/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	3'	6'	3'	6'	3'	4.5'-6.5'
Compound	**Residential**								
SVOCs	Concentration in mg/kg			Concentration in mg/kg					
Acenaphthylene	100	500	NS	ND	ND	ND	ND	ND	ND
Acenaphthene	100	500	NS	ND	ND	ND	ND	ND	ND
Anthracene	100	500	NS	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	1	1	NS	ND	ND	ND	ND	0.067 J	ND
Benzo[g,h,i]perylene	100	500	NS	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	1	5.6	NS	ND	ND	ND	ND	0.073 J	ND
Benzo[b]fluoranthene	1	5.6	NS	ND	ND	ND	ND	0.088 J	ND
Benzo[k]fluoranthene	3.9	56	NS	ND	ND	ND	ND	ND	ND
Chrysene	3.9	56	NS	ND	ND	ND	ND	0.068 J	ND
Dibenzo(a,h)anthracene	0.33	0.56	NS	ND	ND	ND	ND	ND	ND
Fluorene	100	500	NS	ND	ND	ND	ND	ND	ND
Fluoranthene	100	500	NS	ND	ND	ND	ND	0.15 J	ND
Indeno(1,2,3-cd)pyrene	0.5	5.6	NS	ND	ND	ND	ND	ND	ND
Naphthalene	100	500	NS	ND	ND	ND	ND	ND	ND
Phenanthrene	100	500	NS	ND	ND	ND	ND	0.11 J	ND
Pyrene	100	500	NS	ND	ND	ND	ND	0.11 J	ND

Notes:
J = Estimated Value
ND = Not detected above laboratory MDL
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA BF
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 26 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BF-1	BF-2	BF-3
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/18/2008	6/18/2008	6/18/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	1' - 2'	1' - 2'	1' - 2'
Compound	**Residential**					
Metals	Concentration in mg/kg			Concentration in mg/kg		
Barium	400	400	NS	**444 N**	**514 N**	**462 N**
Chromium (total)	110	400	NS	**219**	**227**	**227**
Chromium (hexavalent)	110	400	NS	ND	ND	ND
Chromium (trivalent)	180	1500	NS	**259**	**258**	**268**

Notes:

N = Presumptive evidence of a compound

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA BG
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 27 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BG-1	BG-2
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/18/2008	6/18/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 2'	0 - 2'
Compound	**Residential**				
Metals	Concentration in mg/kg			Concentration in mg/kg	
Barium	400	400	NS	**477**	**480**
Chromium (total)	110	400	NS	**232**	**176**
Chromium (hexavalent)	110	400	NS	ND	ND
Chromium (trivalent)	180	1500	NS	**275**	**215**

Notes:

D = Diluted

J = Estimated Value

NA = Not Analyzed

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA BH
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 28 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BH-1
Date Sampled	**Part 375**	**Part 375**	**TAGM**	7/31/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 2'
Compound	**Residential**			
Metals	Concentration in mg/kg			Concentration in mg/kg
Cadmium	4.3	9.3	NS	0.571
Zinc	10000	10000	NS	72.4

Notes:

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA BI
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION
PAGE 29 OF 31

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BI-1
Date Sampled	**Part 375**	**Part 375**	**TAGM**	6/20/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	3' - 5'
Compound	**Residential**			
Metals	Concentration in mg/kg			Concentration in mg/kg
Cadmium	4.3	9.3	NS	**9.09**
Zinc	10000	10000	NS	1990

Notes:
NS = No standard
Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective
Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective
Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
AREA BK
SUPPLEMENTAL SOIL SAMPLE RESULTS
SPAULDING FIBRE SITE INVESTIGATION

Sample Identification	**NYSDEC**	**NYSDEC**	**NYSDEC**	BK-1
Date Sampled	**Part 375**	**Part 375**	**TAGM**	7/31/2008
Sample Depth (in bgs)	**Restricted**	**Commercial**	**Value**	0 - 2'
Compound	**Residential**			
SVOCs	Concentration in mg/kg			Concentration in mg/kg
Di-n-butylphthalate	NS	NS	8.1	ND

Notes:

D = Diluted

J = Estimated Value

ND = Not detected above laboratory MDL

NS = No standard

Bold = Result exceeds 6 NYCRR Part 375 Restricted-Residential Objective

Shaded = Result exceeds 6 NYCRR Part 375 Commercial Objective

Underline = Result exceeds TAGM 4046 when Part 375 Criteria is NS

TABLE 3
SUMMARY OF TCLP AND WASTE CHARACTERIZATION PARAMETERS DETECTED IN BAGGED WASTE

ANALYTE	6 NYCRR Part 371 and RCRA	AE-2 6/24/2008
VOCs	ug/L	Concentration in ug/L
1,1 Dichloroethene	700	ND
1,2 Dichloroethane	500	ND
Benzene	500	ND
2-Butanone (Methyl Ethyl Ketone)	200,000	ND
Carbon Tetrachloride	500	ND
Chlorobenzene	100,000	ND
Chloroform	6,000	ND
Tetrachloroethene	700	ND
Trichloroethene	500	ND
Vinyl Chloride	200	ND
SVOCs	ug/L	Concentration in ug/L
1,4-Dichlorobenzene	7,500	ND
2,4-Dinitrotoluene	130	ND
Hexachlorobenzene	130	ND
Hexachlorobutadiene	500	ND
Hexachloroethane	3,000	ND
Nitrobenzene	2,000	ND
Pyridine	5,000	ND
2,4,5-Trichlorophenol	400,000	ND
2,4,6-Trichlorophenol	2,000	ND
2-Methylphenol (o-cresol)	200,000	45 J
3&4-Methylphenol (m&p-cresol)	200,000	530
Pentachlorophenol (ms)	100,000	ND
PESTs	ug/L	Concentration in ug/L
Endrin	20	ND
Heptachlor	8	ND
Heptachlor Epoxide	8	ND
Lindane	400	ND
Methoxychlor	10,000	ND
Toxaphene	500	ND
Chlordane	30	ND
HERBs	ug/L	Concentration in ug/L
2,4-D	10,000	ND
silvex	1,000	ND
METALs	mg/L	Concentration in mg/L
Arsenic as As	5	ND
Barium as Ba	100	0.289 J
Cadmium as Cd	1	ND
Chromium as Cr	5	ND
Lead as Pb	5	ND
Selenium as Se	1	ND
Silver as Ag	5	ND
Mercury as Hg	0.2	ND
Misc. Characteristics		
pH	2-12	8.2
Ignitability	<140 °F	>180 °F
Reactivity - Cyanide	250 mg/kg	ND
Reactivity - Sulfide	500 mg/kg	ND

Notes:

ND = Compound not detected above method detection limit (see lab report for mdl's)

J = Compound detected below quantitation limit

BOLD = Concentration exceeds NYSDEC 6 NYCRR Part 371 and RCRA Guidance Values

Table 4
Operable Unit 5
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
TP-13 (3"-12")	arsenic	34.9	16
TP-15 (0"-18")	arsenic	41.4	16
71.1 (0"-2")	Benzo(a)pyrene	47	1
	Benzo(a)anthracene	45	1
	Benzo(b)fluoranthene	68	1
	Benzo(k)fluoranthene	19	3.9
	Chrysene	59	3.9
	Dibenzo(a,h)anthracene	6.5	0.33
	Fluoranthene	110	100
	Indeno(1,2,3-cd)pyrene	26	0.5
Supplemental Investigation			
I-2 (0'-2')	arsenic	20.7	16
IJ-2 (0-6")	benzo(b)fluoranthene	1.1 J	1

Table 5
Operable Unit 5
Commercial Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
TP-13 (3"-12")	arsenic	34.9	16
TP-15 (0"-18")	arsenic	41.4	16
71.1 (0"-2")	Benzo(a)pyrene	47	1
	Benzo(a)anthracene	45	5.6
	Benzo(b)fluoranthene	68	5.6
	Chrysene	59	56
	Dibenzo(a,h)anthracene	6.5	0.56
	Fluoranthene	110	100
	Indeno(1,2,3-cd)pyrene	26	5.6
Supplemental Investigation			
I-2 (0'-2')	arsenic	20.7	16

Table 6
Operable Unit 5
Exceedances of Soil Cleanup Objectives - TAGM #4046 Criteria

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
no exceedances			
Supplemental Investigation			
no exceedances			

Table 7
Operable Unit 6
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
1F (1-2)	barium	455	400
	chromium (total)	199	110*
2F (1-2)	barium	417	400
	chromium (total)	145	110*
2N (4-5)	barium	404	400
	chromium (total)	118	110*
4F (0-1)	benzo(a)anthracene	72	1
	benzo(a)pyrene	57	1
	benzo(b)fluoranthene	73	1
	benzo(k)fluoranthene	22	3.9
	chrysene	69	3.9
	dibenzo(a,h)anthracene	4.8	0.33
	fluoranthene	150	100
	indeno(1,2,3)cdpyrene	40	0.5
	phenanthrene	150	100
	pyrene	130	100
	arsenic	47	16
	barium	810	400
	cadmium	8.96	4.3
	chromium (total)	209	110*
	copper	770	270
	lead	1190	400
	Aroclor-1254	17	1
4F (2-3)	arsenic	34.9	16
7F (1-1.5)	benzo(a)anthracene	2.3	1
	benzo(a)pyrene	1.9	1
	benzo(b)fluoranthene	2.5	1
	indeno(1,2,3)cdpyrene	1	0.5
13N (2-3)	zinc	24100	10000
14F (1-2)	arsenic	23.2	16
	copper	301	270
	manganese	2050	2000
	zinc	19800	10000
14N (3-4)	zinc	39600	10000
17F (1-2)	manganese	2020	2000

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 7
Operable Unit 6
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
17N (5-6)	manganese	2800	2000
18F (1-2)	benzo(a)pyrene	1.2	1
	benzo(b)fluoranthene	1.4	1
	indeno(1,2,3)cdpyrene	1.1	0.5
19N (1-2)	copper	351	270
	zinc	21400	10000
22F (1-2)	cadmium	5.63	4.3
	zinc	20900	10000
22N (2-3)	cadmium	43.3	4.3
	zinc	26700	10000
24N (7-9)	zinc	24100	10000
25F (7-9)	zinc	55300	10000
28N (4-6)	cadmium	5.44	4.3
29F (1-2)	cadmium	4.37	4.3
	Aroclor-1248	1.2	1
30F (2-4)	cadmium	8.64	4.3
32N (7-9)	cadmium	4.53	4.3
34F (1-2)	copper	496	270
	mercury	1.3	0.81
44N (1.5-3)	barium	404	400
51F (3-5)	cadmium	7.38	4.3
	lead	410	400
52N (5-7)	benzene	9.8	4.8
	arsenic	21.9	16
52N (13-15)	benzene	25	4.8
52.1F (19-21)	benzene	26	4.8

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 7
Operable Unit 6
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
53F (0-4)	benzo(a)anthracene	3.2	1
	benzo(a)pyrene	3.2	1
	benzo(b)fluoranthene	4.1	1
	indeno(1,2,3)cdpyrene	2.1	0.5
54F (3-5)	benzo(a)anthracene	1.6	1
	benzo(a)pyrene	1.2	1
	benzo(b)fluoranthene	1.5	1
	indeno(1,2,3)cdpyrene	0.84	0.5
57F (2-4)	chromium (total)	216	110*
	manganese	3580	2000
57N (4-6)	cadmium	13.4	4.3
58F (0-2)	benzo(a)anthracene	18	1
	benzo(a)pyrene	14	1
	benzo(b)fluoranthene	18	1
	indeno(1,2,3)cdpyrene	7.9	0.5
	benzo(k)fluoranthene	6.1	3.9
	chrysene	16	3.9
	Aroclor-1248	2.2	1
58F (4-6)	copper	274	270
	zinc	11100	10000
58.1F (2-4)	cadmium	4.5	4.3
58.1N (11-12)	zinc	11000	10000
66F (0-0.5)	benzo(a)anthracene	1.8	1
	benzo(a)pyrene	1.5	1
	benzo(b)fluoranthene	1.9	1
	indeno(1,2,3)cdpyrene	0.81	0.5
67F (0-0.5)	Aroclor-1248	1.7	1
76F (3-4)	cadmium	12.8	4.3
	lead	481	400
	Aroclor-1248	2	1
77N (1-2)	zinc	23200	10000
79N (3-4)	cadmium	6.3	4.3
82F (0-2)	cadmium	4.88	4.3

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 7
Operable Unit 6
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
83F (0-2)	Aroclor-1248	2.6	1
	cadmium	4.72	4.3
84F (1-2)	arsenic	51.7	16
85F (0-1)	benzo(a)anthracene	77	1
	benzo(a)pyrene	66	1
	benzo(b)fluoranthene	75	1
	benzo(k)fluoranthene	20	3.9
	chrysene	71	3.9
	dibenzo(a,h)anthracene	3.8	0.33
	fluoranthene	230	100
	indeno(1,2,3)cdpyrene	47	0.5
	phenanthrene	270	100
	pyrene	170	100
	barium	787	400
	cadmium	6.63	4.3
	copper	1950	270
	lead	653	400
	zinc	12600	10000
85N (2-3)	indeno(1,2,3)cd-pyrene	0.63	0.5
TP-27 (0"-60")	benzo(a)anthracene	2.1	1
	benzo(a)pyrene	1.8	1
	benzo(b)fluoranthene	2.4	1
	indeno[1,2,3-cd]pyrene	0.62	0.5
	cadmium	6.38	4.3
	copper	789	270
	lead	412	400
TP-28 (0"-36")	barium	636	400
TP-59 (2"-8")	benzo(a)anthracene	1.1	1
	benzo(a)pyrene	1.1	1
	benzo(b)fluoranthene	1.6	1
	indeno[1,2,3-cd]pyrene	0.84	0.5
	arsenic	216	16
	barium	1770	400
	cadmium	108	4.3
	chromium (total)	275	110*
	copper	37200	270
	lead	3440	400
	mercury	5.8	0.81
	nickel	324	310
	zinc	49000	10000

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 7
Operable Unit 6
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
TP-65 (0"-16")	arsenic	32.7	16
	copper	1090	270
	lead	715	400
	mercury	3.6	0.81
	zinc	20700	10000
SP-18 (comp)	arsenic	18.3	16
SP-19 (comp)	copper	2020	270
	mercury	1	0.81
SP-21 (comp)	arsenic	26.1	16
	barium	686	400
	cadmium	229	4.3
	chromium (total)	115	110*
	copper	12700	270
	lead	941	400
	mercury	3.4	0.81
	nickel	457	310
	zinc	25000	10000
SP-22 (comp)	barium	1410	400
	copper	23600	270
P-43	manganese	2330	2000
P-44	cadmium	7.23	4.3
	zinc	42700	10000
P-60	benzo(a)anthracene	41	1
	benzo(a)pyrene	39	1
	benzo(b)fluoranthene	50	1
	benzo(k)fluoranthene	18	3.9
	chrysene	38	3.9
	dibenzo(a,h)anthracene	2.4	0.56
	indeno[1,2,3-cd]pyrene	24	0.5
	arsenic	132	16
	copper	569	270
	mercury	5.3	0.81
P-61	cadmium	10.5	4.3
	zinc	73700	10000

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 7
Operable Unit 6
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
FD1	Aroclor-1248	84	1
FD2	Aroclor-1248	12	1
FD3	Aroclor-1248	5.3	1
FD4	Aroclor-1248	12	1
Sump A	Aroclor-1248	150	1
Sump B	Aroclor-1248	430	1
SD-01	Aroclor-1248	6.49	1
SD-02	Aroclor-1248	8.48	1
SD-03	Aroclor-1248	11.7	1
Supplemental Investigation		**Concentration (mg/kg)**	**Criteria (mg/kg)**
C-4 (0-1')	copper	1580	270
G-4 (0'2')	arsenic	28.2	16
M-1 (0-6")	benzo(a)pyrene	19	1
	benzo(a)anthracene	23	1
	benzo(b)fluoranthene	28	1
	benzo(k)fluoranthene	7.7	3.9
	chrysene	20	3.9
	dibenzo(a,h)anthracene	2.3	0.33
	indeno(1,2,3-cd)pyrene	8.5	0.5
AA-4 (1'-2')	arsenic	31.2	16
AC-4 (2'-3')	cadmium	7.4	4.3
AD-2 (7.5'-8.5')	zinc	14700	10000
AE-2 (3'-5')	Aroclor 1254	1.2	1
	cadmium	15.2	4.3
AF-2 (1.5'-2')	cadmium	15.7	4.3
	zinc	18000	10000
AF-3 (0-2')	cadmium	6.16	4.3
	zinc	10400	10000

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 7
Operable Unit 6
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
AG-1 (7')	zinc	96200	10000
AG-3 (1.5'-2')	zinc	57200	10000
AJ-3 (1'-2')	cadmium	4.51	4.3
	zinc	17200	10000
AK-2 (1'-2')	benzo(a)pyrene	1.5	1
	benzo(a)anthracene	1.5	1
	benzo(b)fluoranthene	1.9	1
	indeno(1,2,3-cd)pyrene	0.88	0.5
AK-5 (4'-6')	zinc	25500	10000
AK-6 (4'-6')	cadmium	7.9	4.3
	zinc	19600	10000
BB-1 (0-2')	benzo(a)pyrene	1.2	1
	benzo(a)anthracene	1.3	1
	benzo(b)fluoranthene	1.5	1
	indeno(1,2,3-cd)pyrene	0.74	0.5
BF-1 (1'-2')	barium	444	400
	chromium (total)	219	110
	chromium (trivalent)	259	180
BF-2 (1'-2')	barium	514	400
	chromium (total)	227	110
	chromium (trivalent)	258	180
BF-3 (1'-2')	barium	462	400
	chromium (total)	227	110
	chromium (trivalent)	268	180
BG-1 (0-2')	barium	477	400
	chromium (total)	232	110
	chromium (trivalent)	275	180
BG-2 (0-2')	barium	480	400
	chromium (total)	176	110
	chromium (trivalent)	215	180
BI-1 (3'-5')	cadmium	9.09	4.3

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 8
Operable Unit 6
Commercial Soil Cleanup Objective Exceednaces

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
1F (1-2)	barium	455	400
2F (1-2)	barium	417	400
2N (4-5)	barium	404	400
4F (0-1)	benzo(a)anthracene	72	5.6
	benzo(a)pyrene	55	1
	benzo(b)fluoranthene	73	5.6
	chrysene	69	56
	dibenzo(a,h)anthracene	4.8	0.56
	indeno(1,2,3)cd-pyrene	34	5.6
	arsenic	47	16
	barium	810	400
	copper	770	270
	lead	1190	1000
	Aroclor 1254	17	1
4F (2-3)	arsenic	34.9	16
7F (1-1.5)	benzo(a)pyrene	1.9	1
13N (2-3)	zinc	24100	10000
14F (1-2)	arsenic	23.2	16
	copper	301	270
	zinc	19800	10000
14N (3-4)	zinc	39600	10000
18F (1-2)	benzo(a)pyrene	1.2	1
19N (1-2)	copper	351	270
	zinc	21400	10000
22F (1-2)	zinc	20900	10000
22N (2-3)	cadmium	43.3	9.3
	zinc	26700	10000
24N (7-9)	zinc	24100	10000
25F (7-9)	zinc	55300	10000
29F (1-2)	Aroclor-1248	1.2	1
34F (1-2)	copper	496	270

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 8
Operable Unit 6
Commercial Soil Cleanup Objective Exceednaces

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
44N (1.5-3)	barium	404	400
52N (5-7)	arsenic	21.9	16
53F (0-4)	benzo(a)pyrene	3.2	1
54 F (3-5)	benzo(a)pyrene	1.2	1
57N (4-6)	cadmium	13.4	9.3
58F (0-2)	benzo(a)anthracene	18	5.6
	benzo(a)pyrene	14	1
	benzo(b)fluoranthene	18	5.6
	indeno(1,2,3)cd-pyrene	7.9	5.6
	Aroclor-1248	2.2	1
58F (4-6)	copper	274	270
	zinc	11100	10000
58.1N (11-12)	zinc	11000	10000
66F (0-0.5)	benzo(a)pyrene	1.5	1
67F (0-0.5)	Aroclor-1254	1.7	1
76F (3-4)	cadmium	12.8	9.3
	Aroclor-1248	2	1
77N (1-2)	zinc	23200	10000
83F (0-2)	Aroclor-1254	2.6	1
84F (1-2)	arsenic	51.7	16
85F (0-1)	benzo(a)anthracene	77	5.6
	benzo(a)pyrene	66	1
	benzo(b)fluoranthene	75	5.6
	indeno(1,2,3)cd-pyrene	47	5.6
	dibenzo(a,h)anthracene	3.8	0.56
	barium	787	400
	copper	1950	270
	zinc	12600	10000
TP-27 (0"-60")	benzo(a)pyrene	1.8	1
	copper	789	270
TP-28 (0"-36")	barium	636	400

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 8
Operable Unit 6
Commercial Soil Cleanup Objective Exceednaces

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
TP-59 (2"-8")	benzo(a)pyrene	1.1	1
	arsenic	216	16
	barium	1770	400
	cadmium	108	9.3
	copper	37200	270
	lead	3440	1000
	mercury	5.8	2.8
	nickel	324	310
	zinc	49000	10000
TP-65 (0"-16")	arsenic	32.7	16
	copper	1090	270
	mercury	3.6	2.8
	zinc	20700	10000
SP-18 (comp)	arsenic	18.3	16
SP-19 (comp)	copper	2020	270
SP-21 (comp)	arsenic	26.1	16
	barium	686	400
	cadmium	229	9.3
	copper	12700	270
	mercury	3.4	2.8
	nickel	457	310
	zinc	25000	10000
P-44	zinc	42700	10000
P-60	benzo(a)anthracene	41	5.6
	benzo(a)pyrene	39	1
	benzo(b)fluoranthene	50	5.6
	benzo(k)fluoranthene	18	56
	chrysene	38	56
	dibenzo(a,h)anthracene	2.4	0.56
	indeno[1,2,3-cd]pyrene	24	5.6
	arsenic	132	16
	copper	569	270
	mercury	5.3	2.8
P-61	cadmium	10.5	9.3
	zinc	73700	10000
SP-22 (comp)	barium	1410	400
	copper	23600	270
FD1	Aroclor-1248	84	1
FD2	Aroclor-1248	12	1

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 8
Operable Unit 6
Commercial Soil Cleanup Objective Exceednaces

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
FD3	Aroclor-1248	5.3	1
FD4	Aroclor-1248	12	1
Sump A	Aroclor-1248	150	1
Sump B	Aroclor-1248	430	1
SD-01	Aroclor-1248	6.49	1
SD-02	Aroclor-1248	8.48	1
SD-03	Aroclor-1248	11.7	1
Supplemental Investigation		**Concentration (mg/kg)**	**Criteria (mg/kg)**
C-4 (0-1')	copper	1580	270
G-4 (0-2')	arsenic	28.2	16
M-1 (0-6")	benzo(a)pyrene	19	1
	benzo(a)anthracene	23	5.6
	benzo(b)fluoranthene	28	5.6
	dibenzo(a,h)anthracene	2.3	0.56
	indeno(1,2,3-cd)pyrene	8.5	5.6
AA-4 (1'-2')	arsenic	31.2	16
AD-2 (7.5'-8.5')	zinc	14700	10000
AE-2 (3'-5')	cadmium	15.2	9.3
AF-2 (1.5'-2')	cadmium	15.7	4.3
	zinc	18000	10000
AF-3 (0-2')	zinc	10400	10000
AG-1 (7')	zinc	96200	10000
AG-3 (1.5'-2')	zinc	57200	10000
AJ-3 (1'-2')	zinc	17200	10000
AK-2 (1'-2')	benzo(a)pyrene	1.5	1
AK-5 (4'-6')	zinc	25500	10000
AK-6 (4'-6')	zinc	19600	10000

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 8
Operable Unit 6
Commercial Soil Cleanup Objective Exceednaces

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
BB-1 (0-2')	benzo(a)pyrene	1.2	1
BF-1 (1'-2')	barium	444	400
BF-2 (1'-2')	barium	514	400
BF-3 (1'-2')	barium	462	400
BG-1 (0-2')	barium	477	400
BG-2 (0-2')	barium	480	400

Note:

*** 110 mg/kg criteria is for hexavalent chromium only**

Table 9
Operable Unit 6
TAGM #4046 Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
4F (0-1)	di-n-butylphthalate	260	8.1
	dimethyl phthalate	3	2
14F (1-2)	di-n-butylphthalate	8.3	8.1
49F (0-2)	di-n-butylphthalate	530	8.1
52.1F (1-3)	di-n-butylphthalate	9.6	8.1
53F (0-4)	di-n-butylphthalate	280	8.1
56N (1-2)	di-n-butylphthalate	50	8.1
58F (0-2)	di-n-butylphthalate	210	8.1
67F (0-0.5)	di-n-butylphthalate	230	8.1
83F (0-2)	di-n-butylphthalate	440	8.1
Suplemental Investigation		**Concentration (mg/kg)**	**Criteria (mg/kg)**
G-1 (0-2')	di-n-butylphthalate	43	8.1
BC-4 (3.5')	di-n-butylphthalate	17	8.1

Table 10
Operable Unit 6
Summary of Exceedances

		Restricted-Residential Summary		Commercial Summary	
Site Investigation Analyte	**Maximum Concentration (mg/kg)**	**Number of Exceedances**	**Soil Cleanup Objective (mg/kg)**	**Number of Exceedances**	**Soil Cleanup Objective (mg/kg)**
Arsenic	216	10	16	10	16
Barium	1770	10	400	10	400
Cadmium	229	20	4.3	6	9.3
Chromium	275	7	110	0	400
Copper	37200	13	270	13	270
Lead	3440	8	400	2	1000
Manganese	3580	5	2000	0	10000
Mercury	5.8	6	0.81	4	2.8
Nickel	457	2	310	2	310
Zinc	73700	17	10000	17	10000
PCB	17	6	1	6	1
Benzene	26	3	4.8	0	44
Benzo(a)anthracene	77	10	1	4	5.6
benzo(a)pyrene	66	11	1	11	1
benzo(b)fluoranthene	75	11	1	4	5.6
benzo(k)fluoranthene	22	4	3.9	1	56
chrysene	71	4	3.9	2	56
dibenzo(a,h)anthracene	4.8	3	0.33	3	0.56
fluoranthene	230	2	100	0	500
indeno(1,2,3)cd-pyrene	47	12	0.5	4	5.6
phenanthrene	270	2	100	0	500
pyrene	170	2	100	0	500

TAGM #4046 Summary			
Site Investigation Analyte	**Maximum Concentration (mg/kg)**	**Number of Exceedances**	**TAGM RSCO (mg/kg)**
dimethyl phthalate	3	1	2
di-n-butylphthalate	530	8	8.1

		Restricted-Residential Summary		Commercial Summary	
Supplemental Investigation Analyte	**Maximum Concentration (mg/kg)**	**Number of Exceedances**	**Soil Cleanup Objective (mg/kg)**	**Number of Exceedances**	**Soil Cleanup Objective (mg/kg)**
Arsenic	31.2	2	16	2	16
Barium	514	5	400	5	400
Cadmium	15.7	7	4.3	2	9.3
Chromium (total)	232	5	110	0	400
Chromium (trivalent)	275	5	180	0	
Copper	1580	1	270	1	270
Zinc	96200	8	10000	8	10000
PCB	1.2	1	1	0	1
Benzo(a)anthracene	23	3	1	1	5.6
benzo(a)pyrene	19	3	1	3	1
benzo(b)fluoranthene	28	3	1	1	5.6
benzo(k)fluoranthene	7.7	1	3.9	0	56
chrysene	20	1	3.9	0	56
dibenzo(a,h)anthracene	2.3	1	0.33	1	0.56
indeno(1,2,3)cd-pyrene	8.5	2	0.5	1	5.6
phenanthrene	270	2	100	0	500
pyrene	170	2	100	0	500

TAGM #4046 Summary			
Supplemental Investigation Analyte	**Maximum Concentration (mg/kg)**	**Number of Exceedances**	**TAGM RSCO (mg/kg)**
di-n-butylphthalate	43	2	8.1

RSCO = Recommended Soil Clenup Objective

Table 11
Operable Unit 7
Restricted Residential Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
SP-9	benzo(a)anthracene	1.5	1
	benzo(a)pyrene	1.3	1
	benzo(b)fluoranthene	1.8	1
	indeno[1,2,3-cd]pyrene	0.99	0.5
Supplemental Investigation			
no exceedances			

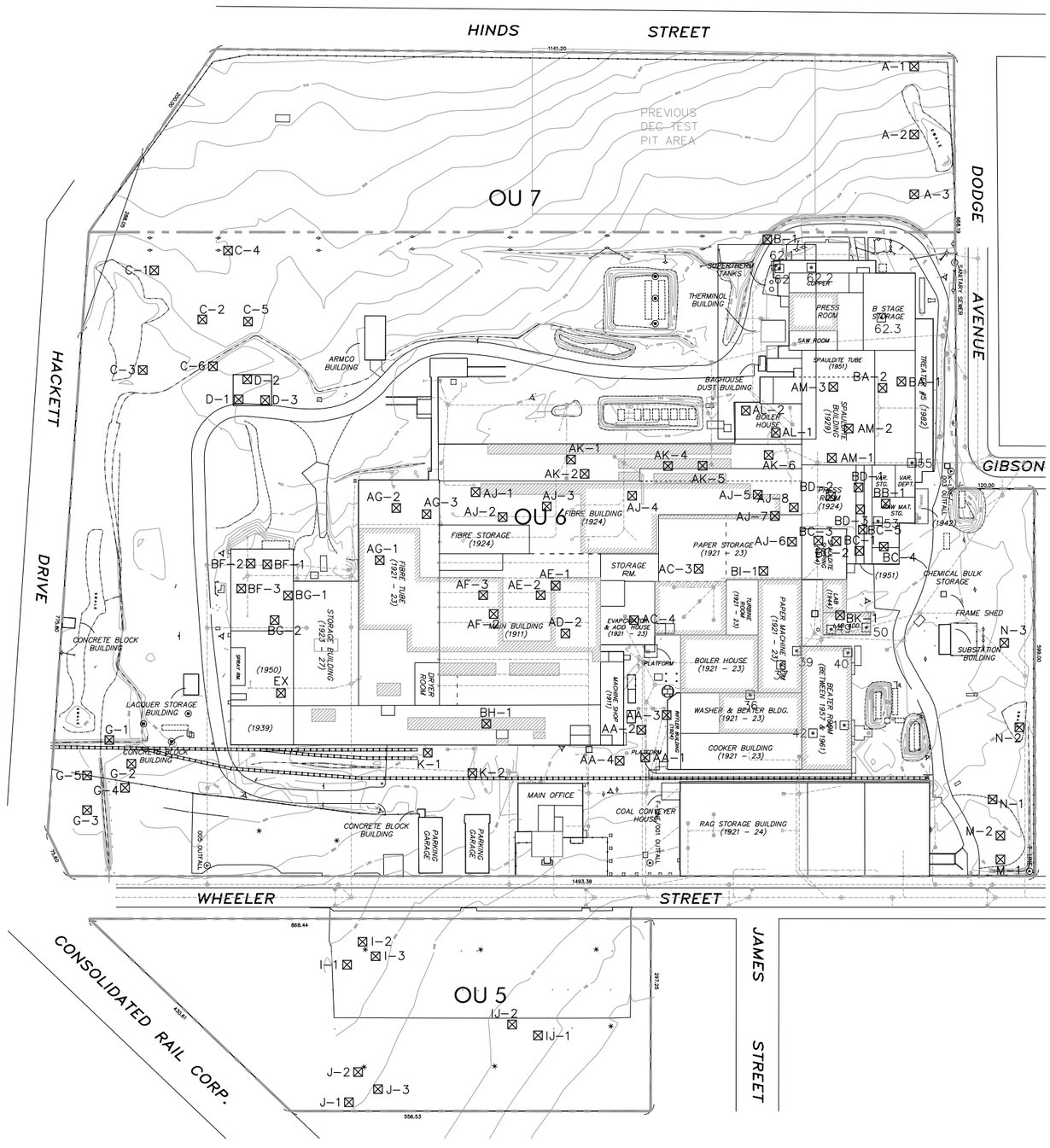
Table 12
Operable Unit 7
Commercial Soil Cleanup Objective Exceedances

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
SP-9	benzo(a)pyrene	1.3	1
Supplemental Investigation			
no exceedances			

Table 13
Operable Unit 7
Exceedances of Soil Cleanup Objectives - TAGM #4046 Criteria

Sample ID	Contaminant	Concentration (mg/kg)	Criteria (mg/kg)
SI			
no exceedances			
Supplemental Investigation			
no exceedances			

REV-1



LEGEND

- ⊠ LIRO ADDITIONAL TEST PIT LOCATIONS
- ⊡ LIRO ADDITIONAL JACKHAMMER LOCATIONS
- PROPERTY LIMIT/AREA DEMARCATION

100 0 100
SCALE IN FEET

WARNING

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NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	AMM
DESIGNED BY:	
CHECKED BY:	SF
DRAWN BY:	ES

CLIENT: The City of Tonawanda

DATE: SEPTEMBER 2008
SCALE: AS SHOWN

JOB TITLE AND LOCATION: SPAULDING FIBRE DEMOLITION

LIRO JOB NO.: 08-49-446
SHEET OF

DRAWING TITLE: SUPPLEMENTAL INVESTIGATION SAMPLING LOCATIONS

FIGURE NO. 1

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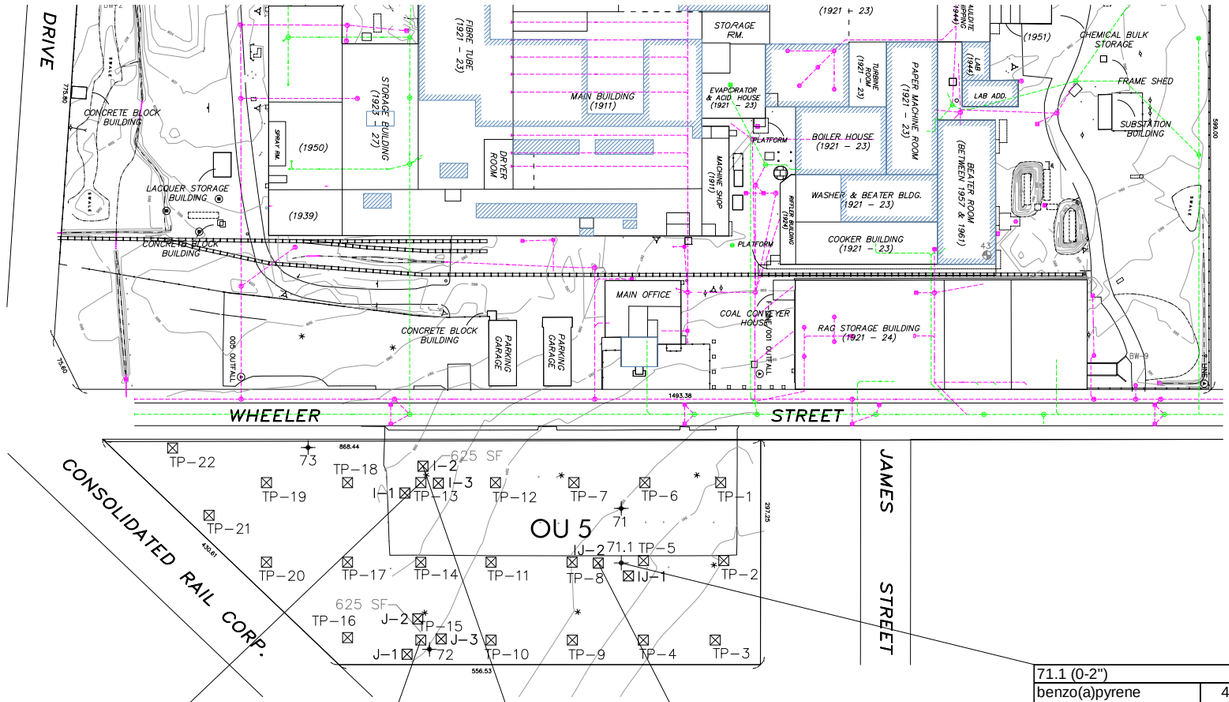
REV-1



TP-13 (3"-12")		
arsenic	34.9	16

TP-15 (0"-18")		
arsenic	41.4	16

I-2 (0-2')		
arsenic	20.7	16

IJ-2 (0-6")		
benzo(b)fluoranthene	1.1	1

71.1 (0-2")		
benzo(a)pyrene	47	1
benzo(a)anthracene	45	1
benzo(b)fluoranthene	68	1
benzo(k)fluoranthene	19	3.9
chrysene	59	3.9
dibenzo(a,h)anthracene	6.5	0.33
fluoranthene	110	100
indeno[1,2,3-cd]pyrene	26	0.5

LEGEND

- ⊠ LIRO ADDITIONAL TEST PIT LOCATIONS
- ⊠ LIRO TEST PIT LOCATION
- ◎ LIRO DRILL (HSA) LOCATION
- ⊡ LIRO JACKHAMMER LOCATION
- ✦ LIRO GEOPROBE LOCATION
- ⊕ LIRO MONITORING WELL LOCATION
- ▲ PREVIOUS RI OVERBURDEN WELL LOCATION
- ◬ PREVIOUS RI BEDROCK WELL LOCATION

18F (1–2)		
2–methylphenol	0.25	0.1

SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

NOTE: LISTED SCG IS RESTRICTED–RESIDENTIAL USE CRITERIA

100 0 100
SCALE IN FEET

NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	AMM
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	ES
CLIENT:	The City of Tonawanda
DATE:	SEPTEMBER 2008
SCALE:	AS SHOWN
JOB TITLE AND LOCATION:	SPAULDING FIBRE SITE AND SUPPLEMENTAL INVESTIGATIONS
LIRO JOB NO.:	08–49–446
SHEET	OF
DRAWING TITLE:	RESTRICTED-RESIDENTIAL EXCEEDANCES OPERABLE UNIT 5
FIGURE NO.	2

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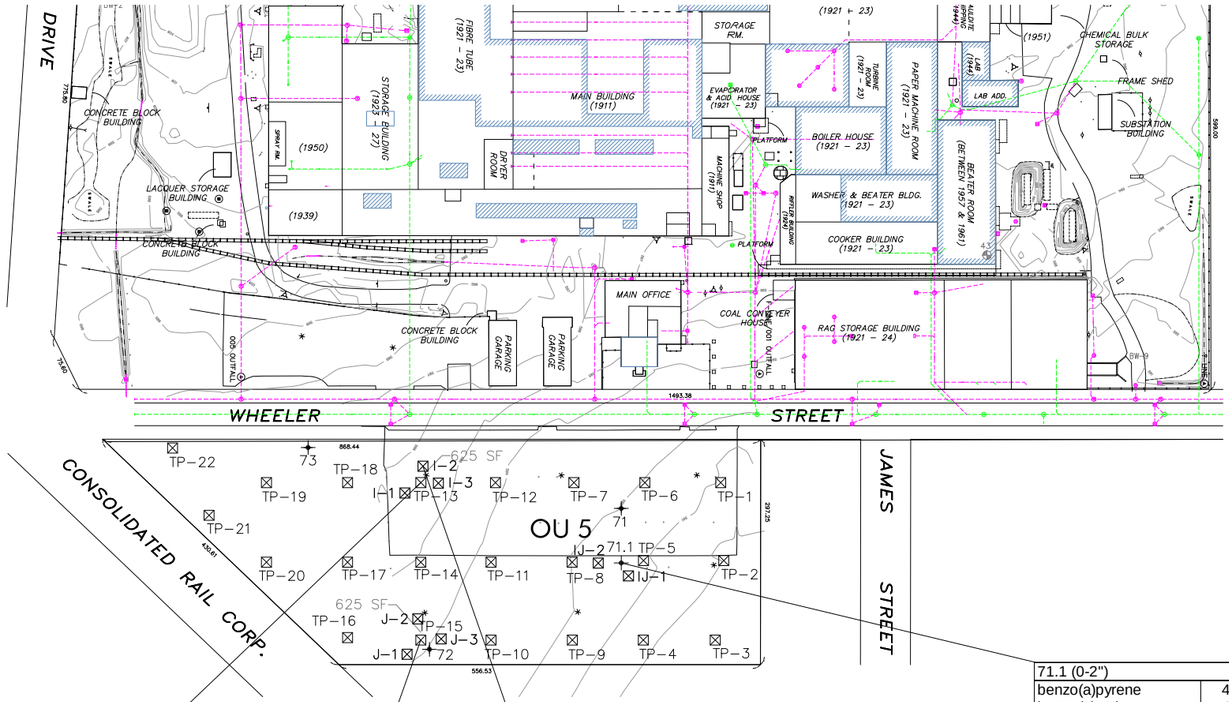
REV-1



TP-13 (3"-12")		
arsenic	34.9	16

I-2 (0-2')		
arsenic	20.7	16

TP-15 (0"-18")		
arsenic	41.4	16

71.1 (0-2")		
benzo(a)pyrene	47	1
benzo(a)anthracene	45	5.6
benzo(b)fluoranthene	68	5.6
chrysene	59	56
dibenzo(a,h)anthracene	6.5	0.56
fluoranthene	110	100
indeno[1,2,3-cd]pyrene	26	5.6

LEGEND

- ⊠ LIRO ADDITIONAL TEST PIT LOCATIONS
- ⊠ LIRO TEST PIT LOCATION
- ◎ LIRO DRILL (HSA) LOCATION
- ⊡ LIRO JACKHAMMER LOCATION
- ✦ LIRO GEOPROBE LOCATION
- ◓ LIRO MONITORING WELL LOCATION
- ▲ PREVIOUS RI OVERBURDEN WELL LOCATION
- ◬ PREVIOUS RI BEDROCK WELL LOCATION

18F (1–2)		
2–methylphenol	0.25	0.1

SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

NOTE: LISTED SCG IS COMMERCIAL USE CRITERIA

100 0 100
SCALE IN FEET

NO.	DATE	DESCRIPTION
		REVISIONS

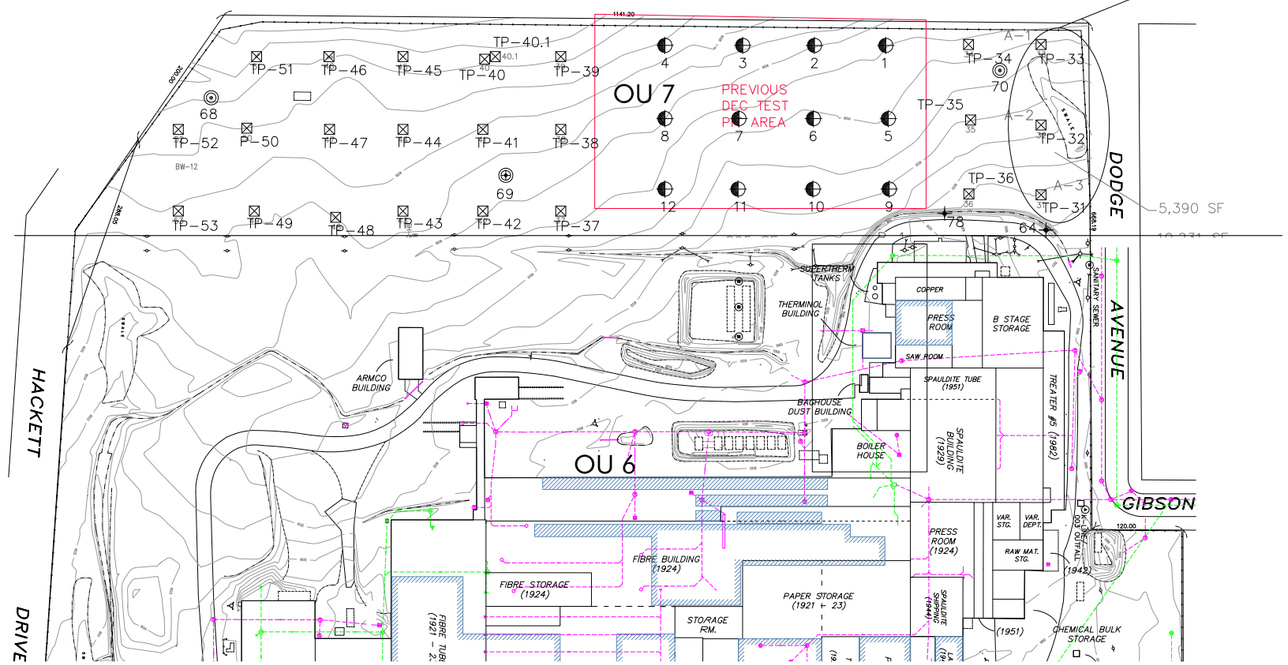
LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	AMM
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	ES
CLIENT:	The City of Tonawanda
DATE:	SEPTEMBER 2008
SCALE:	AS SHOWN
JOB TITLE AND LOCATION:	SPAULDING FIBRE SITE AND SUPPLEMENTAL INVESTIGATIONS
LIRO JOB NO.:	08–49–446
SHEET	OF
DRAWING TITLE:	COMMERCIAL EXCEEDANCES OPERABLE UNIT 5
FIGURE NO.	3

J:\07\2506A Spaulding\CAD\Demo\Supplemental Investigation\Spaulding Supplemental Inv.dwg, 1/8/2009 11:16:44 PM, ES

REV-1

SP-9 (comp TP-31, TP-32, TP-33)		
benzo(a)anthracene	1.5	1
benzo(a)pyrene	1.3	1
benzo(b)fluoranthene	1.8	1
indeneo[1,2,3-cd]pyrene	0.99	0.5



LEGEND

- LIRO ADDITIONAL TEST PIT LOCATIONS
- LIRO TEST PIT LOCATION
- LIRO DRILL (HSA) LOCATION
- LIRO JACKHAMMER LOCATION
- LIRO GEOPROBE LOCATION
- LIRO MONITORING WELL LOCATION
- PREVIOUS RI OVERBURDEN WELL LOCATION
- PREVIOUS RI BEDROCK WELL LOCATION

18F (1–2)		
2–methylphenol	0.25	0.1

SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

NOTE: LISTED SCG IS RESTRICTED–RESIDENTIAL USE CRITERIA

100 0 100
SCALE IN FEET

WARNING

IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, OTHER THAN THOSE WHOSE SEAL APPEARS ON THIS DRAWING, TO ALTER IN ANY WAY AN ITEM ON THIS DRAWING. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NO.	DATE	DESCRIPTION
REVISIONS		

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	AMM
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	ES

CLIENT: The City of Tonawanda

DATE: SEPTEMBER 2008
SCALE: AS SHOWN

JOB TITLE AND LOCATION: SPAULDING FIBRE SITE AND SUPPLEMENTAL INVESTIGATIONS

LIRO JOB NO.: 08–49–446
SHEET OF

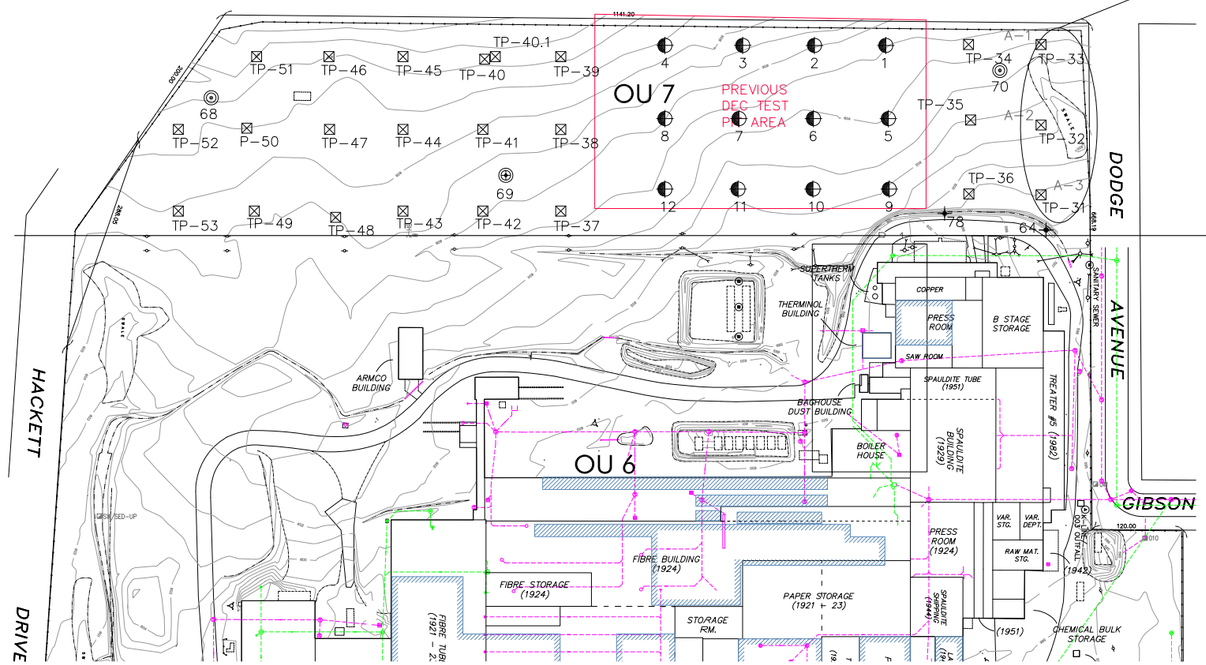
DRAWING TITLE: RESTRICTED RESIDENTIAL EXCEEDANCES OPERABLE UNIT 7

FIGURE NO. 4

J:\07\25306A Spaulding\CAD\Demo\Supplemental Investigation\Spaulding Supplemental Inv.dwg, 1/8/2009 1:16:06 PM, ES

REV-1

SP-9 (comp TP-31, TP-32, TP-33)		
benzo(a)pyrene	1.3	1



LEGEND

- LIRO ADDITIONAL TEST PIT LOCATIONS
- LIRO TEST PIT LOCATION
- LIRO DRILL (HSA) LOCATION
- LIRO JACKHAMMER LOCATION
- LIRO GEOPROBE LOCATION
- LIRO MONITORING WELL LOCATION
- PREVIOUS RI OVERBURDEN WELL LOCATION
- PREVIOUS RI BEDROCK WELL LOCATION

18F (1–2)		
2–methylphenol	0.25	0.1

SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

NOTE: LISTED SCG IS COMMERCIAL USE CRITERIA

100 0 100
SCALE IN FEET

NO.	DATE	DESCRIPTION
REVISIONS		

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	AMM
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	ES
CLIENT:	The City of Tonawanda
DATE:	SEPTEMBER 2008
SCALE:	AS SHOWN
JOB TITLE AND LOCATION:	SPAULDING FIBRE SITE AND SUPPLEMENTAL INVESTIGATIONS
LIRO JOB NO.:	08–49–446
SHEET	OF
DRAWING TITLE:	COMMERCIAL EXCEEDANCES OPERABLE UNIT 7
FIGURE NO.	5

J:\07252306A Spaulding\CAD\Demo\Supplemental Investigation\Spaulding Supplemental Inv.dwg, 1/8/2009 1:15:31 PM, ES

REV-1

SP-18 (comp TP-57, TP-58, TP-59)		
arsenic	18.3	16

66F (0-0.5)		
benzo(a)anthracene	1.8	1
benzo(a)pyrene	1.5	1
benzo(b)fluoranthene	1.9	1
indeno(1,2,3)cdpyrene	0.81	0.5

85F (0-1)		
benzo(a)anthracene	77	1
benzo(a)pyrene	66	1
benzo(b)fluoranthene	75	1
benzo(k)fluoranthene	20	3.9
chrysene	71	3.9
dibenzo(a,h)anthracene	3.8	0.33
fluoranthene	230	100
indeno(1,2,3)cdpyrene	47	0.5
phenanthrene	270	100
pyrene	170	100
barium	787	400
cadmium	6.63	4.3
copper	1950	270
lead	653	400
zinc	12600	10000
85N (2-3)		
indeno(1,2,3)cd-pyrene	0.63	0.5

67F (0-0.5)		
Aroclor-1248	1.7	1

SP-21 (comp TP-66.1, TP-67)		
arsenic	26.1	16
barium	686	400
cadmium	229	4.3
chromium (total)	115	110*
copper	12700	270
lead	941	400
mercury	3.4	0.81
nickel	457	310
zinc	25000	10000

NYSDEC PCB Sampling Results	
Sediment Sample Loc.	Conc.
SD-01	6.49
SD-02	8.48
SD-03	11.7

13N (2-3)		
zinc	24100	10000

1F (1-2)		
barium	455	400
chromium (total)	199	110*

2F (1-2)		
barium	417	400
chromium (total)	145	110*
2N (4-5)		
barium	404	400
chromium (total)	118	110*

83F (0-2)		
Aroclor-1248	2.6	1
cadmium	4.72	4.3

4F (0-1)		
benzo(a)anthracene	72	1
benzo(a)pyrene	57	1
benzo(b)fluoranthene	73	1
benzo(k)fluoranthene	22	3.9
chrysene	69	3.9
dibenzo(a,h)anthracene	4.8	0.33
fluoranthene	150	100
indeno(1,2,3)cdpyrene	40	0.5
phenanthrene	150	100
pyrene	130	100
arsenic	47	16
barium	810	400
cadmium	8.96	4.3
chromium (total)	209	110*
copper	770	270
lead	1190	400
Aroclor 1254	17	1
4F (2-3)		
arsenic	34.9	16

TP-59 (2"-8")		
benzo(a)anthracene	1.1	1
benzo(a)pyrene	1.1	1
benzo(b)fluoranthene	1.6	1
indeno[1,2,3-cd]pyrene	0.84	0.5
arsenic	216	16
barium	1770	400
cadmium	108	4.3
chromium (total)	275	110*
copper	37200	270
lead	3440	400
mercury	5.8	0.81
nickel	324	310
zinc	49000	10000

14F (1-2)		
arsenic	23.2	16
copper	301	270
manganese	2050	2000
zinc	19800	10000
14N (3-4)		
zinc	39600	10000

SP-19 (comp TP-60, TP-61, TP-62)		
copper	2020	270
mercury	1	0.81

TP-65 (0"-16")		
arsenic	32.7	16
copper	1090	270
lead	715	400
mercury	3.6	0.81
zinc	20700	10000

19N (1-2)		
copper	351	270
zinc	21400	10000

79N (3-4)		
cadmium	6.3	4.3

NYSDEC PCB Sampling Results	
Sludge Sample Location	Conc.
Sump A	150
Sump B	430
OSE-1	19
FD1	84
FD2	12
FD3	5.3
FD4	12

18F (1-2)		
benzo(a)pyrene	1.2	1
benzo(b)fluoranthene	1.4	1
indeno(1,2,3)cdpyrene	1.1	0.5

58.1F (2-4)		
cadmium	4.5	4.3
58.1N (11-12)		
zinc	11000	10000

P-43		
manganese	2330	2000

58F (0-2)		
benzo(a)anthracene	18	1
benzo(a)pyrene	14	1
benzo(b)fluoranthene	18	1
indeno(1,2,3)cdpyrene	7.9	0.5
benzo(k)fluoranthene	6.1	3.9
chrysene	16	3.9
Aroclor-1248	2.2	1
58F (4-6)		
copper	274	270
zinc	11100	10000

57F (2-4)		
chromium (total)	216	110*
maganese	3580	2000
57N (4-6)		
cadmium	13.4	4.3

28N (4-6)		
cadmium	5.44	4.3

77N (1-2)		
zinc	23200	10000

54F (3-5)		
benzo(a)anthracene	1.6	1
benzo(a)pyrene	1.2	1
benzo(b)fluoranthene	1.5	1

53F (0-4)		
benzo(a)anthracene	3.2	1
benzo(a)pyrene	3.2	1
benzo(b)fluoranthene	4.1	1
indeno(1,2,3)cdpyrene	2.1	0.5

29F (1-2)		
cadmium	4.37	4.3
Aroclor-1248	1.2	1

52.1F (19-21)		
benzene	26	4.8

52N (5-7)		
benzene	9.8	4.8
arsenic	21.9	16
52N (13-15)		
benzene	25	4.8

SP-22 (comp TP-27,TP-28,TP-29,TP-30)		
barium	1410	400
copper	23600	270

TP-28 (0"-36")		
barium	636	400

TP-27 (0"-60")		
benzo(a)anthracene	2.1	1
benzo(a)pyrene	1.8	1
benzo(b)fluoranthene	2.4	1
indeno'1,2,3-cd]pyrene	0.62	0.5
cadmium	6.38	4.3
copper	789	270
lead	412	400

51F (3-5)		
cadmium	7.38	4.3
lead	410	400

30F (2-4)		
cadmium	8.64	4.3

P-44		
cadmium	7.23	4.3
zinc	42700	10000

82F (0-2)		
cadmium	4.88	4.3

84F (1-2)		
arsenic	51.7	16

17F (1-2)		
manganese	2020	2000
17N (5-6)		
manganese	2800	2000

22F (1-2)		
cadmium	5.63	4.3
zinc	20900	10000
22N (2-3)		
cadmium	43.3	4.3
zinc	26700	10000

76F (3-4)		
cadmium	12.8	4.3
lead	481	400
Aroclor-1248	2	1

7F (1-1.5)		
benzo(a)anthracene	2.3	1
benzo(a)pyrene	1.9	1
benzo(b)fluoranthene	2.5	1
indeno[1,2,3-cd]pyrene	1	0.5

25F (7-9)		
zinc	55300	10000

24N (7-9)		
zinc	24100	10000

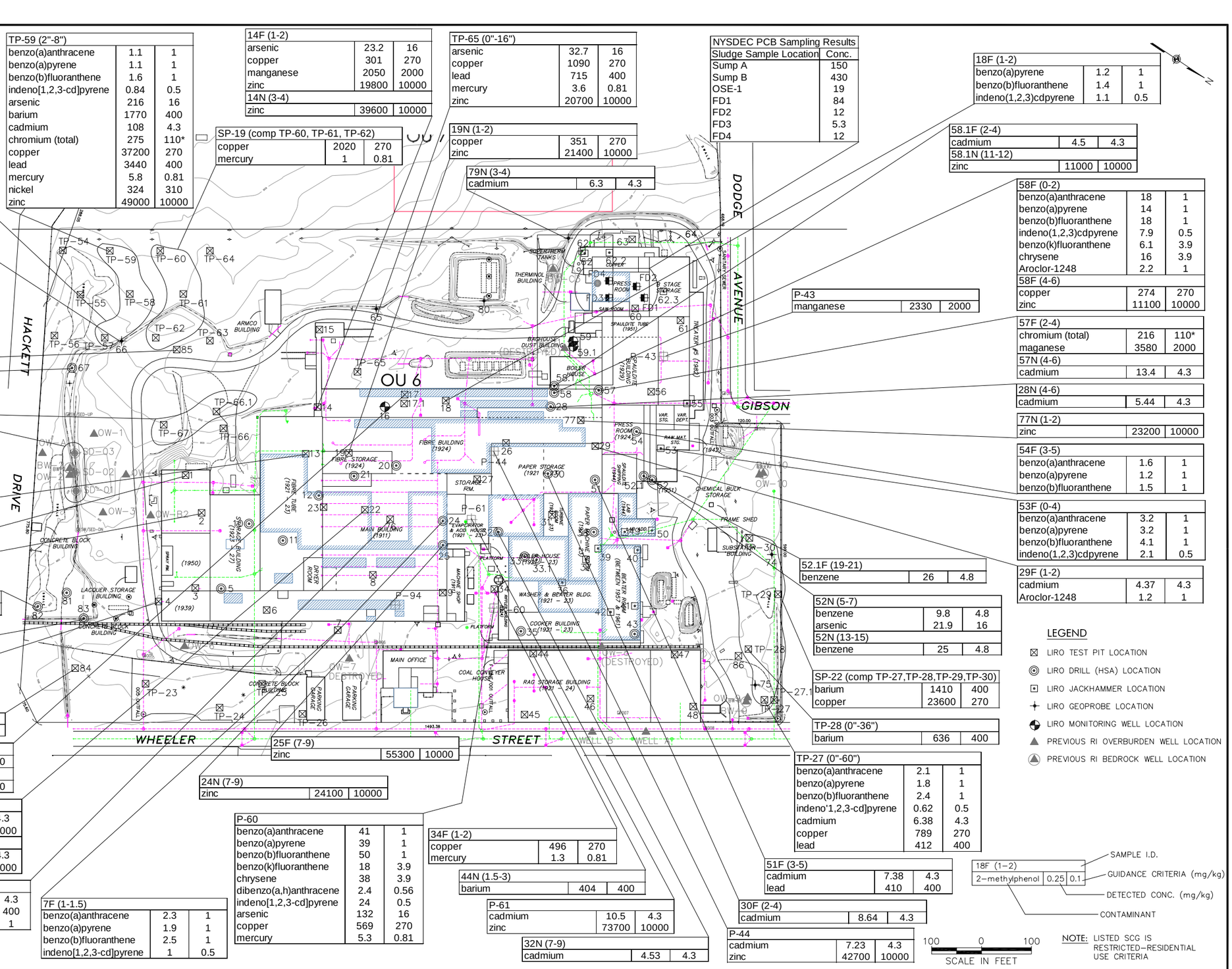
P-60		
benzo(a)anthracene	41	1
benzo(a)pyrene	39	1
benzo(b)fluoranthene	50	1
benzo(k)fluoranthene	18	3.9
chrysene	38	3.9
dibenzo(a,h)anthracene	2.4	0.56
indeno[1,2,3-cd]pyrene	24	0.5
arsenic	132	16
copper	569	270
mercury	5.3	0.81

34F (1-2)		
copper	496	270
mercury	1.3	0.81

44N (1.5-3)		
barium	404	400

P-61		
cadmium	10.5	4.3
zinc	73700	10000

32N (7-9)		
cadmium	4.53	4.3



24N (7-9)		
zinc	24100	10000

P-60		
benzo(a)anthracene	41	1
benzo(a)pyrene	39	1
benzo(b)fluoranthene	50	1
benzo(k)fluoranthene	18	3.9
chrysene	38	3.9
dibenzo(a,h)anthracene	2.4	0.56
indeno[1,2,3-cd]pyrene	24	0.5
arsenic	132	16
copper	569	270
mercury	5.3	0.81

LEGEND

- LIRO TEST PIT LOCATION
- LIRO DRILL (HSA) LOCATION
- LIRO JACKHAMMER LOCATION
- LIRO GEOPROBE LOCATION
- LIRO MONITORING WELL LOCATION
- PREVIOUS RI OVERBURDEN WELL LOCATION
- PREVIOUS RI BEDROCK WELL LOCATION

18F (1–2)
2–methylphenol | 0.25 | 0.1
SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

100 0 100
SCALE IN FEET

NOTE: LISTED SCG IS RESTRICTED–RESIDENTIAL USE CRITERIA

WARNING
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NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.: AMM
DESIGNED BY:
CHECKED BY:
DRAWN BY: ES

CLIENT: The City of Tonawanda
DATE: SEPTEMBER 2008
SCALE: AS SHOWN

JOB TITLE AND LOCATION: SPAULDING FIBRE SITE INVESTIGATIONS

DRAWING TITLE: RESTRICTED RESIDENTIAL EXCEEDANCES OPERABLE UNIT 6

LIRO JOB NO.: 08–49–446
SHEET OF
FIGURE NO. 6

J:\07\25368A Spaulding\CAD\Demo\Supplemental Investigation\Spaulding Supplemental Inv.dwg, 1/8/2009 11:12:40 PM, ES

REV-1

AJ-3 (1'-2')		
cadmium	4.51	4.3
zinc	17200	10000

C-4 (0-1')		
copper	1580	270

AE-2 (3'-5')		
Aroclor 1254	1.2	1
cadmium	15.2	4.3

AF-3 (0-2')		
cadmium	6.16	4.3
zinc	10400	10000

AG-1 (7')		
zinc	96200	10000

AD-2 (7.5'-8.5')		
zinc	14700	10000

BF-1 (1'-2')		
barium	444	400
chromium (total)	219	110
chromium (trivalent)	259	180

BF-2 (1'-2')		
barium	514	400
chromium (total)	227	110
chromium (trivalent)	258	180

BF-3 (1'-2')		
barium	462	400
chromium (total)	227	110
chromium (trivalent)	268	180

BG-1 (0-2')		
barium	477	400
chromium (total)	232	110
chromium (trivalent)	275	180

BG-2 (0-2')		
barium	480	400
chromium (total)	176	110
chromium (trivalent)	215	180

G-4 (0-2')		
arsenic	28.2	16

AF-2 (1.5'-2')		
cadmium	15.7	4.3
zinc	18000	10000

AC-4 (2'-3')		
cadmium	7.4	4.3

AA-4 (1'-2')		
arsenic	31.2	16

AK-5 (4'-6')		
zinc	25500	10000

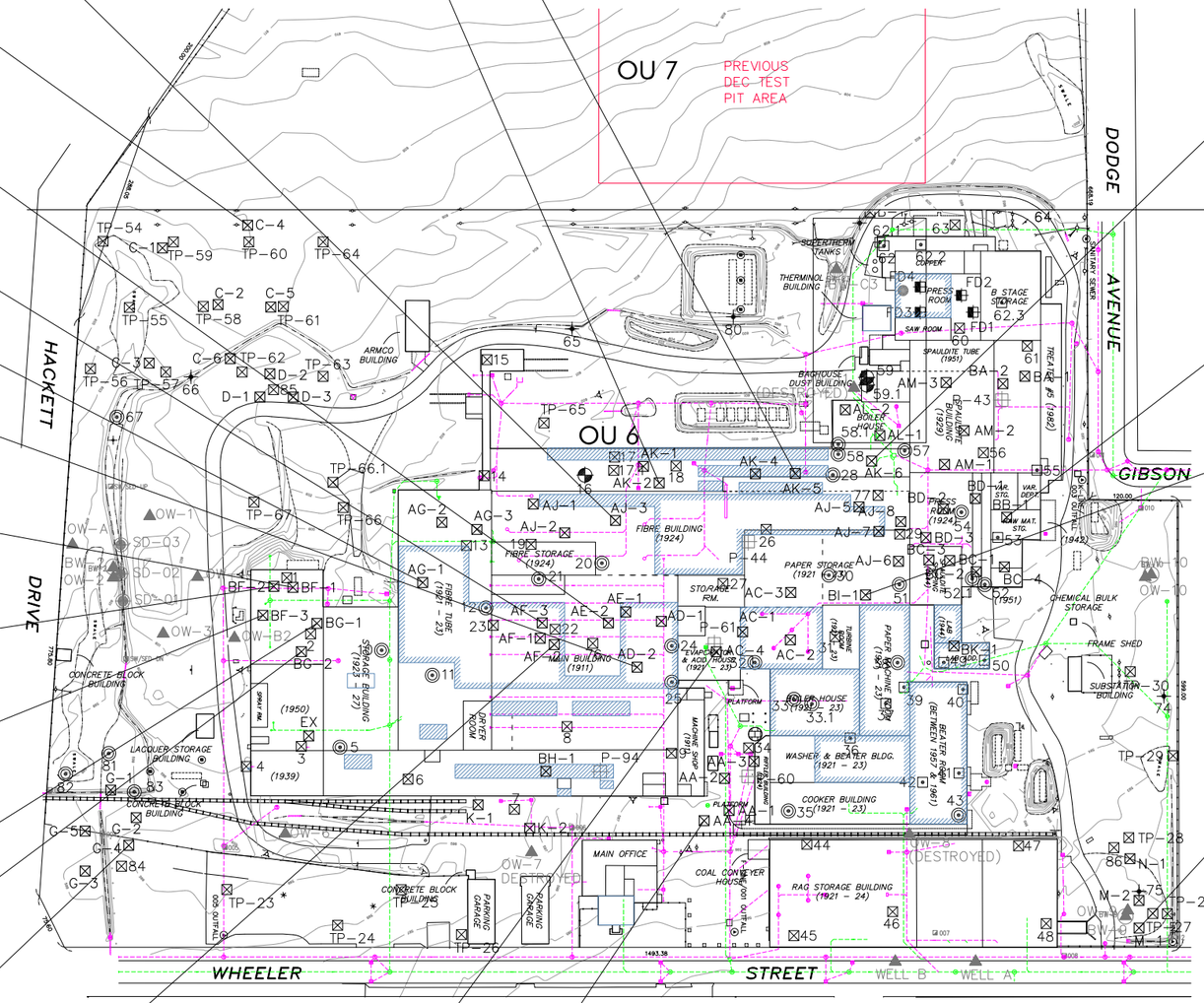
AK-2 (1'-2')		
benzo(a)pyrene	1.5	1
benzo(a)anthracene	1.5	1
benzo(b)fluoranthene	1.9	1
indeno(1,2,3-cd)pyrene	0.88	0.5

AK-6 (4'-6')		
cadmium	7.9	4.3
zinc	19600	10000

BB-1 (0-2')		
benzo(a)pyrene	1.2	1
benzo(a)anthracene	1.3	1
benzo(b)fluoranthene	1.5	1
indeno(1,2,3-cd)pyrene	0.74	0.5

BI-1 (3'-5')		
cadmium	9.09	4.3

M-1 (0-6")		
benzo(a)pyrene	19	1
benzo(a)anthracene	23	5.6
benzo(b)fluoranthene	28	5.6
benzo(k)fluoranthene	7.7	3.9
chrysene	20	3.9
dibenzo(a,h)anthracene	2.3	0.33
indeno(1,2,3-cd)pyrene	8.5	0.5



LEGEND

- LIRO ADDITIONAL TEST PIT LOCATIONS
- LIRO TEST PIT LOCATION
- LIRO DRILL (HSA) LOCATION
- LIRO JACKHAMMER LOCATION
- LIRO GEOPROBE LOCATION
- LIRO MONITORING WELL LOCATION
- PREVIOUS RI OVERBURDEN WELL LOCATION
- PREVIOUS RI BEDROCK WELL LOCATION

18F (1-2)		
2-methylphenol	0.25	0.1

SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

NOTE: LISTED SCG IS RESTRICTED-RESIDENTIAL USE CRITERIA

100 0 100
SCALE IN FEET

NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	CLIENT:	JOB TITLE AND LOCATION:	LIRO JOB NO.:
AMM	The City of Tonawanda	SPAULDING FIBRE SUPPLEMENTAL INVESTIGATIONS	08-49-446
DESIGNED BY:			SHEET OF
CHECKED BY:		DRAWING TITLE:	FIGURE NO.
DRAWN BY: ES	DATE: SEPTEMBER 2008	RESTRICTED RESIDENTIAL EXCEEDANCES OPERABLE UNIT 6	7
	SCALE: AS SHOWN		

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REV-1

TP-59 (2"-8")		
benzo(a)pyrene	1.1	1
arsenic	216	16
barium	1770	400
cadmium	108	9.3
copper	37200	270
lead	3440	1000
mercury	5.8	2.8
nickel	324	310
zinc	49000	10000

85F (0-1)		
benzo(a)anthracene	77	5.6
benzo(a)pyrene	66	1
benzo(b)fluoranthene	75	5.6
indeno(1,2,3)cd-pyrene	47	5.6
dibenzo(a,h)anthracene	3.8	0.56
barium	787	400
copper	1950	270
zinc	12600	10000

66F (0-0.5)		
benzo(a)pyrene	1.5	1

67F (0-0.5)		
Aroclor-1254	1.7	1

13N (2-3)		
zinc	24100	10000

SP-21 (comp TP-66.1, TP-67)		
arsenic	26.1	16
barium	686	400
cadmium	229	9.3
copper	12700	270
mercury	3.4	2.8
nickel	457	310
zinc	25000	10000

NYSDEC PCB Sampling Results	
Sediment Sample Loc.	Conc.
SD-01	6.49
SD-02	8.48
SD-03	11.7

1F (1-2)		
barium	455	400

2F (1-2)		
barium	417	400
2N (4-5)		
barium	404	400

83F (0-2)		
Aroclor-1254	2.6	1

4F (0-1)		
benzo(a)anthracene	72	5.6
benzo(a)pyrene	55	1
benzo(b)fluoranthene	73	5.6
chrysene	69	56
dibenz(a,h)anthracene	4.8	0.56
indeno(1,2,3)cd-pyrene	34	5.6
arsenic	47	16
barium	810	400
copper	770	270
lead	1190	1000
Aroclor 1254	17	1
4F (2-3)		
arsenic	34.9	16

SP-18 (comp TP-57, TP-58, TP-59)		
arsenic	18.3	16

SP-19 (comp TP-60, TP-61, TP-62)		
copper	2020	270

14F (1-2)		
arsenic	23.2	16
copper	301	270
zinc	19800	10000
14N (3-4)		
zinc	39600	10000

TP-65 (0"-16")		
arsenic	32.7	16
copper	1090	270
mercury	3.6	2.8
zinc	20700	10000

19N (1-2)		
copper	351	270
zinc	21400	10000

18F (1-2)		
benzo(a)pyrene	1.2	1

58.1N (11-12)		
zinc	11000	10000

NYSDEC PCB Sampling Results	
Sludge Sample Location	Conc.
Sump A	150
Sump B	430
OSE-1	19
FD1	84
FD2	12
FD3	5.3
FD4	12

58F (0-2)		
benzo(a)anthracene	18	5.6
benzo(a)pyrene	14	1
benzo(b)fluoranthene	18	5.6
indeno(1,2,3)cd-pyrene	7.9	5.6
Aroclor-1248	2.2	1
58F (4-6)		
copper	274	270
zinc	11100	10000

57N (4-6)		
cadmium	13.4	9.3

P-44		
zinc	42700	10000

77N (1-2)		
zinc	23200	10000

54 F (3-5)		
benzo(a)pyrene	1.2	1

29F (1-2)		
Aroclor-1248	1.2	1

53F (0-4)		
benzo(a)pyrene	3.2	1

52N (5-7)		
arsenic	21.9	16

P-61		
cadmium	10.5	9.3
zinc	73700	10000

24N (7-9)		
zinc	24100	10000

25F (7-9)		
zinc	55300	10000

TP-28 (0"-36")		
barium	636	400

SP-22 (comp TP-27,TP-28,TP-29,TP-30)		
barium	1410	400
copper	23600	270

P-94		
zinc	42500	10000

44N (1.5-3)		
barium	404	400

P-60		
benzo(a)anthracene	41	5.6
benzo(a)pyrene	39	1
benzo(b)fluoranthene	50	5.6
benzo(k)fluoranthene	18	56
chrysene	38	56
dibenzo(a,h)anthracene	2.4	0.56
indeno[1,2,3-cd]pyrene	24	5.6
arsenic	132	16
copper	569	270
mercury	5.3	2.8

TP-27 (0"-60")		
benzo(a)pyrene	1.8	1
copper	789	270

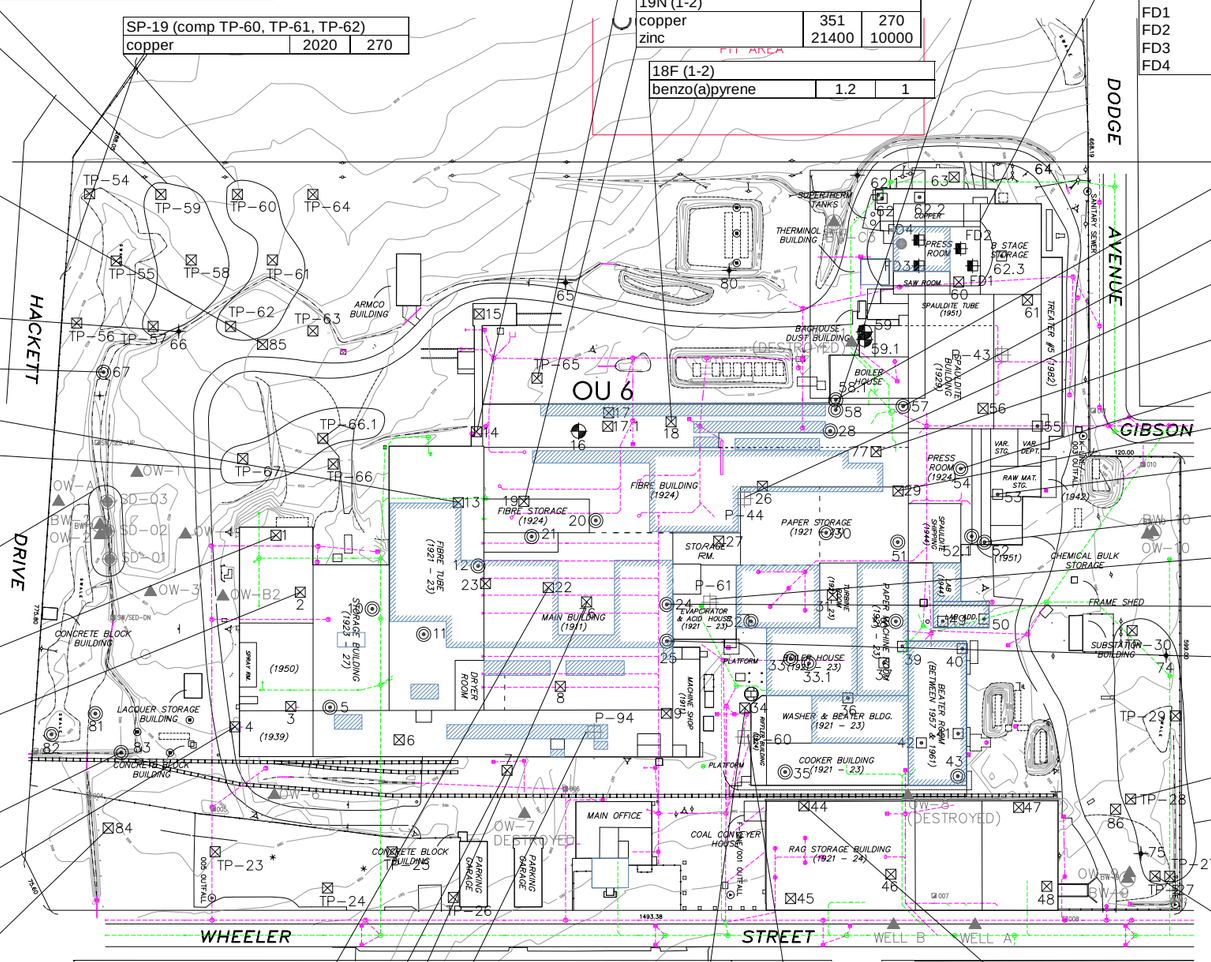
84F (1-2)		
arsenic	51.7	16

34F (1-2)		
copper	496	270

22F (1-2)		
zinc	20900	10000
22N (2-3)		
cadmium	43.3	9.3
zinc	26700	10000

76F (3-4)		
cadmium	12.8	9.3
Aroclor-1248	2	1

7F (1-1.5)		
benzo(a)pyrene	1.9	1



LEGEND

- LIRO TEST PIT LOCATION
- LIRO DRILL (HSA) LOCATION
- LIRO JACKHAMMER LOCATION
- LIRO GEOPROBE LOCATION
- LIRO MONITORING WELL LOCATION
- PREVIOUS RI OVERBURDEN WELL LOCATION
- PREVIOUS RI BEDROCK WELL LOCATION

18F (1–2)		
2–methylphenol	0.25	0.1

SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

100 0 100
SCALE IN FEET

NOTE: LISTED SCG IS COMMERCIAL USE CRITERIA

NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	AMM
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	ES
CLIENT:	The City of Tonawanda
DATE:	SEPTEMBER 2008
SCALE:	AS SHOWN
JOB TITLE AND LOCATION:	SPAULDING FIBRE SITE INVESTIGATIONS
DRAWING TITLE:	COMMERCIAL EXCEEDANCES OPERABLE UNIT 6
LIRO JOB NO.:	08-49-446
SHEET	OF
FIGURE NO.	8

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REV-1

C-4 (0-1')		
copper	1580	270

AG-3 (1.5'-2')		
zinc	57200	10000

AE-2 (3'-5')		
cadmium	15.2	9.3

AF-3 (0'-2')		
zinc	10400	10000

AG-1 (7')		
zinc	96200	10000

BF-1 (1'-2')		
barium	444	400

BF-2 (1'-2')		
barium	514	400

BF-3 (1'-2')		
barium	462	400

BG-1 (0-2')		
barium	477	400

BG-2 (0-2')		
barium	480	400

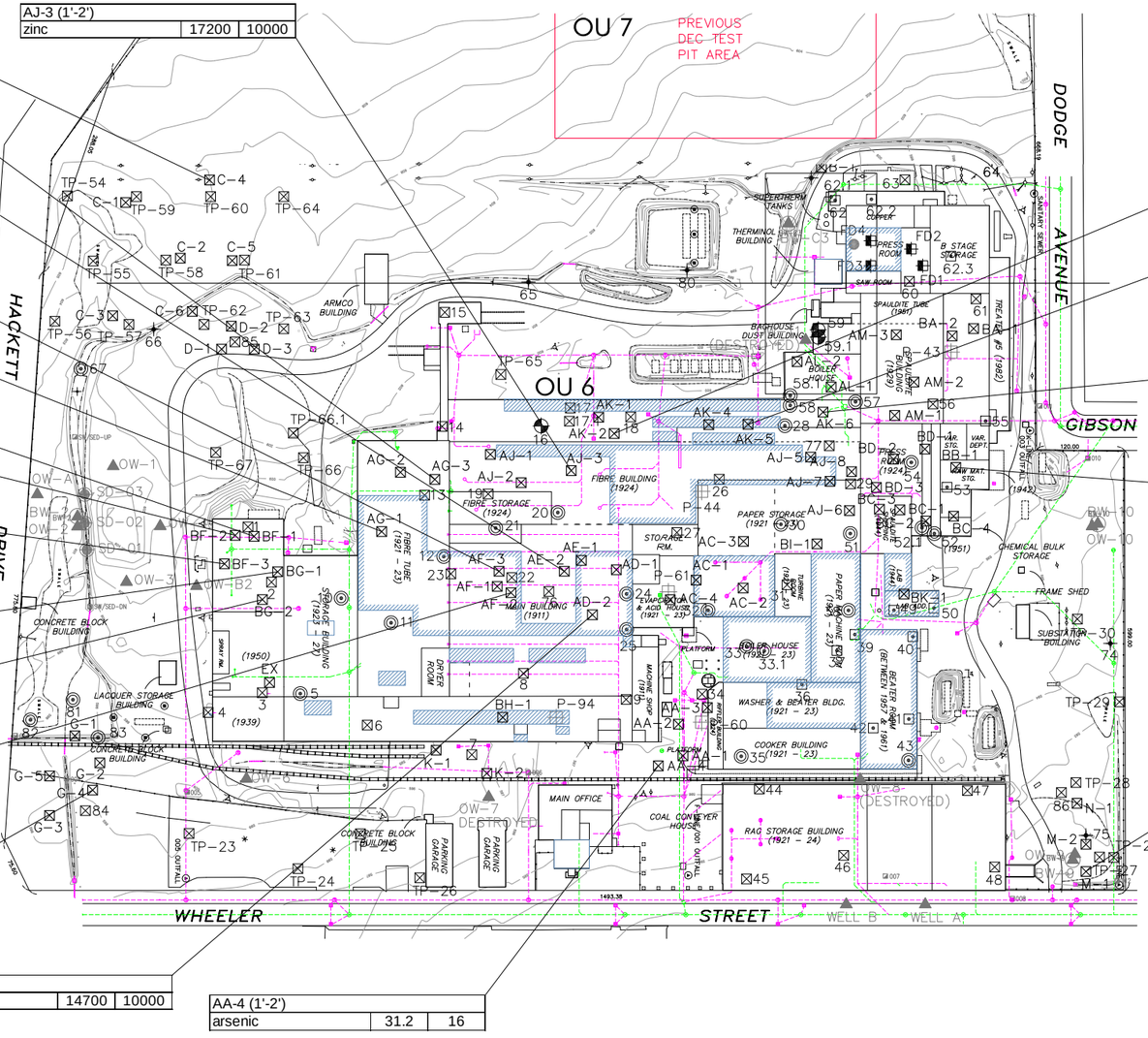
AF-2 (1.5'-2')		
cadmium	15.7	4.3
zinc	18000	10000

G-4 (0-2')		
arsenic	28.2	16

AD-2 (7.5'-8.5')		
zinc	14700	10000

AA-4 (1'-2')		
arsenic	31.2	16

AJ-3 (1'-2')		
zinc	17200	10000



AK-2 (1'-2')		
benzo(a)pyrene	1.5	1

AK-5 (4'-6')		
zinc	25500	10000

AK-6 (4'-6')		
zinc	19600	10000

BB-1 (0'-2')		
benzo(a)pyrene	1.2	1

M-1 (0-6")		
benzo(a)pyrene	19	1
benzo(a)anthracene	23	5.6
benzo(b)fluoranthene	28	5.6
dibenzo(a,h)anthracene	2.3	0.56
indeno(1,2,3-cd)pyrene	8.5	5.6

LEGEND

- LIRO ADDITIONAL TEST PIT LOCATIONS
- LIRO TEST PIT LOCATION
- LIRO DRILL (HSA) LOCATION
- LIRO JACKHAMMER LOCATION
- LIRO GEOPROBE LOCATION
- LIRO MONITORING WELL LOCATION
- PREVIOUS RI OVERBURDEN WELL LOCATION
- PREVIOUS RI BEDROCK WELL LOCATION

18F (1–2)		
2–methylphenol	0.25	0.1

SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

NOTE: LISTED SCG IS COMMERCIAL USE CRITERIA

100 0 100
SCALE IN FEET

NO.	DATE	DESCRIPTION

REVISIONS

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	CLIENT:	JOB TITLE AND LOCATION:	LIRO JOB NO.:
AMM	The City of Tonawanda	SPAULDING FIBRE SUPPLEMENTAL INVESTIGATIONS	08–49–446
DESIGNED BY:			SHEET OF
CHECKED BY:		DRAWING TITLE:	FIGURE NO.
DRAWN BY: ES	DATE: SEPTEMBER 2008	SCALE: AS SHOWN	9

COMMERCIAL EXCEEDANCES
OPERABLE UNIT 6

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REV-1

14F (1-2)		
di-n-butylphthalate	8.3	8.1

67F (0-0.5)		
di-n-butylphthalate	230	8.1

4F (0-1)		
di-n-butylphthalate	260	8.1
dimethyl phthalate	3	2

83F (0-2)		
di-n-butylphthalate	440	8.1

G-1 (0-2')		
di-n-butylphthalate	43	8.1

58F (0-2)		
di-n-butylphthalate	210	8.1

56N (1-2)		
di-n-butylphthalate	50	8.1

53F (2-4)		
di-n-butylphthalate	280	8.1

52.1F (1-3)		
di-n-butylphthalate	9.6	8.1

BC-4 (3-5')		
di-n-butylphthalate	17	8.1

49F (0-2)		
di-n-butylphthalate	530	8.1

OU 7

PREVIOUS DEC TEST PIT AREA

OU 6

HACKETT

DODGE

AVENUE

GIBSON

DRIVE

WHEELER

STREET

(DESTROYED)

LEGEND

- LIRO ADDITIONAL TEST PIT LOCATIONS
- LIRO TEST PIT LOCATION
- LIRO DRILL (HSA) LOCATION
- LIRO JACKHAMMER LOCATION
- LIRO GEOPROBE LOCATION
- LIRO MONITORING WELL LOCATION
- PREVIOUS RI OVERBURDEN WELL LOCATION
- PREVIOUS RI BEDROCK WELL LOCATION

18F (1–2)		
2–methylphenol	0.25	0.1

SAMPLE I.D.
GUIDANCE CRITERIA (mg/kg)
DETECTED CONC. (mg/kg)
CONTAMINANT

NOTE: LISTED SCG IS TAGM 4046 CRITERIA

100 0 100
SCALE IN FEET

NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	CLIENT:	JOB TITLE AND LOCATION:	LIRO JOB NO.:
AMM	The City of Tonawanda	SPAULDING FIBRE SITE AND SUPPLEMENTAL INVESTIGATIONS	08-49-446
DESIGNED BY:			SHEET OF
CHECKED BY:		DRAWING TITLE: TAGM 4046 EXCEEDANCES OPERABLE UNIT 6	FIGURE NO. 10
DRAWN BY: ES	DATE: SEPTEMBER 2008	SCALE: AS SHOWN	

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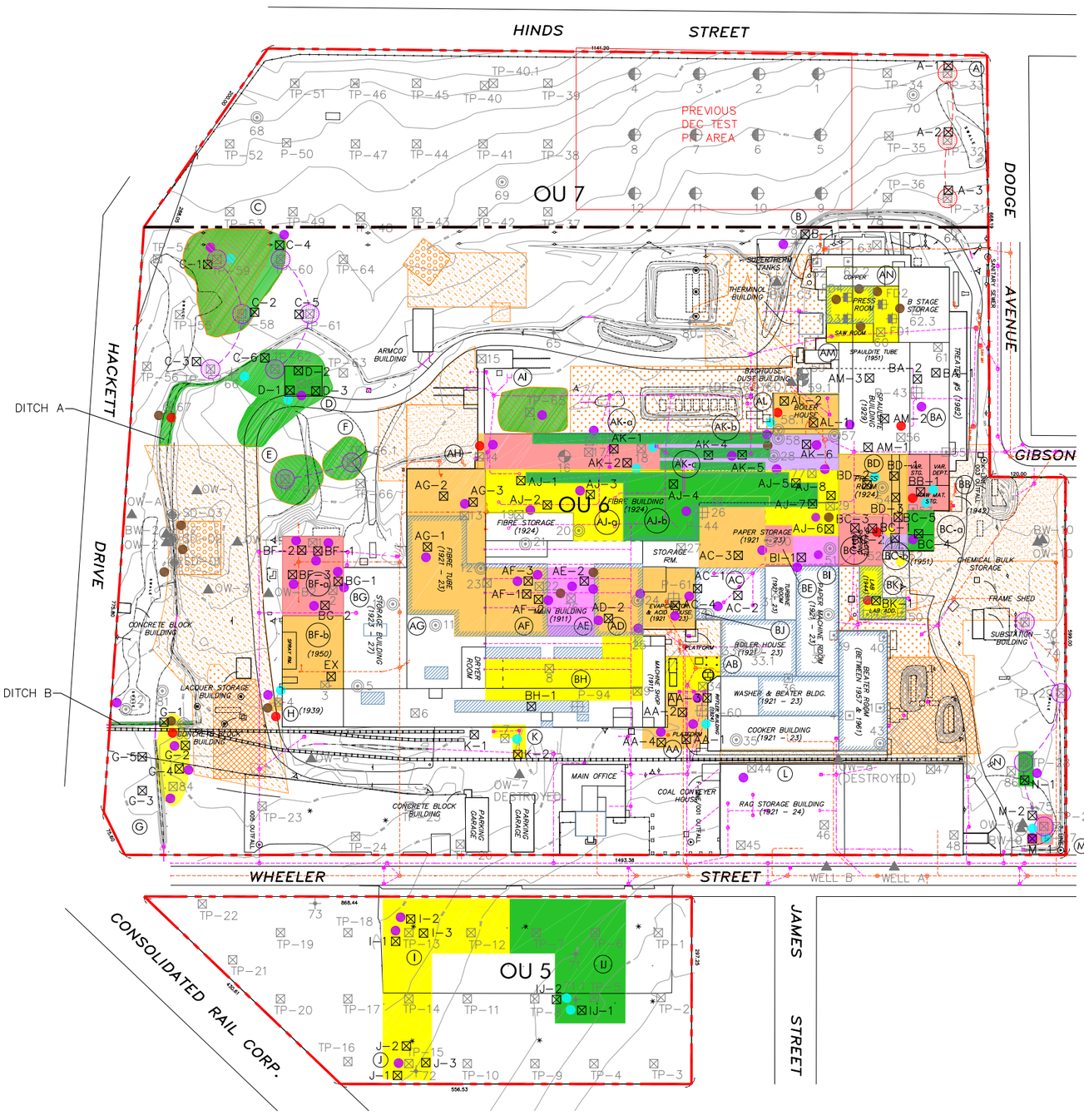
REV-1

AREA ID	SUPPLEMENTAL INVESTIGATION AREA (SF)	DEPTH (FT)	VOLUME (CY)
A	–	–	–
B	–	–	–
C	20,115	1	745
D	15,445	1	572
E	5,236	1	194
F	3,651	1	136
G	5,954	2	442
H	400	3	45
I	27,252	2	2,019
IJ	28,934	1	1,072
J	5,320	2	395
K	1,689	2	126
L	–	–	–
M	1,458	4	216
N	1,278	1	48
AA	7,337	3	816
AB	4,330	2	321
AC	18,111	3	2,013
AD	8,369	3	930
AE	8,154	5	1,510
AF	10,658	3	1,185
AG	24,328	3	2,704
AH	7,680	3	854
AI	7,369	1	273
AJ–a	24,770	2	1,835
AJ–b	34,958	1	1,295
AK–a	12,650	4	1,875
AK–b	5,364	6	1,192
AK–c	3,707	6	824
AL	6,570	3	730
AM	–	–	–
AN	10,231	2	758
BA	–	–	–
BB	5,950	4	882
BC–a	2,603	1	97
BC–b	949	6	211
BC–c	6,550	4	971
BD	10,760	3	1,196
BE	1,900	4	282
BF–a	12,308	4	1,824
BF–b	11,263	3	1,252
BG	2,500	4	371
BH	18,557	2	1,375
BI	3,500	5	649
BJ	462	3	52
BK	3,880	2	288
TOTAL VOLUME (CY)			34,575
DITCH A	1,984	1	74
DITCH B	663	1	25
TOTAL VOLUME (CY)			99



LEGEND

- LIRO ADDITIONAL TEST PIT LOCATIONS
- LIRO TEST PIT LOCATION
- LIRO DRILL (HSA) LOCATION
- LIRO JACKHAMMER LOCATION
- LIRO GEOPROBE LOCATION
- LIRO MONITORING WELL LOCATION
- PREVIOUS RI OVERBURDEN WELL LOCATION
- PREVIOUS RI BEDROCK WELL LOCATION
- PREVIOUS SEDIMENT SAMPLE LOCATION
- PREVIOUS SLUDGE SAMPLE LOCATION
- LIRO PRELIMINARY SOIL SAMPLE LOCATION

RESTRICTED RESIDENTIAL CRITERIA

- METALS EXCEEDANCE
- PAH's EXCEEDANCE
- PCB's EXCEEDANCE
- TAGM SVOC's EXCEEDANCE
- BENZENE EXCEEDANCE
- COMPOSITE SAMPLE EXCEEDANCE

- OU1: REGULATED WASTES (STATE SUPERFUND–EXCLUDED FROM PROJECT SCOPE)
- OU2: PCB CONTAMINATED WASTES – IRM AREAS (STATE SUPERFUND–EXCLUDED FROM PROJECT SCOPE)
- OU3: PETROLEUM CONTAMINATED WASTES (STATE SUPERFUND–EXCLUDED FROM PROJECT SCOPE)
- OU4: MULTIPLE CONTAMINANT WASTES (STATE SUPERFUND–EXCLUDED FROM PROJECT SCOPE)
- EXPANDED AREA OF CONTAMINATED WASTES (STATE SUPERFUND–EXCLUDED FROM PROJECT SCOPE)
- APPROXIMATE EXTENT OF BUTTON ASH
- PROPERTY LIMIT/AREA DEMARCATION

100 0 100
SCALE IN FEET

WARNING

IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, OTHER THAN THOSE WHOSE SEAL APPEARS ON THIS DRAWING, TO ALTER IN ANY WAY AN ITEM ON THIS DRAWING. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NO.	DATE	DESCRIPTION

REVISIONS

LiRo Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

PROJ. ENG.:	AMM
DESIGNED BY:	
CHECKED BY:	SF
DRAWN BY:	ES
CLIENT:	The City of Tonawanda
DATE:	SEPTEMBER 2008
SCALE:	AS SHOWN
JOB TITLE AND LOCATION:	SPAULDING FIBRE DEMOLITION
LIRO JOB NO.:	08–49–446
SHEET	OF
DRAWING TITLE:	SAMPLE LOCATIONS AND REMEDIATION AREA
PLATE NO.	1

J:\07\25306A Spaulding\CAD\PRAP figs for DEC\Spaulding Sampling Plan REV_DITCH (2).dwg, 10/2/2009 8:17:57 AM, ES

ATTACHMENT 1

Test Pit and Split Spoon Logs

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.24.08	Elevation:
Date Completed: 6.24.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: A-1	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	4" gray brown clayey topsoil.
-	Regraded/fractured.	red-brown silt, some sand and cobbles on north side of pit. Possibly re-graded.
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-1 & 1-3 PAH.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.24.08	Elevation:
Date Completed: 6.24.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: A-2.	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	4" gray / brown clayey top soil
-	Reworked/native	Red-Brown clay trace rounded pebbles darker seam at 6"
-2-	native	Reddish-Brown clayey silt.
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-1 4 1-S for PAH.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.04.08	Elevation:
Date Completed: 6.04.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: A-3.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover/Topsoil	Brown-Red/Brown clay heavy roots top 4" rocks a.t 1"-2" and 6"-8" could be segregated
-	rotten	Darker gray seam in clay ~2'
-2-		Reddish brown clayey silt
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Samples @ 0-1 & 1-3 for PAH

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.25.08	Elevation:
Date Completed: 6.25.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: B-1	Approx. water table depth: no water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	Topsoil	Clay loam top gray-brown 4"
-2-	Regraded/native	4"-48" Reddish Brown clay with coarse gravel, small cobbles to 4' some silt - presently regraded.
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled @ 2'-4' for Col.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·03·08	Elevation:
Date Completed: 6·03·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: K-2.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	2" asphalt.
	fill	12" slag coal ash Brown fill sandy rounded fine-med gravel
-2-	native.	clayey silt reddish brown @ 14"
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for PAH

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·23·08	Elevation:
Date Completed: 6·23·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: TP-1	Approx. water table depth: NO water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover/Fill	0-7" dark brown silty loam w/ limestone & concrete pieces
-	native	7"-2' Reddish-Brown clayey silt.
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-0.5' & 1'-2' for PAH, Cr, Cd, Cu, Pb.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.03.08	Elevation:
Date Completed: 6.03.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: M-8.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Topsoil	8" dark brown silty loam no solid evidence of fill
-	native	8"-2' Reddish Brown Clayey silt.
-2-		Dry to moist
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for PAH Ba Cd Cu Hg.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: TP-1	Approx. water table depth: No water observed moist.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover → fill	dark brown-black gravel w/ some degraded slag moist 0-12"
-2-	Native	moist Reddish Brown clayey silt 12"-36"
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at TP-1 + 2-B for Ba, Cu.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AA-1	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	2" asphalt
-	fill	Black/gray sand and gravel. lots of pea gravel near sewer
-2-		
-		Clay & gravel at 32"
-4-	Native/Regraded	Clay & Silt at 42"
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' & 3'-3.5' for PAH, As, Cu, Hg.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AAZ	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	2" degraded asphalt.
-	fill	brown sandy gravel fill / sewer w/ pea gravel
-2-		too much pea gravel to reach native on northside of TP.
-		
-4-	Native	Clay & Silt on South end of pit @ 3'
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 3'-3.5' PAH, As, Cu, Hg.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AA-3	Approx. water table depth: ~4' water seeping in.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	14" black clayey fill sand silt and brick
-2-	fill.	brown / white / gray ash fill
-4-	Native	clay at 3.5', Castiron pipe set in clay w/ no bedding
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 3.5' for PAH, As, Cu, Hg.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6-26-08	Elevation:
Date Completed: 6-26-08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AA-4	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	CORE	3" asphalt
-	FILL	1" Brown sand and gravel
-2-		36" black angular with a little slag seam and cinders/millings
-	Native	Brown Clay & Silt, very moist at 2.5 ft
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Samples at 1'-2' and 2.5-3. PAH, As, Cu, Hg

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·20·08	Elevation:
Date Completed: 6·20·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AC-3.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	6" concrete w/ wire mesh.
-	fill	black angular sand w/ patches of fine-medium tan sand
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1-2 + 2-3 for GR, Sn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·20·08	Elevation:
Date Completed: 6.20.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AC-4.	Approx. water table depth: no water obse

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	6" concrete
-	native.	clayey silt reddish brown.
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1-2 & 2-3 for (D), En

Comments:

PID– Background Reading

LiRo Engineers, Inc.

BORING NO. AD-2

PROJECT	Spaulding Fibre ERP - Supplemental
CLIENT	ECIDA
BORING CONTRACTOR	Buffalo Drilling

GROUNDWATER					CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		splitspoon		
				DIA.		2"		
				WT.		jackhammer		
				FALL				

* POCKET PENETROMETER READING

SHEET:	
JOB NO:	
BORING LOCATION:	
GROUND ELEVATION:	
DATE STARTED:	7/31/2008
DATE FINISHED:	7/31/2008
DRILLER:	Jeff Hubert
GEOLOGIST:	Steve Frank
REVIEWED BY:	

DEPTH	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS PID	REMARKS moisture
				1"				VOID (INSIDE VAT)			
5				N/A				6" CONCRETE VAT FLOOR			
		1	SS		80%	DARK GRAY		CLAY & SILT, TRACE GRAVEL		6PPM	V. MOIST
		2	SS		90%	BRN				0PPM	MOIST
10								REFUSAL AT 8.5' SUSPECT ANOTHER SLAB			
15											
20											
25											
30											
35											

COMMENTS: Split spoon driven using pnuematic jackhammer

PROJECT NO. : _____ **BORING NO. :** AD-2

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: C-1	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover/Fill	button ash
-2-	native	moist reddish brown clayey silt trace fine gravel.
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: sampled at 0-2 PAH, As, Ba, Cd, Cr, Cu, Hg, Ni, Pb, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6-19-08	Elevation:
Date Completed: 6-19-08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: C-8.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover/Topsoil	8" loamy brown top soil roots
-	native	clay / silt to 8'
-2-		reddish brown.
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-2 for As.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·19·08	Elevation:
Date Completed: 6·19·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: C-3	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover / Topsoil	Dark Brown clayey topsoil, lots of roots & gravel.
-	native.	moist red-brown clay/silt to fine gravel
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 0-2 for As.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: C-4	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover/Fill	13" Black fill sand lots of roofing (looks like tar paper) mixed w/ ash, sand, silt, clay.
-		
-2-	native.	5" grayish clayey silt / moist reddish Brown clay.
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0'-1' & 1'-2' Cu & Hg.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: C-5	Approx. water table depth: no water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover/Topsoil	clay loam top.
-	Native	reddish brown clayey silt
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 0'-1' & 1'-2' for. Cu, Hg

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: C-6.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Fill	6" Dark brown Asn clay silt gravel tr. organics.
-	Native	Clayey silt to depth grades from gray/brown to red brown moist
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled 0-1 & 1-2 for Cu, Hg

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.18.08	Elevation:
Date Completed: 6.18.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: D-B1	Approx. water table depth: No water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	sand, gravel silt (looks like road-base). gray
-	native.	clay & silt - reddish brown, moist
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for PAH, Ba, Cd, Cu, Pb, Zn

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: D-2	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover/Fill	5" clay silt gravel.
-	ash.	4" of ash (did not see any bottom)
-2-	native	24" clayey silt reddish brown
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 1'-2', PAH, Ba, Cd, Cu, Pb, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: D-3.	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Top / Road Subbase.	6" sand gravel silt.
-	Cover / Fill	3" ash (did not see any buttons)
-2-		24" moist clay silt reddish brown.
-	native.	
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled as 1'-2' for PAH, Ba, Cd, Cu, Pb, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.20.08	Elevation:
Date Completed: 6.20.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: G-1	Approx. water table depth: water was seeping in @ 3'

DESCRIPTION

DEPTH	Soil Unit	
-0-	TOPSOIL	top soil w/ organics (roots)
-		clayey silt reddish brown w/ water seeping in @ 3'
-2-	native	
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 0-2 & 2-3 for PCB, Di-N, Cd.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.20.08	Elevation:
Date Completed: 6.20.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: G-2.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0- - -2-	TOPSOIL SILTY CLAY	top soil, organics, roots throughout. REDDISH BROWN - MOIST
-4- - -6- - -8- - -10- - -12- - -14- - -16-		

General:

Analytical Samples: Sampled at 0-2 & 2-3 for PCB, Oil-N, Cd.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08.	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: G-3.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover/Fill	3" dark organic gravel silt some clay top
-	native	gray then Brown Clay
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled as 0-2 for As, Pb

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.03.08	Elevation:
Date Completed: 6.03.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: G-4	Approx. water table depth: no water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover/ Topsoil	3" clay loam organic top.
-	Fill	21" sand and slag fill Dark brown moist
-2-	↓ native.	reddish Brown clay @ 24"
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0 - 2 for As, Cd.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO INC.
Date Started: 6-23-08	Elevation:
Date Completed: 6-23-08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: G-5	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Topsoil 5"	Dark brown organic gravelly silt, some clay
-	Native Clay	Gray grading to brown silty clay to 2 Ft. bottom of trench
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 0-1' for As, Cd.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: T-1	Approx. water table depth: wet at 10" (on top of clay)

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	8" asphalt
-	fill	10" brown-dark sandy gravel/fill/subbase. wet on top of clay.
-2-	native	Reddish Brown Mottled Clay 12"-24"
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled 0-2 for As.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: I-2.	Approx. water table depth: no water observed however moist all through

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	2" asphalt
	Fill	6" sub base black / DK Brown sand and gravel very moist.
-		8"-2'
-2-	Native	reddish brown clay, moist.
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-2 for As.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08.	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: I-3	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	8" asphalt.
	fill	6" Dark Brown Sand and gravel Subbase / coal + cinders.
-2-	native	reddish brown clay, dry.
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled as 0-2 for AS.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: J-1	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Fill	black dark brown sandy gravel, heavy roots in top 4" brown moist to dry clay at 8"
-2-	native	reddish brown clay
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: sampled at 0-2 for AS

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·23·08	Elevation:
Date Completed: 6·23·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: J-2.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	"FILL	15" black/dk brown sandy gravel w/ some degraded slag Top 4" has heavy root
-		
-2-	native	Reddish Brown Clay at 15"-24"
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sample at 0-2 for AS,

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: J-3	Approx. water table depth: no water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	FILL	18" black/ dark brown sand / gravel. Fill organic top some cinders in fill
-		moist
-2-	native	Reddish brown clay at 18"
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-8 for AS.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: IJ-1	Approx. water table depth: Perched water on top of clay.

DESCRIPTION

DEPTH	Soil Unit	
-0-	FILL	8" black dark brown very wet sandy gravel degraded slag heavy roots/organics to ~4"
	native	reddish brown clayey silt
-2-		
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 0-0.5' for PAH

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·23·08	Elevation:
Date Completed: 6·23·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: IS-2	Approx. water table depth: very moist at 4"

DESCRIPTION

DEPTH	Soil Unit	
-0-	FILL	8" black/dark brown very moist sandy gravel degraded slag, heavy roots/organics top 4"
-	Native	Reddish-brown Clay & Silt at 8"
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-0.5' for PAH

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.03.08	Elevation:
Date Completed: 6.03.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: K-1	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	2" asphalt.
	fill	black angular sand w/ slag. RAIL TIES ON E SIDE OF PIT
-		~1% decreasing slag.
-2-	Native	Reddish Brown clayey silt. @ 22"
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 1-2 for PAH, MN.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·23·08	Elevation:
Date Completed: 6·23·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: K-2.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	2" asphalt.
	fill	12" slag coal ash Brown fill sandy rounded fine-med gravel
-2-	native.	clayey silt reddish brown @ 14"
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for PAH

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: M-1	Approx. water table depth: NO water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover/Fill	0-7" dark brown silty loam w/ limestone & concrete pieces
-	Native	7"-2' Reddish-Brown clayey silt
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-0.5' & 1'-2' for PAH, Ba, Cd, Cu, Pb.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.03.08	Elevation:
Date Completed: 6.03.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: M-8.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Topsoil	8" dark brown silty loam no solid evidence of fill
-	native	8"-2' Reddish Brown Clayey silt.
-2-		Dry to moist
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for PAH Ba Cd Cu Pb.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: D-1	Approx. water table depth: no water observed moist.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover → fill	dark brown-black gravel w/ some degraded slag moist 0-12"
-2-	native	moist reddish brown clayey silt 12"-36"
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 0-1 + 2-3 for Ba, Cu.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6-23-08	Elevation:
Date Completed: 6-23-08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: N-2	Approx. water table depth: No water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	Topsoil/ Native	6" Dark brown Silty clay loam grading to brown Clayey Silt
-2-		
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples Not Sampled

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6-23-08	Elevation:
Date Completed: 6-23-08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: N-3	Approx. water table depth: No water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	TOPSOIL/ NATIVE	8" Brown Silty Clay Loam grading to Brown Clayey Silt
-2-		
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples Not Sampled

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AA-1	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	2" asphalt
-	fill	Black/gray sand and gravel lots of pea gravel near sewer
-2-		
-		Clay & gravel at 32"
-4-	Native/Regraded	Clay & Silt at 42"
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' & 3'-3.5' for PAH, As, Cu, Hg.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AAZ	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	2" degraded asphalt.
-	fill	brown sandy gravel fill / sewer w/ pea gravel
-2-		too much pea gravel to reach native on northside of TP.
-		
-4-	Native	Clay & Silt on South end of pit @ 3'
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 3'-3.5' PAH, As, Cu, Hg.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.23.08	Elevation:
Date Completed: 6.23.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AA-3	Approx. water table depth: ~4' water seeping in.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	14" black clayey fill sand silt and brick
-2-	fill.	brown / white / gray ash fill
-4-	Native	clay at 3.5', Cast-iron pipe set in clay w/ no bedding
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 3.5' for PAH, As, Cu, Hg.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.26.08	Elevation:
Date Completed: 6.26.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AA-4	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	3" asphalt
-		1" Brown sand and gravel
-2-	FILL	36" black angular with a little slag seam and cinders / millings
-	Native	Brown Clay & Silt, very moist at 2.5 ft
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Samples at 1-2' and 2.5-3. PAH, As, Cu, Hg

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·20·08	Elevation:
Date Completed: 6·20·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AC-3.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" concrete w/ wire mesh.
-2-	fill	black angular sand w/ patches of fine - medium tan sand
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 1-2 + 2-3 for Cd, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.20.08	Elevation:
Date Completed: 6.20.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AC-4.	Approx. water table depth: no water obse

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	6" concrete
-2-	native.	clayey silt reddish brown.
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 1-2 & 2-3 for (Cd, Zn

Comments:

PID– Background Reading

LiRo Engineers, Inc.

BORING NO. AD-2

PROJECT	Spaulding Fibre ERP - Supplemental
CLIENT	ECIDA
BORING CONTRACTOR	Buffalo Drilling
SHEET:	
JOB NO:	
BORING LOCATION:	
GROUND ELEVATION:	
DATE STARTED:	7/31/2008
DATE FINISHED:	7/31/2008
DRILLER:	Jeff Hubert
GEOLOGIST:	Steve Frank
REVIEWED BY:	

GROUNDWATER				CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	splitspoon		
				DIA.	2"		
				WT.	jackhammer		
				FALL			
				* POCKET PENETROMETER READING			

DEPTH	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS PID	REMARKS moisture
				1"				VOID (INSIDE VAT)			
5				N/A				6" CONCRETE VAT FLOOR			
		1	SS		80%	DARK GRAY		CLAY & SILT, TRACE GRAVEL		6PPM	V. MOIST
		2	SS		90%	BRN				0PPM	MOIST
10								REFUSAL AT 8.5' SUSPECT ANOTHER SLAB			
15											
20											
25											
30											
35											

COMMENTS: Split spoon driven using pnuematic jackhammer

PROJECT NO. : _____ **BORING NO. :** AD-2

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·20·08	Elevation:
Date Completed: 6·20·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AE1	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	6" concrete w/ rebar.
-	fill	gravels and construction fill material
-2-	native.	clayey/silt reddish Brown.
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 2-3 for PCB, PAH & PID.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·20·08	Elevation:
Date Completed: 6·20·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AE2.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	6" concrete w/ wire mesh.
-	fill	black angular sand w/ gravels.
-2-		bagged laminant dust mixed within
-		
-4-	fill	black angular sand w/ gravel
-6-	CONCRETE SLAB AT 55" BELOW MAIN FLOOR	
-		[Re-excavated on 6/25/08 and sampled bagged material for TCLP/RCRA analysis. Also sampled matrix for VOC analysis]
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled 3'-5' for TAL metals, SVOC & PCBs.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.25.08	Elevation:
Date Completed: 6.25.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AF-2.	Approx. water table depth: NO water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover.	0-6.5" reinforce concrete.
	fill	6.5"-9" slag
-	native/Regraded	9"-24" brown regateered clay/grey silty clay very moist
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1.5'-2' Cd, En.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.25.08	Elevation:
Date Completed: 6.25.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AF-3	Approx. water table depth: water seeping in at 8'

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" reinforced concrete
-	Native	Brown + grey very moist clay/silty clay water seeping in from west side at 8"
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 0-2 for Cd, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.25.08	Elevation:
Date Completed: 6.25.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AG-1	Approx. water table depth: 4' (water was found.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	concrete w/ mesh wire.
-2-	←	VOID →
-4-		W ~ 3 FT WATER
-6-	CONCRETE SLAB	6" CONCRETE 62"-68"
		6" SUBBASE 68"-74"
	native.	Clay & Silt Brown very moist
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 7' for Di-N, As, Cu, Mn, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.25.08	Elevation:
Date Completed: 6.25.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AG-2	Approx. water table depth: No water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" concrete w/ wire mesh.
-	Fill	6"-18" clay and brick
-2-		18"-24" gray silty clay
-	Native	Reddish Brown clay to ROB at 30'.
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 2'-2.5' for CN, As, Cd, Mn, Zn

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.25.08	Elevation:
Date Completed: 6.25.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AG-3.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit		
-0-	cover	6" concrete (no mesh or bar)	
-	subbase.	6" crushed gravel / Black	
-2-	Reworked / native	clay w/ concrete little pieces of wood	fm clay to depth
-			
-4-			
-			
-6-			
-			
-8-			
-			
-10-			
-			
-12-			
-			
-14-			
-			
-16-			

General:

Analytical Samples: Sampled at 1.5' - 2' for Di-N, As, Cd, Mn, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·19·08	Elevation:
Date Completed: 6·19·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AJ-1	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" concrete w/ wire mesh.
-	natives/Regraded	very moist reworked clay saw some brick and one piece of wood
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1-2' for Cd, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·19·08	Elevation:
Date Completed: 6·19·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AJ-2.	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" concrete
-	Sub base.	2" gravel subbase.
-2-	Native/Regraded	moist-wet clayey silt reddish Brown. Pieces of wood.
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled 1'-2' for Cd, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AJ-3	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover.	4" concrete 2-3" sub base.
-	fill materials.	reworked Brown clayey fill trace sand some brick, wire
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled 1'-2' for. Cd, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.26.08	Elevation:
Date Completed: 6.26.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AS-4.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" concrete w/ mesh wire.
-	Fill	5" sand and slag.
-2-	Regraded	36" Brown clay w/ bricks regraded
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1.5'-2' for Cd, Pb.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AJ-5	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover.	Concrete
-2-	Fill material/ Recycled material	Clayey silt moist reddish Brown w/ bricks (cobble Bricks)
-4-	Native	Clayey silt moist reddish Brown
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: sampled 1'-2' & 4'-5' for Cd (4'-5') + Cd Zn (1'-2').

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6-20-08	Elevation:
Date Completed: 6-20-08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AJ-6.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover.	6" concrete w/ wire mesh.
-	fill	black angular sand / some patches of tan medium-fine sand
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for PCB, Cd.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6-20-08	Elevation:
Date Completed: 6-20-08	Pit max. depth: 2'
Geologist: Nicole Motto	Operator: John
Pit Number: AJ-7	Approx. water table depth: no water observed

DESCRIPTION		
DEPTH	Soil Unit	
-0-	Cover	8" concrete w/ wire mesh.
-	Fill	black angular sand, some brick and gravel
2		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for PCB's Cd.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·20·08	Elevation:
Date Completed: 6·20·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AJ-8	Approx. water table depth: did not observed water

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover.	Concrete w/ wire mesh.
-	Fill Material w/native.	whole brick / reddish brown clay silt.
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Samples at 1'-2' for PCB, Cd.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AK-1	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Concrete.	Concrete w/ rebar.
-	Foundry Sand.	black foundry sand w/ gravel mix chunks
-2-	Native	reddish Brown clayey silt. @ 2'
-		~23" down is pipe elbow.
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled @ 1'-2' for PAH, MN.

Comments:

PID-- Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AKA	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	Black foundry sand. w/ little clean sand.
-2-	native	clayey silt @ 25" east end but gets deeper as west end.
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: sampled at 1'-2' for PAH.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.20.08	Elevation:
Date Completed: 6.20.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AK-4	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover.	Concrete w/ rebar.
-	foundry sand.	black angular sand. trace gravel some.
-2-		whole brick.
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 1'-2' for PAH.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·20·08	Elevation:
Date Completed: 6·20·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AK-5.	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	concrete w/ rebar.
-		black angular sand trace gravel
-2-	foundry sand.	
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 0'-2' & 4'-6' PAH Di-N PCB Cd Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·20·08	Elevation:
Date Completed: 6·20·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AK-6	Approx. water table depth: water found at 4'

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	concrete w/ rebar.
-	base.	black angular sand trace of gravel.
-2-	fill material.	gravel coarse gray.
-		black angular sand w/ whole bricks
-4-		
-		
-6-		water at 4' w/ slight sheen & foam
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 0'-2' & 4'-6' for PAH Di-N PCB Cd En Cr.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.20.08	Elevation:
Date Completed: 6.20.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AL-1	Approx. water table depth: water found at ~8'

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover.	6" Concrete w/ wire mesh under concrete had a poly (plastic)
-	FILL	Black angular sand trace gravel
-2-		Clayey silt reddish brown.
-	Native - REGRADED	
-4-		8" metal pipe runs through test pit.
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Samples at 0'-2' & 2'-4' PAH Di-N PCB Cd Tn Cr.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.20.08	Elevation:
Date Completed: 6.20.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AL-2.	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	concrete w/ wire mesh.
-	FILL	black angular sand trace gravel
-2-		
-		black angular sand trace gravel some reddish Brown clayey silt
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0'-2' & 2'-4' for PAH, Di-N, PCB, Cd, Zn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08.	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AM-1	Approx. water table depth: water observed at ~4'

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	concrete ~6"
- -2-	FILL	36" gravel some sand
- -4- -	RE-GRADED Native	Clayey silt moist to wet. reddish brown.
-6- - -8- - -10- - -12- - -14- - -16-		

General:

Analytical Samples: Sampled at 1'-3' & 4'-6' PAH, Di-N, Cd, Cr, Mn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.19.08	Elevation:
Date Completed: 6.19.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AM-8	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	concrete
-	sub base.	gravelly sub base grey
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: sampled at 0'8 for PAH, Di-N, As, Cd, Cr, Mn, Zn,

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·19·08	Elevation:
Date Completed: 6·19·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: AM-3	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	4" concrete 4" sub.
-	Native	reddish brown clayey silt. moist.
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled for PAH, Di-N, As, Cd, Cr, Mn, Zn at 0-8'

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.24.08	Elevation:
Date Completed: 6.24.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BA-1	Approx. water table depth: no water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	concrete w/ wire mesh.
-	fill.	0.5'-2' medium sand brown some clay some gravel throughout patches of tan fine sand
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-8 for Mn.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.24.08	Elevation:
Date Completed: 6.24.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BA-2	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	Concrete w/ wire mesh.
-	Fill	medium sand Brown some clay, some gravel.
-2-		throughout patches of fine sand
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 0-2 for Mn.

Comments:

PID– Background Reading

LiRo Engineers, Inc.

BORING NO. BB-1

PROJECT	Spaulding Fibre ERP - Supplemental
CLIENT	ECIDA
BORING CONTRACTOR	Buffalo Drilling

GROUNDWATER					CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		splitspoon		
				DIA.		2"		
				WT.		jackhammer		
				FALL				

* POCKET PENETROMETER READING

SHEET:	
JOB NO:	
BORING LOCATION:	
GROUND ELEVATION:	
DATE STARTED:	7/31/2008
DATE FINISHED:	7/31/2008
DRILLER:	Jeff Hubert
GEOLOGIST:	Steve Frank
REVIEWED BY:	

DEPTH	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS: PID	REMARKS: moisture
								4" CONCRETE (MESH) 1-2" STONE			
		1	SS	N/A	25%	BLK		BLACK ANGULAR SAND (FOUNDRY)		0 PPM	MOIST
						BRN		CLAY AND SANDY GRAVEL			
5		2	SS		50%					0 PPM	
								END OF BORING			
10											
15											
20											
25											
30											
35											

COMMENTS: Split spoon driven using pnuematic jackhammer

PROJECT NO. : _____ BORING NO. : BB-1

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6-24-08	Elevation:
Date Completed: 6-24-08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BC-1	Approx. water table depth: water at 5'

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" concrete w/ wire mesh.
-		
-2-	fill	medium sand brown w/ whole bricks + large pieces of concrete
-		
-4-		concrete slab at 4.5'
-	native	Reddish brown clayey silt PID – 15 PPM
-6-		PID – 50 PPM
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 3', 6' + 7.5'-8' Benzene/DI-N/AS.

Comments:

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.24.08	Elevation:
Date Completed: 6.24.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BC-2	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" concrete w/ wire mesh Black sand trace gravel
-2-	Fill	Black sand moist
-4-	FILL	brown very moist to wet sandy, fine gravel (reworked) 4'-4.5'
-6-	native.	Reworked brown clayey silt, moist
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: sampled @ 3', 6' + 9' for DI-N, Benzene, + As.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6·24·08	Elevation:
Date Completed: 6·24·08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BC-3	Approx. water table depth:

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" Concrete w/ wire mesh.
-	Fill	Black angular sand w/ chunks of rock, stone, brick, slag.
-2-		
-	Fill	bricks and sand / gravel at top of clay. 3'-3.5'
-4-	Native	Reddish Brown clayey silt
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 3', 6', 9' for D-W, Screen, AS.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.05.08	Elevation:
Date Completed: 6.05.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BC-4	Approx. water table depth: water @ 4'

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" Concrete w/ rebar.
-	←	VOID →
-2-		
-	CONCRETE	6" concrete.
-4-	Fill	reddish brown clay w/ grained some brick (fill mat.) large roots in area. PID - 1PPM
-		
-6-		
-	native	Reddish Brown clay smooth w/ some org PID=1.0ppm.
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled 3.5' + 9' for Benzene, Di-N, As

Comments:

LiRo Engineers, Inc.

BORING NO. BC-5

PROJECT	Spaulding Fibre ERP - Supplemental
CLIENT	ECIDA
BORING CONTRACTOR	Buffalo Drilling
SHEET:	
JOB NO:	
BORING LOCATION:	
GROUND ELEVATION:	
DATE STARTED:	7/31/2008
DATE FINISHED:	7/31/2008
DRILLER:	Jeff Hubert
GEOLOGIST:	Steve Frank
REVIEWED BY:	

GROUNDWATER				CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	splitspoon		
				DIA.	2"		
				WT.	jackhammer		
				FALL			

* POCKET PENETROMETER READING

DEPTH	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS PID	REMARKS moisture
								6" CONCRETE / 3" w/ MESH			
		1	SS	N/A	85%	BRN & BLK		FILL - SAND & GRAVEL w/ SLAG FOUNDRY SAND		0 PPM	
		2	SS		85%			— — LITTLE FREE WATER		0 PPM	VERY MOIST
5		3	SS		75%	GRAY		REGRADED CLAY & SILT, TRACE GVL & SAND		0 PPM	V. MOIST
								END OF BORING			
10								(EXTRA LOCATION - NO LAB SAMPLE SENT)			
15											
20											
25											
30											
35											

COMMENTS: Split spoon driven using pnuematic jackhammer

PROJECT NO. : _____ **BORING NO. :** BC-5

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.24.08	Elevation:
Date Completed: 6.24.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BD-1	Approx. water table depth: water seeping in @ 3'

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" concrete w/ wire mesh.
-	Native - looks Regraded	Silty Clay Brown + Reddish Brown w/
-2-		Gray seam 1.5'-2'
-		Slgt. Water seepage @ 3'
-4-		Slgt. Odor PID-0
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled @ 3' & 6' for PAH

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.24.08	Elevation:
Date Completed: 6.24.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BD-2	Approx. water table depth: NO water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	Cover	6" Concrete w/ wire mesh.
-	Fill	slag fill some black anguar sand then grayish clay moist some odor in pit (can not ID odor) PID - OPPM
-2-		
-	Native - POSSIBLY REGRADED	layered gray & brown clay / clayey Silt
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sample taken at 3' & 6' for PAH

Comments:

PID– Background Reading

LiRo Engineers, Inc.

BORING NO. BD-3

PROJECT	Spaulding Fibre ERP - Supplemental
CLIENT	ECIDA
BORING CONTRACTOR	Buffalo Drilling
SHEET:	
JOB NO:	
BORING LOCATION:	
GROUND ELEVATION:	
DATE STARTED:	7/31/2008
DATE FINISHED:	7/31/2008
DRILLER:	Jeff Hubert
GEOLOGIST:	Steve Frank
REVIEWED BY:	

GROUNDWATER					CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		splitspoon		
				DIA.		2"		
				WT.		jackhammer		
				FALL				

* POCKET PENETROMETER READING

DEPTH	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	REMARKS PID	REMARKS moisture
								6" CONCRETE (2" w/ MESH)			
		1	SS	W/H	65%	BRN BLK		FILL- 7" BROWN CLAY		0PPM	MOIST
								9" BLACK GVL/SAND/SLAG			
		2	SS		95%					0PPM	
5								REGRADED GRAY & BROWN			
		3	SS		100%			SILT & CLAY SOME WOOD/BRICK			
								END OF BORING			
10											
15											
20											
25											
30											
35											

COMMENTS: Split spoon driven using pnuematic jackhammer

PROJECT NO. : _____ **BORING NO. :** BD-3

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6/18/08	Elevation:
Date Completed: 6/18/08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BF-1	Approx. water table depth: no water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	Concrete.	Concrete no rebar or wire mesh.
-	foundry sand	17.5" black angular sand trace medium gravel
-2-		
-		
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for Ba, Cr.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6/18/08	Elevation:
Date Completed: 6/18/08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BF-2	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Concrete	Concrete w/ wire mesh.
- -2- -	foundry sand.	31.5" black angular sand trace gravel
-4- - -6- - -8- - -10- - -12- - -14- - -16-		

General:

Analytical Samples: Sampled at 1'-2' for Ba, Cr.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6/18/08	Elevation:
Date Completed: 6/18/08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BF-3	Approx. water table depth: no water observed.

DESCRIPTION

DEPTH	Soil Unit	
-0-	Concrete.	8" concrete w/ wire mesh.
-2-	foundry sand.	46" black angular sand trace gravel
-4-	Native	18" dry compact clay w/ some silt
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for Ba, Cr.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.18.08	Elevation:
Date Completed: 6.18.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BG-1	Approx. water table depth: water found at ~40"

DESCRIPTION

DEPTH	Soil Unit	
-0-	concrete.	concrete w/ wire mesh.
-2-	foundry sand.	36.5" black angular sand w/ some gravel
-	native.	reddish brown silty clay. at 43" WATER ATTD"
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: sample at 0'-2' for Ba, Cr.

Comments:

PID– Background Reading

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.18.08	Elevation:
Date Completed: 6.18.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BG-2.	Approx. water table depth: water found at 42"

DESCRIPTION

DEPTH	Soil Unit	
-0-	Concrete	concrete w/ wire mesh.
-	foundry sand.	42.5" black angular sand trace gravel
-2-		
-		WATER SEEPING IN @ 42"
-4-		SILTY CLAY AT 49"
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: Sampled at 1'-2' for Ba, Cr.

Comments:

PID– Background Reading

LiRo Engineers, Inc.

BORING NO. BH-1

PROJECT	Spaulding Fibre ERP - Supplemental	SHEET:	
CLIENT	ECIDA	JOB NO:	
BORING CONTRACTOR	Buffalo Drilling	BORING LOCATION:	
GROUNDWATER		GROUND ELEVATION:	
DATE / TIME / LEVEL / TYPE		DATE STARTED:	7/31/2008
		DATE FINISHED:	7/31/2008
		DRILLER:	Jeff Hubert
		GEOLOGIST:	Steve Frank
		REVIEWED BY:	

	CAS.	SAMPLER	CORE	TUBE
TYPE		splitspoon		
DIA.		2"		
WT.		jackhammer		
FALL				

* POCKET PENETROMETER READING

DEPTH	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS: PID / moisture
0				N/A				INSIDE PIT - 7.5' BELOW MAIN FLOOR		
5								EARTHEN BOTTOM		
10		1	SS		95%	DARK GRAY		CLAY (REWORKED), SOME SILT, TRACE GRAVEL		0 PPM / MOIST
15								END OF BORING		
20										
25										
30										
35										

COMMENTS: Split spoon driven using pnuematic jackhammer
SAMPLED 0-2 / 7.5-9.5 Relative to Main Floors for Cd, Zn

PROJECT NO. : _____ **BORING NO. :** BH-1

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.20.08	Elevation:
Date Completed: 6.20.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: BI-1	Approx. water table depth: water at ~5'

DESCRIPTION

DEPTH	Soil Unit	
-0-	cover	concrete w/ wiremesh.
-2-	fill	black angular sand / fine-medium sandpaper.
-4-		
-6-		
-8-		
-10-		
-12-		
-14-		
-16-		

General:

Analytical Samples: Sampled at 3'-5' for Cd, Zn.

Comments:

PID– Background Reading

LiRo Engineers, Inc.

BORING NO. BK-1

PROJECT	Spaulding Fibre ERP - Supplemental	SHEET:	
CLIENT	ECIDA	JOB NO:	
BORING CONTRACTOR	Buffalo Drilling	BORING LOCATION:	LAB BASEMENT
GROUNDWATER		GROUND ELEVATION:	
DATE STARTED:	7/31/2008	DATE FINISHED:	7/31/2008
DRILLER:	Jeff Hubert	GEOLOGIST:	Steve Frank
REVIEWED BY:			

GROUNDWATER DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		splitspoon		
				DIA.		2"		
				WT.		jackhammer		
				FALL				
				* POCKET PENETROMETER READING				

DEPTH	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	REMARKS PID	REMARKS moisture
								4" CONCRETE			
		1	SS	N/A	75%	BRN		SILT & CLAY, SOME GRAVEL		0PPM	MOIST
								END OF BORING			
5											
10											
15											
20											
25											
30											
35											

COMMENTS: Split spoon driven using pnuematic jackhammer
SAMPLED 0'-2' FOR DI-N

PROJECT NO. : _____ **BORING NO. :** BK-1

TEST PIT LOGS

Project: Spaulding Fibre	Project #: 07-25-306A
Client: ECIDA	Contractor: DEMCO
Date Started: 6.18.08	Elevation:
Date Completed: 6.18.08	Pit max. depth:
Geologist: Nicole Motto	Operator: John
Pit Number: EX	Approx. water table depth: no water observed

DESCRIPTION

DEPTH	Soil Unit	
-0-	Concrete.	Concrete w/ rebar.
-	Foundry sand.	Black foundry sand w/ few stones.
-2-		
-	native	at 33" reddish Brown silty clay.
-4-		
-		
-6-		
-		
-8-		
-		
-10-		
-		
-12-		
-		
-14-		
-		
-16-		

General:

Analytical Samples: no samples taken.

Comments:

PID– Background Reading

ATTACHMENT 2

Data Usability Summary Report

This Data Usability Summary Report (DUSR) has been prepared by JMD Environmental, Inc. of Grand Island , New York following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation Draft DER-10 Technical Guidance for Site Investigation and Remediaton, dated December 2002, Appendix 2B. The report presents the findings of the data quality assessment performed on the analyses of environmental samples collected for the Site Investigation and Remedial Alternatives Report (SI/RAR) for the Spaulding Fibre Site (Site) in Tonawanda, New York. Samples for the sampling program were collected on June 24, 2008. The chemical data for samples collected were validated to identify potential data quality issues which could affect the use of the data for decision making purposes.

SAMPLING AND ANALYSIS PROGRAM

A total of 6 evaluated soil samples as well as associated quality control samples were collected for chemical analysis during this sampling event. Chemtech Laboratories, Inc. of Mountainside, NJ (New York State Lab ID Code 11376) performed the chemical analyses for Semivolatile Organic Compounds (SVOCs) following United States Environmental Protection Agency (USEPA) method guidelines: EPA SW 846 8270, Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry, January 1998.

The samples that were part of this evaluation are presented in the table below:

Sample ID	Sample Date / Time	Received Date
A1-1-3	6/24/2008 8:00	6/25/2008 11:30
A1-0-1	6/24/2008 8:00	6/25/2008 11:30
A2-0-1	6/24/2008 8:00	6/25/2008 11:30
A2-1-3	6/24/2008 8:00	6/25/2008 11:30
A3-0-1	6/24/2008 8:00	6/25/2008 11:30
A3-1-3	6/24/2008 8:00	6/25/2008 11:30

NYSDEC ASP data deliverables packages and compliance with ASP QA/QC criteria were also required as part of this investigational data.

A complete level IV data validation was performed on all six OU7 Supplemental SI soil samples following the guidelines of the New York State Department of Environmental Conservation Division of Solid & Hazardous Materials Technical Administrative Guidance Memorandum (TAGM) SW-96-09 (effective date: 5/3/2001)The validation included: a review of holding times and completeness of all required deliverables; a review of quality control (QC) results (blanks, instrument tunings, calibration standards, duplicate analyses, and laboratory control sample recoveries) to determine if the data are within the protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

Data for organics SVOCs were validated following USEPA Region II Standard Operating Procedures SOP No. HW-22, Revision 3, Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (October 2006).

Additionally, NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation1 was used in the validation, where applicable to the respective USEPA SW846 methods as described above. In general, chemical results for the samples collected at the site were qualified on the basis of outlying precision or accuracy parameters, or on the basis of professional judgment when required. The following definitions provide brief explanations of the qualifiers which may have been assigned to data during the data validation process.

J	Analyte is present; however, the reported value may not be accurate or precise.
UJ	The analyte was not detected above the method detection limit. The associated detection limit is considered estimated.
U	The analyte was analyzed for, but was not detected above the method detection limit.

SUMMARY

The following is a summary of the findings:

- For all the samples the holding times were met
- Initial 5 point calibrations were performed and were acceptable
- Continuing calibration were performed at the required frequency and produced acceptable result except for, the CCC for 7/4/08 at 5:04 AM for Benzo(g,h,i)perylene yielded a %D of 20.6%.
- GC sample retention times were within QC guidelines
- Blank analysis showed no laboratory Contamination
- Blank spike analysis yield acceptable results, except for 7/3/08 at 4:11 PM the sample yielded a low recovery of Naphthalene of 54%, where the QC limit was 57%.
- Surrogate recoveries for all samples were within QC guidelines
- Internal Standard area percents were within QC guidelines
- Matrix Spike and Matrix Spike Duplicates had numerous high recoveries for Pyrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene and Benzo(a)pyrene. Low recoveries were noted for Indeno(1,2,3-cd)pyrene.

Based on the results of the data validation, the analytical data for samples collected as part of the Spaulding Fiber Site Investigation were determined to be acceptable (including estimated [J/UJ] data) for their intended use. In general, data collected met acceptable levels of accuracy and precision, based on Laboratory Control Samples, Matrix Spike and Matrix Spike Duplicate samples, field duplicate samples, laboratory surrogate recoveries, and calibration data. In addition, the data completeness goal (i.e. the ratio of the amount of valid data obtained to the amount expected, including estimated data) was >97%, which exceeds the laboratory goal of 90%.

The data evaluation associated with this sampling event was performed by Paul Chopra. Mr. Chopra has a Bachelors of Science degree in Biology from The Citadel, The Military College of South Carolina, Charleston, South Carolina. Mr. Chopra has sixteen years experience as an environmental laboratory professional, including serving as a laboratory director for six years, laboratory and quality control manager for seven years and laboratory analyst for 3 years.

Data Evaluation
Spaulding Fiber, Tonawanda, NY

			Original Result		New Result		
Sample ID	Parameter	Analysis Date	Qualifier	Result	Qualifier	New Result	Reason for Change
A1-1-3	Naphthalene	7/3/2008	U	9.8	UJ	No Change	LCS Recovery Low
A1-1-3	Acenaphthylene	7/3/2008	U	6.0	U	No Change	
A1-1-3	Acenaphthene	7/3/2008	U	8.8	U	No Change	
A1-1-3	Fluorene	7/3/2008	U	11	U	No Change	
A1-1-3	Phenanthrene	7/3/2008	U	13	U	No Change	
A1-1-3	Anthracene	7/3/2008	U	14	U	No Change	
A1-1-3	Fluoranthene	7/3/2008	U	9.9	U	No Change	
A1-1-3	Pyrene	7/3/2008	U	8.9	UJ	No Change	MS & MSD Recovery High
A1-1-3	Benzo(a)anthracene	7/3/2008	U	9.8	UJ	No Change	MS & MSD Recovery High
A1-1-3	Chrysene	7/3/2008	U	7.6	U	No Change	
A1-1-3	Benzo(b)fluoranthene	7/3/2008	U	29	UJ	No Change	MS & MSD Recovery High
A1-1-3	Benzo(k)fluoranthene	7/3/2008	U	19	UJ	No Change	MS Recovery High
A1-1-3	Benzo(a)pyrene	7/3/2008	U	12	UJ	No Change	MS Recovery High
A1-1-3	Indeno(1,2,3-cd)pyrene	7/3/2008	U	10	UJ	No Change	MS & MSD Recovery Low
A1-1-3	Dibenz(a,h)anthracene	7/3/2008	U	30	U	No Change	
A1-1-3	Benzo(g,h,i)perylene	7/3/2008	U	30	U	No Change	
A1-0-1	Naphthalene	7/3/2008	U	10	UJ	No Change	LCS Recovery Low
A1-0-1	Acenaphthylene	7/3/2008	U	6.1	U	No Change	
A1-0-1	Acenaphthene	7/3/2008	U	9.0	U	No Change	
A1-0-1	Fluorene	7/3/2008	U	11	U	No Change	
A1-0-1	Phenanthrene	7/3/2008	U	13	U	No Change	
A1-0-1	Anthracene	7/3/2008	U	14	U	No Change	
A1-0-1	Fluoranthene	7/3/2008	J	53	J	No Change	
A1-0-1	Pyrene	7/3/2008	J	49	J	No Change	MS & MSD Recovery High
A1-0-1	Benzo(a)anthracene	7/3/2008	U	10	UJ	No Change	MS & MSD Recovery High
A1-0-1	Chrysene	7/3/2008	U	7.8	U	No Change	
A1-0-1	Benzo(b)fluoranthene	7/3/2008	J	44	J	No Change	MS & MSD Recovery High
A1-0-1	Benzo(k)fluoranthene	7/3/2008	U	19	UJ	No Change	MS Recovery High
A1-0-1	Benzo(a)pyrene	7/3/2008	U	12	UJ	No Change	MS Recovery High
A1-0-1	Indeno(1,2,3-cd)pyrene	7/3/2008	U	11	UJ	No Change	MS & MSD Recovery Low

			Original Result		New Result		
Sample ID	Parameter	Analysis Date	Qualifier	Result	Qualifier	New Result	Reason for Change
A1-0-1	Dibenz(a,h)anthracene	7/3/2008	U	31	U	No Change	
A1-0-1	Benzo(g,h,i)perylene	7/3/2008	U	30	U	No Change	
A2-0-1	Naphthalene	7/3/2008	U	9.8	UJ	No Change	LCS Recovery Low
A2-0-1	Acenaphthylene	7/3/2008	U	6.0	U	No Change	
A2-0-1	Acenaphthene	7/3/2008	U	8.8	U	No Change	
A2-0-1	Fluorene	7/3/2008	U	11	U	No Change	
A2-0-1	Phenanthrene	7/3/2008	U	13	U	No Change	
A2-0-1	Anthracene	7/3/2008	U	14	U	No Change	
A2-0-1	Fluoranthene	7/3/2008	U	9.9	U	No Change	
A2-0-1	Pyrene	7/3/2008	U	8.9	UJ	No Change	MS & MSD Recovery High
A2-0-1	Benzo(a)anthracene	7/3/2008	U	9.8	UJ	No Change	MS & MSD Recovery High
A2-0-1	Chrysene	7/3/2008	U	7.6	U	No Change	
A2-0-1	Benzo(b)fluoranthene	7/3/2008	U	29	UJ	No Change	MS & MSD Recovery High
A2-0-1	Benzo(k)fluoranthene	7/3/2008	U	19	UJ	No Change	MS Recovery High
A2-0-1	Benzo(a)pyrene	7/3/2008	U	12	UJ	No Change	MS Recovery High
A2-0-1	Indeno(1,2,3-cd)pyrene	7/3/2008	U	10	UJ	No Change	MS & MSD Recovery Low
A2-0-1	Dibenz(a,h)anthracene	7/3/2008	U	30	U	No Change	
A2-0-1	Benzo(g,h,i)perylene	7/3/2008	U	30	U	No Change	
A2-1-3	Naphthalene	7/4/2008	U	10	UJ	No Change	LCS Recovery Low
A2-1-3	Acenaphthylene	7/4/2008	U	6.1	U	No Change	
A2-1-3	Acenaphthene	7/4/2008	U	9.0	U	No Change	
A2-1-3	Fluorene	7/4/2008	U	11	U	No Change	
A2-1-3	Phenanthrene	7/4/2008	U	13	U	No Change	
A2-1-3	Anthracene	7/4/2008	U	14	U	No Change	
A2-1-3	Fluoranthene	7/4/2008	U	10	U	No Change	
A2-1-3	Pyrene	7/4/2008	U	9.1	UJ	No Change	MS & MSD Recovery High
A2-1-3	Benzo(a)anthracene	7/4/2008	U	10	UJ	No Change	MS & MSD Recovery High
A2-1-3	Chrysene	7/4/2008	U	7.8	U	No Change	
A2-1-3	Benzo(b)fluoranthene	7/4/2008	U	30	UJ	No Change	MS & MSD Recovery High
A2-1-3	Benzo(k)fluoranthene	7/4/2008	U	19	UJ	No Change	MS Recovery High
A2-1-3	Benzo(a)pyrene	7/4/2008	U	12	UJ	No Change	MS Recovery High
A2-1-3	Indeno(1,2,3-cd)pyrene	7/4/2008	U	11	UJ	No Change	MS & MSD Recovery Low
A2-1-3	Dibenz(a,h)anthracene	7/4/2008	U	31	U	No Change	
A2-1-3	Benzo(g,h,i)perylene	7/4/2008	U	30	UJ	No Change	Cont Calib Failed

			Original Result		New Result		
Sample ID	Parameter	Analysis Date	Qualifier	Result	Qualifier	New Result	Reason for Change
A3-0-1	Naphthalene	7/9/2008	U	9.8	UJ	No Change	LCS Recovery Low
A3-0-1	Acenaphthylene	7/9/2008	U	6.0	U	No Change	
A3-0-1	Acenaphthene	7/9/2008	U	8.8	U	No Change	
A3-0-1	Fluorene	7/9/2008	U	11	U	No Change	
A3-0-1	Phenanthrene	7/9/2008	U	13	U	No Change	
A3-0-1	Anthracene	7/9/2008	U	14	U	No Change	
A3-0-1	Fluoranthene	7/9/2008	J	47	J	No Change	
A3-0-1	Pyrene	7/9/2008	J	44	J	No Change	MS & MSD Recovery High
A3-0-1	Benzo(a)anthracene	7/9/2008	U	9.8	UJ	No Change	MS & MSD Recovery High
A3-0-1	Chrysene	7/9/2008	U	7.6	U	No Change	
A3-0-1	Benzo(b)fluoranthene	7/9/2008	U	29	UJ	No Change	MS & MSD Recovery High
A3-0-1	Benzo(k)fluoranthene	7/9/2008	U	19	UJ	No Change	MS Recovery High
A3-0-1	Benzo(a)pyrene	7/9/2008	U	12	UJ	No Change	MS Recovery High
A3-0-1	Indeno(1,2,3-cd)pyrene	7/9/2008	U	10	UJ	No Change	MS & MSD Recovery Low
A3-0-1	Dibenz(a,h)anthracene	7/9/2008	U	30	U	No Change	
A3-0-1	Benzo(g,h,i)perylene	7/9/2008	U	30	U	No Change	
A3-1-3	Naphthalene	7/4/2008	U	9.4	UJ	No Change	LCS Recovery Low
A3-1-3	Acenaphthylene	7/4/2008	U	5.7	U	No Change	
A3-1-3	Acenaphthene	7/4/2008	U	8.4	U	No Change	
A3-1-3	Fluorene	7/4/2008	U	10	U	No Change	
A3-1-3	Phenanthrene	7/4/2008	U	12	U	No Change	
A3-1-3	Anthracene	7/4/2008	U	13	U	No Change	
A3-1-3	Fluoranthene	7/4/2008	J	9.4	J	No Change	
A3-1-3	Pyrene	7/4/2008	J	8.5	J	No Change	MS & MSD Recovery High
A3-1-3	Benzo(a)anthracene	7/4/2008	U	9.3	UJ	No Change	MS & MSD Recovery High
A3-1-3	Chrysene	7/4/2008	U	7.2	U	No Change	
A3-1-3	Benzo(b)fluoranthene	7/4/2008	U	28	UJ	No Change	MS & MSD Recovery High
A3-1-3	Benzo(k)fluoranthene	7/4/2008	U	18	UJ	No Change	MS Recovery High
A3-1-3	Benzo(a)pyrene	7/4/2008	U	11	UJ	No Change	MS Recovery High
A3-1-3	Indeno(1,2,3-cd)pyrene	7/4/2008	U	9.8	UJ	No Change	MS & MSD Recovery Low
A3-1-3	Dibenz(a,h)anthracene	7/4/2008	U	28	U	No Change	
A3-1-3	Benzo(g,h,i)perylene	7/4/2008	U	28	UJ	No Change	Cont Calib Failed