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Holzmatcher, McLendon & Murrell, P.C. | H2M Associates, Inc.
H2M Labs, Inc. | H2M Architects & Engineers, Inc.

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January 27, 2009

Ms. Katy Murphy
New York State Department of Environmental Conservation
Division of Solid & Hazardous Material, Region One
50 Circle Road
Stony Brook, New York 11790-0231



**Re: Environmental Investigation Report
DFCI Solutions, Inc. (former Dzus Fasteners Property)
425 Union Boulevard, West Islip, NY
EPA ID #: NY002043701**

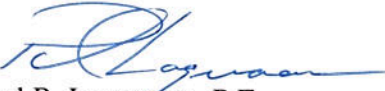
Dear Ms. Murphy:

On behalf of DFCI Solutions, Inc., Holzmatcher, McLendon & Murrell, P.C. (H2M) submits herewith for your review a copy of our Environmental Investigation Report for environmental investigative activity conducted at the DFCI Solutions facility in West Islip, New York.

If you should have any questions regarding this report, or require additional information, please contact me at (631) 756-8000, extension 1483.

Very truly yours,

HOLZMACHER, McLENDON & MURRELL, P.C.


Paul R. Lageraen, P.E.
Sr. Project Manager

cc: Olivia Marie, DFCI Solutions
Kelly Daniele, Esq.



CELEBRATING 75 YEARS





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January 5, 2009

Ms. Olivia Marie, Vice President
DFCI Solutions, Inc.
425 Union Boulevard
West Islip, New York 11795

Re: Environmental Investigation
DFCI Solutions, Inc., 425 Union Boulevard, West Islip, NY

Dear Ms. Marie:

In accordance with our revised November 3, 2008 proposal, Holzmacher, McLendon & Murrell, P.C. (H2M) has completed an environmental investigation at the DFCI Solutions, Inc. property located at 425 Union Boulevard in West Islip, New York. The purpose of this investigation was to further investigate environmental due diligence findings identified at the subject property by FPM Group in support of a possible property transaction. Additionally, the environmental investigation addressed comments received from the New York State Department of Environmental Conservation (NYSDEC) via a letter from Ms. Katy Murphy (NYSDEC Region I, Division of Solid and Hazardous Materials) to H2M dated April 25, 2008. Minor revisions to the environmental investigation scope were made in coordination with DFCI Solutions during the actual field work portion of this project's investigative activity based on field observations made by H2M and the NYSDEC. Provided herein are the results of our findings. A partial site plan is provided as Figure 1.

In summary, the scope of work of this investigation addressed the following issues of potential environmental concern:

- Vertical delineation of contamination at formerly-abandoned sanitary leaching pools CP-1 and CP-2;
- Investigation of the former sanitary leaching pool beneath the Plastic Manufacturing Building;
- Soil investigation in the recharge basin, former metal shed, exterior former kerosene tank containment area, and demolished shed area;
- Investigation of soil vapor contamination beneath the indoor raw materials storage area;
- Delineation of piping from the west basement sump;
- Investigation of sump in the heat treatment building;
- Investigation of the main building's front stormwater roof drain leaders that discharge into below grade piping;

In September 2008, H2M performed a groundwater investigation downgradient from former sanitary leaching pool CP-2 to investigate potential chlorinated organic contamination near the property line. No contamination was detected. The groundwater investigation results were presented in a summary letter report to DFCI entitled CP-2 Groundwater Quality Investigation Report, dated October 1, 2008.



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Site-Specific Cleanup Criteria

As a consequence to verbal and written communications with the NYSDEC, Region I regarding the site-specific cleanup criteria that are applicable to remedial actions at the site, whether part of environmental due diligence or RCRA Closure activities, the NYSDEC has directed the use of the more restrictive of either the 6 NYCRR Part 375 Protection of Groundwater guidelines or 6 NYCRR Part 375 Commercial Restricted-Use cleanup guidelines. A copy of correspondence from the NYSDEC regarding the cleanup objectives, dated November 5, 2008, is included in Appendix A. Within this report, the terminology cleanup guidelines or cleanup objectives are used interchangeably.

Investigation of Former Sanitary Leaching Structures CP-1 and CP-2

Sanitary leaching pools CP-1 and CP-2 were sampled by FPM Group in October 2007 as part of an environmental due diligence effort. These sanitary leaching pools are currently accessible at grade but had been previously backfilled to within a few feet of grade-level. It is our understanding that these pools were abandoned in approximately August of 1985 at which time the site connected with municipal sewer. In comparison with Suffolk County Department of Health Services (SCDHS) Action Levels (SOP No. 9-95 Pumpout and Soil Cleanup Criteria), FPM Group identified cadmium, copper and silver contamination in CP-1 at a depth of 7-8 feet below grade, and chlorinated organic contamination (i.e., 1,4-dichlorobenzene, 1,2-dichloroethene, tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride) in CP-2 at a depth of 8-8.5 feet below grade.

On November 24, 2008, H2M mobilized to the subject site with a direct-push drilling rig (i.e. Geoprobe®) to collect soil samples from former sanitary leaching structures CP-1 and CP-2. Soil borings were advanced continuously through each structure to a completion depth of 15 feet below grade. In both former leaching structures groundwater was encountered at approximately eight feet below grade. The soil borings were advanced in 5-foot increments as 2-inch diameter macro-cores. All soil cores were field screened for evidence of contamination both visually and with a portable photoionization detector (PID). A composite soil sample representative of the fill was retained from both structures at depths of 0-7 feet below grade. Samples were also collected from both structures at 12 feet below grade.

The field screening at CP-1 did not identify any contamination. At CP-2, a PID response of 42.9 parts per million (ppm) was detected at a depth of approximately 11 feet below grade. A black discolored sand-clayey mixture with an organic chemical odor was noted at a depth of approximately 11 to 12 feet below grade. Below this depth, the soil appeared to be native sands with a tan color. A portion of the black discolored soil was included in the 12' sample from CP-2.

Samples were analyzed for TAL metals and TCL Volatile Organic Compounds (VOCs) by H2M Labs, Inc., a NYSDOH accredited laboratory. Sampling results are summarized in Table 1 in comparison with the 6 NYCRR Part 375 cleanup objectives. The use of these cleanup objectives for data evaluation purposes rather than the SCDHS action levels or cleanup criteria for the former leaching structures was requested by the NYSDEC considering all leaching pool sampling conducted as part of this effort was witnessed by the NYSDEC. Copies of the laboratory data reports are included in Appendix C. As shown in Table 1, no metal contaminants were detected above the cleanup criteria in either CP-1 or CP-2. No VOCs were detected at CP-1 or in the fill material within CP-2. However, VOCs including 1,4-

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dichlorobenzene and tetrachloroethene, were detected in the 12-foot CP-2 sample at concentrations exceeding the cleanup criteria.

Based on the CP-1 and CP-2 investigation findings, remediation of CP-2 is warranted from 7 feet below grade to a minimum depth of 12 feet. Remediation of CP-1 from 7 to 12 feet is also warranted based on the previous findings by FPM Group. The fill material within CP-1 and CP-2 did not have any contaminant impacts above the cleanup criteria, and therefore can be segregated for onsite reuse. As previously noted, field screening of the soils at CP-2 identified a black discolored sand-clayey mixture at approximately 11 to 12 feet below grade. This is suspected to have served as a confining layer that has limited the vertical migration of contamination within the leaching structure. Soils beneath this interval were native in appearance with no notable odor or contamination based on PID response. However, a laboratory sample of the soils below 12 feet was not analyzed. *should take an independent*

*CP-1
1 pipe to
area w/ poured
conc + 1 to
bldg*
On the date of the CP-1 and CP-2 investigation, interconnecting or overflow piping identified within these structures as well as CP-3 was delineated using a closed-circuit drain camera. CP-1 and CP-2 were each identified with one overflow pipe. In both cases, the piping was blocked and/or filled with soil. Based on the direction of the overflow piping and the distances from the primary structures to the piping blockages, the approximate locations of secondary leaching pools were identified through manual probing of the surrounding soil. The secondary leaching pools, identified as CP-1B and CP-2B, for former leaching pools CP-1 and CP-2, respectively, are suspected to have been previously backfilled. A rough concrete pour was observed beneath a shallow top soil layer in both locations. The approximate locations of CP-1B and CP-2B are shown on Figure 1.

As directed by the NYSDEC on the date of the investigation, *at edge of concrete cap* soil borings were advanced to a depth of 10 feet below grade immediately adjacent to the CP-1B and CP-2B locations. All soils were field screened. No contamination was identified based on visual screening or PID responses. Soil samples were retained near the groundwater interface at a depth of 7.5-8 feet below grade. These samples were analyzed for TAL metals and VOCs. Sample results are summarized in Table 1. Soil boring logs are provided in Appendix B. Laboratory data reports are included in Appendix C. As shown in Table 1, no metal or VOC contaminants were identified above the cleanup criteria.

Through delineation efforts, two secondary leaching structures associated with former leaching pool CP-3 were also identified. These structures, identified as CP-3B and CP-3C and shown on Figure 1, were found to have been backfilled but were accessible through concrete covers situated beneath a few inches of top soil and grass. CP-3B and CP-3C were not sampled by H2M as previous sampling by FPM Group in October 2007 did not identify any metal or VOC contamination in former leaching pool CP-3.

Investigation of Former Sanitary Leaching Structure in Plastics Manufacturing Building

Based on a review of past site records, a sanitary leaching pool previously serviced a rest room in the building currently identified as the Plastics Manufacturing Building. To identify the location of the former sanitary leaching pool, piping from a sanitary cleanout was traced on November 24, 2008 utilizing a video drain camera. The sanitary cleanout was located to the west of an interior concrete block wall in the room currently used for plastics injection molding operations. A Y-pipe was identified a few feet to the west of the sanitary cleanout. To access the pipe fitting and permit proper piping delineation, the

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concrete floor was partially removed and excavated. The floor was restored following the investigative activities. The delineation efforts ultimately identified the former sanitary leaching structure to be located to the northwest of the cleanout area outside the building but adjacent to the west building wall. The Y-fitting appeared to interconnect the rest room area within the Plastic Manufacturing Building, the cleanout and the former leaching pool. The area on the west side of the building had moderately to heavy vegetation. Vehicular access to this area would require removal of multiple trees or access through the adjoining property, which is currently a fenced parking area.

The Plastics Manufacturing Building former leaching pool was accessed through a solid concrete cover and sampled utilizing a decontaminated hand auger. The leaching pool sample, identified as Plastics CP, was analyzed for TAL metals, TCL VOCs and TCL semi-volatile organic compounds (SVOCs). The sampling results are summarized in Table 1 in comparison with the 6 NYCRR Part 375 cleanup criteria, as requested by the NYSDEC. The laboratory report is included in Appendix C. The approximate location of the former leaching pool is shown on Figure 1. As shown in Table 1, no VOC or SVOC contaminants were detected above the cleanup criteria. Regarding metals, mercury, cadmium and copper were detected at concentrations above their respective cleanup criteria. Based on the sampling results, remediation of the Plastics Manufacturing Building former leaching pool is warranted. Due to access limitations, removal of trees and vegetation overgrowth will be required prior to remediation. Alternatively, vegetation removal may be minimized by accessing the leaching pool area from the neighboring property.

Soil Investigation at Recharge Basin, Metal Shed, Former Kerosene Tank Containment Area and Demolished Storage Shed

A soil investigation was conducted by H2M in the areas of the recharge basin, former metal shed, former kerosene tank containment area and demolished shed to delineate soil contaminant impacts identified during FPM's previous environmental due diligence investigation. On November 25 and 26, 2008, soil samples were manually collected in the referenced areas utilizing a decontaminated hand auger or small hand-held garden shovel. The sampling locations were selected by the Ms. Murphy of the NYSDEC, except for the recharge basin samples. The recharge basin sampling locations were later deemed acceptable after Ms. Murphy arrived at the site.

Recharge Basin

At the recharge basin, samples were collected in 4 locations, identified as Recharge N, Recharge S, Recharge E and Recharge W. At each location, samples were retained from 0-6 inches below grade and 18-24 inches below grade. All samples were submitted to H2M Labs and analyzed for TAL metals. The laboratory results are summarized in Table 2. The laboratory reports are included in Appendix C. Cadmium was detected above the cleanup guideline at Recharge N (0-6"), Recharge S (0-6"), Recharge S (18-24") and Recharge W (0-6"). Chromium was detected above the cleanup guideline in two samples: Recharge S (0-6") and Recharge S (18-24"). No metal exceedences were detected in the two samples from the eastern side of the recharge basin.

Based on the sampling results, soil remediation is warranted in the recharge basin. Strictly based on the results, the extent of remediation would be to 18 inches in the northern and western areas and to a minimum of 24 inches in the southern portion.

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Former Metal Shed

At the location of the former metal shed, a total of 6 soil samples were collected, submitted to the analytical laboratory and analyzed for TAL metals. The sampling locations were skewed to the southern part of the former metal shed area where there was no asphaltic ground cover. The samples, identified as Metal Shed 001 through 003, were collected at depths of 0-6 inches and 18-24 inches. The laboratory results are summarized in Table 2. The laboratory reports are included in Appendix C.

As shown in Table 2, metals were detected above the cleanup guidelines at each of the three locations for the samples collected at 0-6 inch depth interval. No contaminant exceedences were detected in the 18-24 inch depth interval samples. Based on these results, remediation of the surface soils in the area of the former metal shed to a depth of 18 inches is warranted. ✓

Former Kerosene Tank Containment Area

The former kerosene tank containment area is situated to the north of the main facility building near the heat treatment building. This area is shown on Figure 1. Metal contamination was detected in one soil sample collected from a depth of 0.5-2 feet by FPM. This area was identified by FPM as the Exterior Hazardous Waste Storage Area. As part of this investigation, four additional soil samples were collected from locations on the west side and east side of the containment area. The samples, collected from two locations identified as Kerosene 001 and Kerosene 002, were retained at depth intervals of 0-6 inches and 18-24 inches. All samples were submitted to the analytical laboratory and analyzed for TAL metals. The base of the concrete containment area was drilled to permit the subsurface soil sampling. The concrete was patched upon completion of the field activity.

The kerosene containment area sampling results are summarized in Table 2 and the laboratory reports are included in Appendix C. Metal exceedences that primarily included chromium and/or cadmium were identified in all samples except Kerosene 002 (18-24"). The sampling results indicate that soil remediation is warranted to a minimum of 24 inches.

Demolished Shed Area

In the area of the former demolished shed a total of six soil samples were collected from three locations at depths of 0-6 inches and 18-24 inches. The samples were identified as Demo'd Shed 001 through 003. All samples were submitted to the analytical laboratory and analyzed for TAL metals and TCL VOCs. The analytical sampling results are summarized in Table 2. Laboratory reports are included in Appendix C. As shown in Table 2, no VOCs were detected in any sample. Regarding metals, cadmium was detected at concentrations of 21.3 mg/kg at Demo'd Shed 001 (0-6"), 10.2 mg/kg at Demo'd Shed 002 (0-6") and 12.5 mg/kg at Demo'd Shed 003 (0-6") compared with the Protection of Groundwater Standard of 7.5 mg/kg. No metal exceedences were detected in the soil samples collected from 18-24 inches. Based on these results, limited soil remediation is warranted in the area of the demolished shed to a depth of 18 inches.

Tumbler Area

On November 26, 2008, Ms. Murphy from the NYSDEC requested surface soil sampling in an area adjacent to but to the west of the heat treatment building where abrasive material from parts finishers (i.e., tumblers) was observed on the ground. One soil sample, identified as Tumbler, was collected, submitted

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to the analytical laboratory and analyzed for TAL metals. The analytical results, which are summarized in Table 2, identified cadmium and chromium at concentrations above their respective cleanup criteria. Cadmium was detected at a concentration of 282 mg/kg compared with the Protection of Groundwater Standard of 7.5 mg/kg. Chromium was detected at a concentration of 32.7 mg/kg compared with the Protection of Groundwater Standard of 19 mg/kg.

Investigation of Soil Vapor Contamination Beneath the Raw Materials Storage Area Inside the Main Manufacturing Building

On November 25, 2008, nine soil borings, identified as SB-1 through SB-9, were advanced beneath the floor of the raw materials storage area of the main building to investigate for VOC (i.e., trichloroethene (TCE), tetrachloroethene (PCE), and 1,1,1-trichloroethane (1,1,1-TCA)) soil vapor contamination, which had been previously identified by FPM Group in October 2007. FPM had also detected soil vapor contamination beneath the manufacturing area and the eastern portion of the main building, and beneath the plastics manufacturing area of the plastics manufacturing building, although the most significant impacts were noted in the raw materials storage area.

Within the raw materials storage area, the soil borings were advanced to a total depth of 8 feet below grade utilizing a direct-push drilling rig except at SB-1. At each boring, the soils were field screened visually and with a PID. At SB-1, only surface soils beneath the building concrete floor slab were screened due to physical constraints that limited drill rig access. The soil boring locations were selected on the date of the field investigation based on a visual inspection of the raw material storage area. The boring locations were selected in areas of floor cracks or concrete floor joints except for SB-1 which was requested by the NYSDEC due to slight discoloration/staining of the concrete floor. A partial building plan identifying the approximate boring locations is provided as Figure 2.

The field screening identified VOC impacts at boring locations SB-6, SB-8 and SB-9 based on maximum PID responses of 85.9, 54 and 550 ppm, respectively. There was no visible evidence of contamination in any of the soil borings. Soil samples were retained from locations SB-2, SB-6, SB-8 and SB-9. For SB-6, SB-8 and SB-9, the samples were retained from the intervals where the PID responses were detected. The soil samples were submitted to the analytical laboratory and analyzed for TCL VOCs. The sampling results are summarized in Table 3, boring logs are included in Appendix B and the laboratory reports are included in Appendix C. Despite the detected PID responses during field screening, no VOCs were detected in the soil samples, as shown in Table 3.

In summary, field screening identified VOC impacts based on elevated PID responses at boring locations SB-6, SB-8 and SB-9. However, no soil contamination source areas were identified based on the soil sampling results. The contamination detected during the field screening was greater in the boring locations at the south end of the raw materials storage area. The highest concentration was detected in the sample closest to the shipping/receiving area. Overall, this soil vapor investigation was not definitive in identifying the presence or potential presence of a soil vapor contamination source area. The potential exists that the VOC contamination is limited to soil vapor impacts and there are no source areas in the soil. Due to difficulties with identifying soil vapor contamination source areas, further investigation may not yield more constructive results. Although the VOC soil vapor concentrations identified by FPM exceeded the New York State Department of Health (NYSDOH) guidance values for evaluating the

potential for soil vapor intrusion into the site building(s) [Ref. NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006], it is recommended that further evaluation of the soil vapor contamination consider the planned future site and building use.

West Basement Sump Piping Delineation

The NYSDEC requested in their April 25, 2008 comment letter, that the ejector pump piping from the sump located in the western portion of the main building basement be delineated to determine the discharge location. On November 26, 2008, dye testing of the basement sump confirmed that the discharge location was the recharge basin located on the western portion of the property. The piping discharge comprised a 4-inch diameter PVC pipe on the eastern side of the recharge basin. Confirmation of the discharge location was witnessed by the NYSDEC. ✓

Investigation of Heat Treatment Building Sump

As part of this environmental investigation and part of the scope of work requested by the NYSDEC, a sump within the heat treatment building was cleaned and sampled. The sump is not currently in service but had historically been used as part of a heat treatment for metal fasteners. A sizeable piece of equipment fitted with a conveyor belt remains in the sump. The sump is approximately 4 feet in width by 15 feet in length and 3 feet in depth, and situated horizontally in a general east-west direction. Prior to cleaning, the base of the sump contained miscellaneous corroded metals flakes, which are suspected to have been part of the metallic surface of the equipment, dirt and debris. After manually dry-cleaning (i.e., without water) the sump, the concrete base and sidewalls of the sump were inspected to determine whether there are structural cracks in the concrete that may have permitted drainage. All collected debris was containerized and sampled for metals and VOCs for off-site disposal.

As requested by the NYSDEC, two samples were collected from the base of the sump. The first sample, identified as Sump 1 – Drain, was collected from the eastern end of the sump from what appeared to be a drain that was blocked with soil and debris. The second sample, identified as Sump 2 – West Pipe, was collected from the western end of the sump in an area of exposed soil adjacent to a pipe penetration through the base of the sump. Although disconnected, the piping is suspected to have been historically connected with a pump house located to the west of the heat treatment building. The pump house was found to have a groundwater well and a horizontal liquid holding tank. The tank is believed to have been used as a water holding tank.

The two sump samples were submitted to the analytical laboratory and analyzed for TAL metals, VOCs and SVOCs. The sampling results are summarized in Table 2. Laboratory reports are provided in Appendix C. As shown in Table 2, no VOCs or SVOCs were detected above the 6 NYCRR Part 375 cleanup guidelines. However, multiple metal contaminants including arsenic, cadmium, chromium, lead, mercury, nickel and selenium were detected above the relevant site cleanup guidelines. Based on these results, remediation beneath the sump is warranted. As part of any remedial action, the excavated soils from this area should be properly characterized for disposal considering the contaminant concentrations may exceed the maximum concentration for toxicity characteristic (i.e., hazardous waste, 6 NYCRR Part 371.3(e)).

Investigation of the Main Building's Front Stormwater Roof Drain Leaders

Stormwater roof drain leaders located at the front of the main facility building were delineated using a closed-circuit drain camera and through manual excavation. The roof drain leader locations are shown on Figure 1. One roof leader was located near the corner of the building in the vicinity of former leaching pools CP-2 and CP-2B. This roof leader was found to discharge to a below grade clay pipe directed from the building to the east. This pipe, however, was terminated approximately 10 feet to the east of the location where the vertical roof leader entered the ground. Further east of the pipe termination, approximately 22 feet from the east side of the building, a buried brick debris area was identified. This may be indicative of a former stormwater leaching pool that was removed from service. Currently, stormwater from this roof leader overflows where the vertical roof leader entered the below grade clay pipe, as expected since the below grade clay pipe does not discharge to a leaching structure. Based on erosion of the surface soils in the vicinity of the roof leader, it appears that stormwater has run across the grade surface to the south towards Union Boulevard for some time.

Two additional roof leaders were investigated in the vicinity of former leaching pool CP-3. In this area, an additional subsurface leaching pool was identified that is suspected to be connected with the two roof leaders based on the piping directions. The two roof leaders were found to each discharge into below grade clay piping. Both pipes were obstructed with debris that prevented complete delineation with the drain camera. The additional leaching pool, identified as Roof Drain Pool, was sampled for metals, VOCs and SVOCs. Based on surface erosion, these two leaders also appeared to backflow and discharge to grade due to the below grade piping obstructions. Soils within the roof drain leaching pool, however, appeared partially wet indicative of recent water infiltration. The leaching pool sampling results are summarized in Table 1 and copies of the laboratory reports are included in Appendix C. No metal, VOC or SVOC contamination was detected in the roof drain leaching pool above the site cleanup criteria.

A sanitary access port was identified between the roof drain leaching pool and CP-3. Based on dye testing, this access port was found to be downstream from a sanitary access manhole located indoors within the facility manufacturing area. Sanitary washrooms and a maintenance slop sink near this manufacturing area were connected with this sanitary discharge.

Summary and Recommendations

A summary of environmental conditions identified at the subject property as part of this investigation are provided within this section. Recommendations provided by H2M are based on the assumption that DFCI Solutions, Inc will pursue a property sale and a subsequent formal facility (RCRA) closure in accordance with 6 NYCRR Part 373.

1. An environmental investigation of former leaching pools CP-1 and CP-2 determined that remediation of CP-2 is warranted from 7 feet below grade to a minimum depth of 12 feet. Remediation of CP-1 from 7 to 12 feet is also warranted based on the previous findings by FPM Group. Fill material within CP-1 and CP-2 did not have any contaminant impacts above the cleanup criteria, and therefore can be segregated for onsite reuse.

endpoints after removal to 12' BGS

Former secondary leaching pools associated with CP-1 and CP-2 were identified. These structures (i.e., CP-1B and CP-2B) had historically been removed from service. Soil borings were advanced next to these structures and no contaminant impacts were detected. No further action is recommended regarding CP-1B and CP-2B. *ok*

2. Piping delineation efforts identified the location of the former sanitary leaching pool associated with the plastics manufacturing building. This leaching pool, located outdoors to the west of the building's exterior wall and identified as Plastics CP, was sampled for TAL metals, VOCs and SVOCs. *Hg 0.87*
Cd 14.1
Cu 523 Due to mercury, cadmium and copper exceedences, in comparison with the site cleanup criteria, remediation of this structure is warranted. ✓

3. Soil sampling was conducted at the recharge basin, former metal shed, former kerosene tank containment area and demolished storage shed. Based on the sampling results, limited soil remediation is warranted at each location due to metal exceedences. At the recharge basin, excavation is recommended in the north and west areas to a depth of 18-inches and a minimum of 24-inches in the southern area. Remediation at the former metal shed and demolished shed areas is recommended to a depth of 18-inches. At the former kerosene tank containment area, remediation is recommended to a minimum of 24-inches. *Wtld Shed*
Demd
As 31.6
*Cd 34.3**
Cr 241
Cu 371
Mn 3670
*Ni 1100**
21.3
Kero
Cd 36.1
Cr 65.5
Cu 312

Cd: 282
Cr: 32.7
*Ni: 219**

4. Limited soil sampling was conducted in an area adjacent to but to the west of the heat treatment building where abrasive material from parts finishers (i.e., tumblers) was observed on the ground. Based on cadmium and chromium cleanup criteria exceedences in a surface soil sample, soil remediation in this area is recommended.
5. Soil vapor contamination had previously been identified at the site by FPM at concentrations above the New York State Department of Health (NYSDOH) guidance values for evaluating the potential for soil vapor intrusion into the site building(s). A soil investigation in the raw materials storage area inside the building did not identify any soil vapor contamination source areas although field screening confirmed VOC impacts based on elevated PID responses at select borings. Due to difficulties with identifying soil vapor contamination source areas, further investigation may not yield more constructive results. It is recommended that further evaluation of the soil vapor contamination consider the planned future site and building use.
6. Delineation of piping from the west basement sump confirmed that the discharge location was the recharge basin located on the western portion of the property. No further action is recommended. ✓
7. A sump located with the heat treatment building was cleaned and subsequently sampled in two locations. Based on metal contamination in the soils beneath the sump, remediation beneath the sump is warranted. As reported herein, the excavated soils from this area should be properly characterized for disposal considering the contaminant concentrations may exceed the maximum concentration for toxicity characteristic (i.e., hazardous waste, 6 NYCRR Part 371.3(e)). *ok +6*
8. Stormwater roof drain leaders located at the front of the main facility building were delineated using a closed-circuit drain camera and through manual excavation. One roof leader was located near the corner of the building in the vicinity of former leaching pools CP-2 and CP-2B. This

Ag 1.42
As 43.9
Cd 382
Cr 2160
Cu 2050
Pb 923
Ni 5840
Se 19.9

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roof leader was found to discharge to a below grade clay pipe directed from the building to the east. This pipe, however, was terminated approximately 10 feet to the east of the location where the vertical roof leader entered the ground. Based on evidence of a formerly abandoned subsurface leaching pool to the east of the terminated piping, no further action is recommended. ✓

Two additional roof leaders were investigated in the vicinity of former leaching pool CP-3. These leaders are suspected to have or still partially discharge to a leaching pool between these two vertical roof leaders. The below grade drainage piping is mostly obstructed although partial flow is suspected since the soils within the leaching pool were damp. Sampling of this leaching pool (i.e., Roof Drain Pool) for metals, VOCs and SVOCs did not detect any contaminant exceedences relative to site cleanup criteria. No further action is recommended. ✓

In addition, a sanitary access port was identified between Roof Drain Pool and CP-3. Based on dye testing, this access port was found to be downstream from a sanitary access manhole located indoors within the facility manufacturing area. Sanitary washrooms and a maintenance slop sink near this manufacturing area were connected with this sanitary discharge. No further action is recommended regarding these sanitary sewer structures. ✓

If you should have any questions or concerns regarding this report, please contact me at (631) 756-8000 x1483

Very truly yours,

HOLZMACHER, McLENDON & MURRELL, P.C.



Paul R. Lageraen, P.E
Sr. Project Manager

Attachments:

Figures 1 & 2

Tables 1-3

Appendices A-D