**Known Hazard Sites in the Arbor Hill Community**

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**Amos at Quackenbush***Corner of Broadway and Spencer Street*

Nature and Extent of Contamination: Several sources for the contaminants detected in soil, groundwater and soil vapor include historical, exhumed and possible existing underground storage tanks, building floor drains, automotive repair operations, surface runoff from gasoline fueling areas, historical petroleum spills, historical railroad spurs and historical industrial and commercial uses resulting in petroleum-related contaminants, solvents and metals impacts to on-site media. Soil Metals (primarily chromium and mercury) were detected in all soil samples above unrestricted use soil cleanup objectives (USCOs); some of the samples also had concentrations of lead, mercury and cadmium above the restricted commercial use SCOs. However, metal concentrations were typical of an urban industrial site. Semi-volatile organic compounds (SVOCs) were detected in about 10% of soil samples. The SVOCs above USCOs were all poly-cyclic aromatic hydrocarbons (PAHs) associated with petroleum and located in the area of the gas station and auto repair facility. Volatile organic compounds (VOCs) generally were not present in soil. However, PCE and dichloroethene (DCE) were detected at elevated concentrations in a floor drain in the auto repair facility. Thirteen post-excavation soil samples were obtained from the 2010 UST excavation IRM for laboratory analysis of volatile and semi-volatile organic compounds and metals. Based on the post-excavation soil sample results, all thirteen soils samples show total chromium values above the unrestricted use soil cleanup objective (USCO) of 1 ppm but below the restricted residential use SCOs. In addition, lead was reported above the USCO of 63 ppm along the north and south walls and, northwest corner of the excavation. All other lead concentrations are reported below the USCO. Mercury was also reported above the USCO of 0.18 ppm along the four excavation walls and in the northwest corner. Mercury concentration were below the RRUSCOs. VOC concentrations in all of the post-excavation samples were all non-detect and/or below their respective USCOs. With the exception of benzo(a)anthracene, chrysene, benzo(k)fluoranthrene and indeno(1,2,3- cd)pyrene in one sample, SVOC concentrations were non-detect or below their respective USCOs. Groundwater Excluding the naturally occurring sodium, iron and manganese, no dissolved metals were found to exceed ground water standards. As with the soil, the SVOCs detected above groundwater standards were petroleum related PAHs. The VOCs detected above groundwater standards were BTEX and methyl tertiary butyl ether (MTBE), which are all gasoline compounds apparently originating at the service station. Soil Vapor PCE was detected in four sampling points at up to 5800 ug/m3. Other chlorinated VOCs and BTEX compounds were also detected in soil vapor samples, but at lower concentrations.

**C and F Plating***404 North Pearl Street*

Nature and Extent of Contamination: A Remedial Investigation of the site was conducted from September 2011 through July 2012. Soils: a.) Contaminants Elevated concentrations of cadmium, chromium, copper, lead, mercury, zinc, barium and nickel were detected in surface and subsurface soil. b.) Areal extent/depth Elevated concentrations of the above listed metals occurred in on site surface soils on the northeast portion of the site behind and under the building. Elevated concentrations of these metals occurred in subsurface soils to a depth of primarily two to four-feet below ground surface (bgs) and ten to fifteen-feet bgs under the building. Sediment sampling results suggest that the creek sediments in the adjacent Patroon Creek have not been adversely impacted by site operations. The contaminants of concern do not appear to be contributing to off-site environmental impacts that require additional investigation or remedial action. c.) Concentrations Shallow Soil Shallow soil sample results indicated concentrations of barium, copper, chromium, cadmium, lead, mercury, nickel, silver, zinc above the 6NYCRR Part 375 unrestricted soil cleanup objectives (USCOs). Barium, chromium, copper, cadmium, lead, and nickel also exceeded the commercial soil cleanup objectives (CSCOs). Cadmium was detected in one sample just behind the building at 5,140 ppm, above the industrial soil cleanup objective (ISCO) of 60 ppm, and lead was detected in a shallow soil sample near the floor drain inside the building at 9,850 ppm, above the ISCO of 3,900 ppm. Copper was detected in two of the three shallow samples exceeded the CSCO of 270 ppm at concentrations up to 1,910 ppm. Nickel was detected at concentrations above CSCOs of 310 ppm in three of the three shallow samples at concentrations up to 4,290 ppm. Subsurface Soil Cadmium was detected at concentrations greater than the corresponding Part 375 CSCO level of 9.3 ppm in eight out of the twenty-two subsurface soil samples at concentrations up to 3,500 ppm. None of the subsurface samples exceeded the total chromium CSCO of 1,900 ppm, however nine of the twenty-two subsurface samples exceeded the USCO of 31 ppm, with concentrations up to 520 ppm. Copper was not detected at concentrations above CSCO of 270 ppm. Lead was detected at a concentration above CSCO of 1,000 ppm in one subsurface sample at a concentration of 1540 ppm. Mercury was not detected at concentrations above CSCO in any subsurface samples. Two of the twenty-two subsurface samples exceeded the CSCO for nickel of 310 ppm at concentrations up to 627 ppm. Groundwater: Analytical results from the groundwater sampling indicate direct impacts from past site operations. VOCs and SVOCs were not detected in groundwater samples above the NYSDEC groundwater standard as defined in 6 NYCRR Part 703. Several metals were detected at concentrations above NYSDEC groundwater standards. The primary contaminant of concern found above groundwater standards was cadmium. Cadmium was detected at 148 ppb, above the groundwater standard of 5 ppb. No off-site impacts to groundwater were detected. Soil Vapor: Since volatile organic compounds were not detected in soil or groundwater samples at this site, soil vapor sampling was not necessary. SIGNIFICANT THREAT: The site presents a significant environmental threat due to the presence of contaminants at the site and the potential for migration of that contamination.

# **Central Avenue Properties**

*524-526 Central Avenue and 455 Manning Boulevard*

Nature and Extent of Contamination: The Central Avenue ERP project consists of three parcels with a total land area of approximately 4 acres. This potential municipally owned Brownfields includes vacant parcels and a building which historically housed an automotive dealership and repair facility. The building is currently utilized for a division of the Albany Police Department. The surrounding area is urban mixed residential and commercial property. There are no documented contaminated media on the site at present. There are indications of potential contamination from on-site USTs, historical paint shop and auto repair facility operations. No previous investigations have been conducted at the site. The ERP application is complete. However, at present, the project is being reviewed for eligibility by DER staff and the ERP attorney. Potential for subsurface petroleum product, solvent and metals contamination from USTs and floor drains associated with historical property use.

# **Davies Office**

*40 Loudonville Road*

Davies Office Supplies runs a refurbishing center that brings with it air emissions.

# **Former Loudon and Kem Cleaners**

*350 Northern Boulevard*

Nature and Extent of Contamination: Based on investigations conducted to date, the primary contaminants of concern (COC) for the site include the following chlorinated solvents: tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC). In addition to volatile organic compounds (VOCs) soil and groundwater was also analyzed for semi-VOCS, metals, pesticides, and poly-chlorinated biphenyls (PCBs). Groundwater was also analyzed for per- and polyfluoroalkyl substances (PFASs). Soil vapor was analyzed for VOCs. Soil: Only a few site-related COCs were detected above the protection of groundwater soil cleanup objectives (PGWSCOs)/unrestricted use SCOs (UUSCOs) as follows: PCE at 11.9 milligrams per kilogram (mg/kg) or parts per million (ppm) vs. PGWSCO of 1.3 ppm, Cis-DCE at 0.44 ppm vs. PGWSCO of 0.25, and VC at 0.056 ppm vs. PGWSCO of 0.02 ppm. No metals, SVOCs, PCB/pesticides, or other VOCs were found above the commercial SCOs for soil. Site-related soil contamination is not expected to extend off-site based on the available data. Groundwater: Site groundwater is impacted primarily by PCE. Most recent sampling results have found PCE at concentrations up to 91 parts per billion (ppb) (standard is 5 ppb), and cis-1,2-DCE at 5.1 ppb (standard is 5 ppb). TCE was also found present, but at concentrations below the groundwater standard of 5 ppb. No metals, SVOCs, PCB/pesticides, or other VOCs were found above groundwater standards. Soil Vapor and Indoor Air: Sub-slab soil vapor and indoor air data were collected from six (6) locations on-site. Based on the data, soil vapor was only a concern under the southeast portion of the on-site building, which contained both former dry cleaners. PCE was detected as high as 130,000 micrograms per cubic meter (ug/m3), with a corresponding indoor air concentration of 9.8 ug/m3, on-site. On-site trichloroethylene (TCE) was also detected in the soil vapor as high as 14,000 ug/m3, with a corresponding indoor air concentration being non detectable. The highest indoor air concentration for TCE was 0.68 ug/m3, on-site. Off-site soil vapor intrusion evaluations were performed on the hospital property and the adjacent apartment complex, and it was determined that no off-site structures require mitigation.

**Former Moore Wallace Facility***120 Industrial Park Road*

Nature and Extent of Contamination: Information submitted with the BCP application regarding the environmental condition at the site are currently under review and will be revised as additional information becomes available.

# **NM – North Albany**

*404 North Pearl Street*

Nature and Extent of Contamination: Soil and groundwater samples were collected and analyzed for VOCs, SVOCs, metals, PCBs, and pesticides. The primary contaminants of concern are the chemical constituents of coal tar: benzene, toluene, ethylbenzene, xylene (BTEX) and polycyclic aromatic hydrocarbons (PAHs), including naphthalene. The tar is present as a dense non-aqueous phase liquid (DNAPL) which escaped from subsurface structures at the site into surrounding soils. There is also a small area of purifier waste (a waste by-product of the historic gas production process) in the east central edge of the site. South of Building 2 petroleum impacts and PCB contamination was found in the top 8 feet of soil, associated with fuel storage and repair activities conducted in that area. This PCB contamination was addressed by the South Yard Storage Area IRM. Soil: In the subsurface soil, BTEX and PAHs, including naphthalene are present in concentrations that exceed SCOs in areas adjacent to deposits of coal tar. These areas are found throughout the northern section of the site at depths from 2 to 25 feet below the surface. Due to the lateral migration of liquid tar, the contaminants are also found up to 400 feet off-site to the east, at depths between 20 and 25 feet. The contamination is found beneath both the railroad line and Erie Boulevard. Coal tar is also suspected to be present under the northern section of Building 2, as contamination has been found right up to the building’s footprint. This migration of contamination has occurred through soils, mostly at the bedrock interface and the sand and gravel layer just above that, well below the ground surface. Groundwater: The groundwater which comes into contact with the tar-contaminated soil is contaminated with BTEX and PAH at levels exceeding standards, criteria, and guidance. Contaminated groundwater is found both on and off the site downgradient, to the east and southeast, of source areas. Contaminant levels are found to be as high as 8,700 ppb for naphthalene and 2,900 ppb for benzene and ethylbenzene. The contaminated groundwater is found no more than 125 feet off-site. TCE and PCE were not found in groundwater samples. Soil Vapor: Soil vapor samples were collected both from parking lot areas and beneath the building slabs of Building 2 and the vehicle maintenance building. Sub-slab samples showed elevated levels of tetrachloroethylene, trichloroethene, as well as some gasoline and diesel constituents. The maximum contaminant levels were 26,000 micrograms per cubic meter for total xylene, 9,400 micrograms per cubic meter for ethylbenzene, 1,700 micrograms per cubic meter for tetrachloroethylene, and 32 micrograms per cubic meter for trichloroethene. The soil vapor samples from the parking areas showed some elevated levels of benzene. There is no evidence of soil vapor contamination migrating off-site. Indoor Air and Ambient Air: Indoor air samples were collected from Building 2 and the vehicle maintenance building to determine whether actions are needed to address exposures related to soil vapor intrusion. Ambient air samples were also collected from outdoor spaces on the site. The indoor air samples had elevated contaminant levels, but the levels were consistent with on-going use within the building and with the building inventories. At this time, the contaminants found in the soil vapor and indoor air sampling are still being used as part of the on-going operations.

# **Surpass Chemical Co., Inc.**

*404 North Pearl Street*

Surpass Chemical Company releases enough chlorine to be listed on the federal Toxic Release Inventory.

# **Westland Hills Inc.**

*404 North Pearl Street*

Nature and Extent of Contamination: Based upon investigations conducted to date, the site related contamination includes petroleum products, SVOCs and metals. The primary contaminants of concern are metals and in particular lead. Concentrations as high as 19,000 parts per million are present in the subsurface soils. Contaminants are impacting the subsurface soils and to a lesser extent the groundwater. Subsurface soils with total lead contamination ranging from approximately 3,330 to 19,000 ppm also failed TCLP testing, making the material hazardous. The lead contamination within the site soils is located at depth. There does not appear to be significant surface soil contamination. Specific Resources Impacted/Threatened: Groundwater.

# **Railroads**

Highways run through the eastern and northern lines of the Arbor Hill Development Corporation’s coverage area.

# **Highways**

I-90, I-787, and US Hwy 9 all run through the Arbor Hill Development Corporation’s coverage area. Additionally, major roads like State Route 85, Washington Avenue, Clinton Avenue and Central Avenue are all contained within the same coverage area.

Hazard sites were determined using the New York State Department of Environmental Conservation’s Environmental Site Remediation Database, available [**here**](https://www.dec.ny.gov/cfmx/extapps/derexternal/haz/results.cfm?pageid=3). Street and rail data was collected from the USGS National Transportation Dataset for New York State, available [**here**](https://catalog.data.gov/dataset/usgs-national-transportation-dataset-ntd-for-new-york-20180117-state-or-territory-shapefile). River and stream data was collected from the USGS Small-Scale Data set, available [**here**](https://catalog.data.gov/dataset/usgs-national-transportation-dataset-ntd-for-new-york-20180117-state-or-territory-shapefile).

This map was created by Greg Campbell-Cohen using QGIS 3.12 on Desktop in Windows 10. The project coordinate reference system is ESRI: 102716 (New York Central). The project is available on GitHub [**here**](https://github.com/gregcampbellcohen/arbor-hill-hazard-map).