United States Environmental Protection Agency
Region III
Corrective Action Program

FINAL
Environmental Indicator Inspection Report
For

Capitol Products Corporation
6034 Carlisle Pike (Route 11)
Mechanicsburg, Pennsylvania 17055

EPA ID No. PAD 003004405

Prepared By

Baker

August 2009

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RCRA SITE INSPECTION REPORT

Purpose: To gather relevant information from the Capitol Products Corporation (Capitol) facility, to determine whether human exposures and groundwater releases are controlled, as per Environmental Indicator Determination forms.

Documentation Review: Prior to the meeting, Mr. Matthew Myers, an Environmental Associate of Michael Baker Jr., Inc (Baker) conducted an extensive record search at the Pennsylvania Department of Environmental Protection (PADEP) South Central Regional Office and the U.S. Environmental Protection Agency (USEPA) Region III Philadelphia Office. Subsequent to the site visit, representatives from the William L. Bonnel Company (a subsidiary of Tredegar Corporation [Tredegar]), Capitol's successor, Science Applications International Corporation (SAIC) (Tredegar's consultant), and PADEP provided Baker with additional information to be incorporated in the report.

Attendees at Site Inspection:

Name	Organization	Phone Number	E-Mail address
Mr. Matthew Myers	Baker	412-375-3064	mmyers@mbakercorp.com
Mr. Terry Snell	William L. Bonnel Company	770-254-7690	tdsnell@bonlalum.com
Mr. Thomas Marrs	SAIC	717-901-8816	thomas.o.marrs@saic.com
Ms. Linda Houseal	PADEP	717-705-4919	lhouseal@state.pa.us
Ms. Kathleen Horvath	PADEP	717-705-4866	khorvath@state.pa.us
Ms. Lisa Wilt	PADEP	717-705-4910	lwilt@state.pa.us

Meeting Summary: A meeting at the former Capitol facility was held on September 13, 2007, with the attendees noted above. Mr. Myers presented the facility with information regarding USEPA Region III's Corrective Action process, the Environmental Indicator Assessment Program and the legislation driving this program. Under this investigation, USEPA Region III is focusing on two interim Environmental Indicators to evaluate whether any unacceptable risk to human health and the environment is ongoing at each priority facility. The two indicators are to determine if human exposures are controlled and groundwater releases are controlled. Prior to and during the site inspection, outstanding issues and discrepancies encountered in the file review summary were discussed.

The site visit continued with an overview of former Capitol property. Photographs of the site visit are presented on Appendix A – Photographs.

A. Location and Operational History of the Facility, Including all Wastes Generated at the Facility and their Management.

Site Layout and Background Information

Capitol was an extruded aluminum products manufacturer in Mechanicsburg, PA that operated between 1956 and 1991. Capitol fabricated aluminum windows, doors, light fixtures, and other products by melting scrap aluminum and casting the metal into billets, extruding the billets, cleaning and anodizing their surfaces, and painting the finished metal at the 6034 Carlisle Pike facility in Cumberland County. The facility's buildings occupied 650,000 square feet of property, the majority of which was dedicated to the construction of final aluminum products. The property, approximately 45 acres, is bordered by U.S. Route 11 to the north, Overnite Transportation Company/UPS Freight on the west, the United States Navy Ship Parts Control Center (NSPCC) to the south and southeast, and Brandywine Group on the east (Appendix B – Site Location Map). Within the property boundary (adjacent to the southern side of the processing facility), wastewater and cooling water lagoons that had been used by the facility, were filled with soil and closed in 1985.

Capitol owned the site from 1956 until it sold the property to Olympic Realty and Development Corporation in 1995. Prior to 1956, several families owned the properties that became Capitol. Activities on the properties prior to 1956 are unknown. Ethyl Corporation obtained a controlling interest in Capitol Products in 1969. Tredegar Industries (now Tredegar Corporation), headquartered in Richmond, VA, became the sole shareholder of Capitol in July 1989 when Ethyl Corporation spun off its plastic and aluminum businesses, including Capitol. Due to continuous business deterioration, the Capitol facility closed in February 1991 and the property was marketed for sale.

On behalf of Tredegar, R.E. Wright Associates, which was later acquired by SAIC, evaluated the environmental integrity of the property as part of the facility shut-down plan (report dated March of 1993). Subsequently, SAIC completed numerous extensive environmental investigation, remediation, and monitoring projects at the facility.

To facilitate the redevelopment of the property, the facility was demolished in 1994. As part of the redevelopment activities, a select number of groundwater monitoring wells was abandoned. Remediation and monitoring activities at the facility are discussed in the section entitled *Investigations and Remedial Actions to Date*.

The former facility is currently occupied by a shopping center complex that includes Home Depot, Circuit City, Dick's Sporting Goods, and other commercial entities along Carlisle Pike (Appendix A - Photographs).

Per the Consent Order and Agreement (COA), as described in *Permit and Regulatory Action History*, additional groundwater monitoring wells were installed and are being monitored on a semi-annual basis by SAIC. During the most recent sampling event in March 2008, six monitoring wells were sampled. Although historically, benzene, 1,1-dichloroethene (DCE), 1,2-DCE, 1,1,1-trichloroethane (TCA), tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride have been detected above their respective maximum contaminant levels (MCLs) in select wells, MCL exceedences for the March 2008 sampling event were only exhibited in one well (MW-13). Within the last two years, at this location, all six of the chlorinated hydrocarbons noted above were found at concentrations exceeding their respective MCLs; benzene was not detected.

Permit and Regulatory Action History

On August 8, 1980, Capitol filed a Notification of Hazardous Waste Activity. The United States Environmental Protection Agency (USEPA) assigned the facility USEPA ID No. PAD003004405. (Documents cited are included in Appendix C - Inventory of Documentation and Reference Documents).

Capitol submitted Part A Hazardous Waste Permit Application for generation and treatment, storage, or disposal (TSD) on November 14, 1980. USPEA notified Capitol that the Part A permit was complete on July 20, 1981and identified wastes for handling as D002, F002, F006; process codes were S01 and T01.

On November 5, 1982, PADEP requested a Part B Permit Application. PADEP issued Capitol a Notice of Violation (NOV) on January 27, 1982 for shipping hazardous waste with a transporter (J.D. Company) that was unauthorized to operate in Pennsylvania.

On October 3, 1983, Capitol notified PADEP that Part B would not be submitted because the lined wastewater lagoon and the unlined cooling water pond would be closed and discharge of wastewaters would be directed to the Hampden Township Sewage System. In the same submittal (on October 3, 1983), Capitol requested that the status of its facility continue to be a waste generation site. Furthermore, Capitol requested deletion of its storage status and deletion of its treatment facility status.

A revised Notification of Hazardous Waste Activity was submitted due to the deletion of storage activities. Later on March 12, 1987, PADEP determined that the chromium hydroxide sludge generated by the facility's wastewater treatment system did not contain any hazardous constituents at concentrations posing a threat to the environment. The sludge was delisted and was handled as a nonhazardous residual waste.

On June 14, 1989, a Potential Hazardous Waste Site Preliminary Assessment form was completed and on September 29, 1989, NUS Corporation completed an Environmental Priorities Initiative Preliminary Assessment for the site.

Capitol entered into a Consent Assessment of Civil Penalty on June 5, 1990 for failing to store hazardous waste at least 50 feet from property lines.

On February 28, 1991, Capitol submitted the Preparedness, Prevention and Contingency Plan (PPC) and the Spill Response Plan (SRP) to PADEP noting all manufacturing operations ceased on February 8, 1991. The facility noted that it had no plans to reopen for manufacturing in the future. All storage tanks were being emptied with inlets and outlets sealed closed.

On April 12, 1991, Capitol received a NOV following the March 12, 1991 inspection for improperly closing and labeling drums of hazardous waste and accumulating hazardous waste without a permit. Then, on May 22, 1991, Capitol entered into a Consent Assessment of Civil Penalty for failing to permanently label and close containers of hazardous waste and accumulating hazardous waste without a permit. Later, on December 6, 1996, PADEP notified Capitol that the legal description provided by Capitol in the January 27, 1995 COA contained deficiencies; PADEP substituted the corrected legal description for the former description.

National Pollution Discharge Elimination System (NPDES)

According to available records, Capitol did not operate under a NPDES permit.

B. Description of all Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs)

SWMUs

The following table illustrates the five SWMUs that were present at the facility during operation:

SWMUs				
No.	**Name**	**Location**	**Wastes Managed**	**Release Controls**
1	Wastewater Treatment System	NW corner	Removed metal pretreatment waste through 4,700-gallon tanks; generated a chromium hydroxide sludge shipped as nonhazardous residual waste	Floor drains returned overflow to original waste stream; discharge to the sewer system was monitored
2	Chromium Hydroxide Sludge Roll-off (30 yd^3)	E corner	Chromium hydroxide sludge	Indoors, concrete loading dock, surrounded by walls, angled floor
3	Waste Paint/Solvent Drum Storage Area	Outside Wall	Spent solvent from cleaning and painting: toluene, xylene, waste paint	Concrete floor, surrounded by walls, entrance blocked by gate
4	Waste Sodium Hydroxide Tanks (4, 700-gallon)	NE	Waste sodium hydroxide containing aluminum	Tanks bolted to a concrete floor, 4-inch high dike
5	Empty Drum Storage Area	W	Solvents, paints, lubricants, oils	Wooden pallets, asphalt surface, runoff away from adjacent grassy area toward a storm drain

Records do not indicate the dates of start-up for each area, or plans for closure. Records do not indicate any releases from the areas; however, the concrete block under the overflow pipe at the caustic storage tank room was deteriorated and covered in a flaky, white precipitate.

Storage Tanks

In conjunction with inspections, the PPC indicates that the following aboveground storage tanks (AST) were present at the facility:

Volume (Gallons)	Contents
250,000	No. 2 Fuel Oil
6,000	Diesel
1,000	Gasoline
1,000	Waste Oil
10,000	Phosphoric acid
2,000	Phosphoric acid
1,200	Calcium hydroxide/water
5,000	Toluene
1,000	Toluene
1,000	Toluene
1,000	Toluene
1,000	Toluene

Most storage tanks were removed in 1994 prior to demolition activities. Also, a 6,000- gallon underground storage tank (UST) storing No. 2 Fuel oils (i.e., diesel fuel) was removed in October 1994 after it was discovered beneath the floor near the in-house well.

Investigations and Remedial Actions to Date

No wastes were disposed on the property during the operating history although a concrete-lined wastewater lagoon used to hold treated wastewater and an unlined contact cooling water lagoon were operated by the facility. Both lagoons were formally closed under PADEP supervision on May 15, 1985. The lagoons have since been filled with soil and graded to the level of the surrounding terrain.

As part of the facility shut-down plan, SAIC evaluated the environmental integrity of the property. A soil boring program advanced 30 borings to investigate a suspected source area. The investigation identified limited volatile organic compounds (VOCs), no semi-VOCs, and no levels of inorganic constituents above background concentrations. Primarily, the VOCs detected consisted of chlorinated hydrocarbons. The investigation was unable to identify the source area for VOCs detected in the groundwater. The groundwater investigation included the installation of six monitoring wells ranging in depths from 33 to 120 feet below grade surface (bgs). Potentiometric surface maps suggest the local groundwater flows from the facility generally to the north and to the south. Regional groundwater appears to flow north based on local dye studies.

A deep in-house well (689 feet deep former production well) was discovered in the northern section of the facility during the shut-down evaluation. A small quantity (approximately 10 gallons) of free-phase hydrocarbons was identified and removed from the well. The composition of the free-phase hydrocarbon was not identified in any of the historical reports reviewed. Contamination was evaluated in several of the water-bearing zones of the in-house well. Contaminant levels [564 to 1,092 micrograms per liter (ug/L) of VOCs] were consistent from the surface to a depth of 270 feet bgs. Contaminant concentrations increased to approximately 2,000 ug/L of total VOCs below a depth of 300 feet bgs. SAIC concluded that the well is likely contaminated by off-site source areas. Capitol correspondence to PADEP on September 2, 1994 suggested the in-house well be abandoned to prevent cross-contamination between shallow groundwater and the deep aquifer. Per the request of PADEP, this well still exists and is located in front of Circuit City. However, the well was retrofitted using 2-inch diameter PVC well casing and screen materials. Although the detailed construction is unknown (e.g., screen length), it now has a reported depth of 370 feet bgs.

On April 21, 1994, Capitol notified PADEP that the former building was currently being demolished and provided an updated tank registration form from the remaining 252,000-gallon AST. The AST was removed from service in 1986 and removed from the facility on May 27, 1994.

On July 12, 1994, PADEP reviewed the five submitted soil and groundwater studies (Soil and Electromagnetic Investigation, Evaluation of Site-Wide Groundwater Quality, Evaluation of Groundwater Quality, Subslab Soil Screening Letter, and Design for Soil Bioremediation) performed at the facility. PADEP agreed that the soil contamination delineated in the soil report (March 1994) did not require any active remediation with exception of buried soil near location L-5; it represented a direct contact threat and a deed restriction against future excavation in the Overflow Pond area was recommended.

On September 9, 1994, SAIC sent Capitol a summary of completed chromium concrete abatement activities. Chromium staining was the result of leakage from aluminum painting and cleaning booths. Capitol later notified PADEP of plans to remove and dispose chromium-impacted soil and piping beneath the slab.

On September 28, 1994, Capitol sent correspondence to PADEP summarizing conclusions from a recent meeting: PADEP agreed to consider abandoning the in-house well. Remedial action criteria on the chromium contaminated soil beneath the concrete included 1,000 mg/kg total chromium screening standard, confirmation sampling using X-ray fluorescence, and confirmation sampling by laboratory testing for 10% of the samples. For TPH, the field screening standard was agreed to be 500 mg/kg. The plan was submitted to PADEP on October 17, 1994. For groundwater, Capitol stated they would re-examine the historical records to find the source of the pentachlorophenol (PCP).

Capitol requested a "30-day Notification to Remove" the 6,000-gallon No. 2 fuel oil UST discovered during the removal of two concrete floors on September 30, 1994. PADEP notified Capitol allowing the closure for the UST on October 3, 1994; no holes were observed in the tank. Laboratory analyses received and documented in an October 21, 1994 letter showed TPH constituents were not detected. PADEP closure report acknowledgement was received on December 8, 1994.

Hampden Township denied Capitol's request on October 19, 1994 to discharge purged groundwater from the site as Capitol was disconnected from the Township sanitary sewer system and all sanitary sewage must be discharged through the building's sewer.

On November 18, 1994, Capitol sent PADEP an evaluation of PCP in shallow groundwater showing seasonal variation. PCP was only detected in ME-DG-11D and was not migrating. Although no remediation was warranted, groundwater quality monitoring was continued to confirm improvement. No PCP was detected in the former spray pond area and no facility activities or records were identified relating to PCP usage. In a separate letter dated November 18, 1994, Capitol evaluated the VOCs in shallow groundwater and outlined the recovery and treatment of VOCs from ME-DG-2 and ME-DG-9. Two additional monitoring wells were proposed to characterize groundwater leaving the southern property line. The wells would be monitored quarterly along with the current wells. SAIC presented a series of groundwater treatment technologies to treat groundwater from ME-DG-11D. If groundwater treatment were initiated at the facility, SAIC recommended a groundwater pump and treatment system using liquid-phase granular-activated carbon (GAC) for treatment of VOCs in the extracted (pumped) groundwater.

On November 22, 1994, PADEP approved disposing treated discharge onto the ground surface onsite following VOC removal from purge water.

Capitol sent PADEP the groundwater monitoring and closure plan for the in-house well on November 29, 1994. SAIC concluded in June 1994 that groundwater chemistry encountered in the in-house well was representative of the regional deep groundwater flow system and not the local shallow groundwater flow system penetrated by the Capitol monitoring wells. VOCs present in the in-house well were similar to VOCs known to be present in the adjacent NSPCC. Thus, this contamination was likely from off-site source areas.

A COA was established between PADEP and Capitol and Olympic Realty & Development Corporation on January 27, 1995. The document stated contamination exists and remediation activities will meet PADEP Cleanup Standards without threat of further groundwater contamination. The Remediation Work Plan provided for the excavation, bioremediation, and off-site disposal (as necessary) of contaminated soils. The work plan also included monitoring of groundwater and the implementation of remediation in the event monitoring results demonstrate that groundwater quality does not show a decreasing trend in VOC concentrations. The document prohibits use of the groundwater for potable use. An exhibit to the COA is the Remediation Work Plan. The Remediation Work Plan describes the remediation activities that have taken place at the facility and identified the remediation obligations by Capitol under the COA. The COA is recorded in the Cumberland County Recorder of Deeds and is transferable to subsequent property owners.

On February 2, 1995, Capitol submitted the Closure Report for the Soil Bioremediation Project which contained results of the soil monitoring program and soil sampling results involving 5,000 cubic yards of petroleum-impacted soil. All closure samples contained TPH concentrations below the laboratory detection limit or below the 500 mg/kg negotiated cleanup standard. Active treatment was discontinued as bioremediation objectives were met. PADEP reviewed the Closure Report for the Soil Bioremediation Project and approved the use of soils for fill on site as specified in the work plan on February 16, 1995.

On May 2, 1995, PADEP sent Capitol groundwater monitoring results for the Skyport Road and the NSPCC site which showed contaminant levels slightly lower than previous sampling events. PADEP indicated that dilution may be the cause since water table elevations were six feet higher

than during the previous round. Although the distances of the individual 'sites' within the neighboring NSPCC facility varies from less than 1,000 feet up to approximately one mile away from the Capitol facility, several of the NSPCC sites have exhibited significant petroleum hydrocarbon and chlorinated hydrocarbon contamination in both the soil and groundwater horizons and may be in the approximate up-gradient regional groundwater flow direction. Even though over one dozen individual sites have been closed at NSPCC with receipt of No Further Action by the USEPA, the potential environmental impact was so antiquated that residual effects to the soil, bedrock, and groundwater media at NSPCC was believed to be no longer measurable. It is understood that more recent investigation/remediation activities have taken place at the NSPCC with the installation of two deep (250ft) groundwater monitoring wells. TCE, 1,1-DCE, chlorobenzene, and vinyl chloride were detected in these two deep wells.

Furthermore, the neighboring Overnite Transportation Company/UPS Freight has documented soil and groundwater investigations and remediation that have taken place on their property to the west. The details of these investigations and subsequent remediation activities are currently unknown.

Capitol submitted the Investigation of Soil Beneath the Floor - Volumes I & II to PADEP on July 7, 1995 noting: the concrete slab was removed in June 1994 and investigative and post-excavation confirmation soil samples were collected. Soils with more than 500 mg/kg of TPH were excavated. Soils containing TPH concentrations greater than the 500 mg/kg soil standard remained at the soil/bedrock interface after the conclusion of remedial activities. All chromium-contaminated soil was believed to be excavated. All post-excavation samples indicated that all impacted soil was removed, treated, and/or disposed with no further excavation necessary.

On December 13, 1995, PADEP reviewed the Closure Report for Soil Bioremediation Project and results were satisfactory, meeting the goals outlined in the January 27, 1995 COA.

On February 5, 1996, Capitol submitted the Modified Soil Screening Protocol to PADEP indicating that subsurface features would be removed to assist in re-development of the site. The protocol included modifications to adapt to cold weather that would hinder prior protocols allowing for a uniform temperature for Organic Vapor Analyzer (OVA) scanning. PADEP reviewed and accepted the Modified Soil Screening Protocol for additional excavation activities on February 23, 1996.

Capitol sent PADEP final PCP groundwater sampling results on July 25, 1996. Noted in the correspondence was confirmation of the meeting agreements with PADEP on March 18, 1996 regarding the construction of the retail shopping center planned to be built over groundwater monitoring wells ME-DG-11D/ME-DG-11S and ME-DG-2. At this time, PADEP gave permission to abandon the wells; on April 9, 1996, Capitol abandoned the wells.

On August 20, 1996, Capitol sent PADEP the Removal of Subsurface Site Improvements noting 2,429 tons of TPH and VOC-impacted soil, aluminum dross, and debris were excavated from the building footprint and 200 tons of TPH-impacted soil were excavated and disposed from the parking area. At the request of PADEP, no excavation occurred within the limits of the former lagoon spray pond.

On November 21, 1996, Capitol sent PADEP correspondence and lab results from pieces of debris known as "furnace bottoms" that were removed during the excavation for the shopping center. Analyses from disposal at Modern Landfill and Recycling in York County, PA verified that the material was innocuous. The construction schedule for the shopping center required moving the bottoms prior to receipt of the disposal permit. Five tons of furnace bottoms were temporarily stored until the disposal permit was obtained. The bottoms were transported to the Cumberland County Landfill instead of transporting the trailer to the temporary storage area.

PADEP agreed that MW-14 could be reduced from quarterly to semiannual monitoring following a long-term decline in contaminant levels on December 24, 1996. PADEP came to the same conclusion on May 20, 1997 for ME-DG-9 and MW-13 following a long-term decline in contaminant levels.

Capitol submitted the results of the first semi-annual groundwater-sampling event for 2005 on May 13, 2005 to PADEP and included laboratory results. ME-DG-9 and MW-13 exhibited benzene and PCE compounds above the applicable MCLs. All remaining wells did not have compounds above the MCL.

On November 30, 2006, Capitol submitted the results of the semi-annual groundwater-sampling event to PADEP noting the replacement of the dedicated pump following a mechanical failure at MW-14. ME-DG-9 exhibited benzene above the MCL and MW-13 exhibited 1,1-DCE, PCE, TCE, and vinyl chloride above their respective MCLs. All remaining wells did not exhibit

compound concentrations above their respective MCLs. From the results, SAIC stated that natural attenuation processes were in place in the area of MW-13. PADEP acknowledge receipt of the September 2006 Groundwater Monitoring Report on February 15, 2007. In response to the request to perform annual instead of semi-annual sampling, PADEP recommends obtaining an Act 2 release of liability or continue with the sampling regime outlined in the COA.

A subsequent semi-annual groundwater monitoring letter was sent by SAIC to PADEP on October 23, 2007. From the letter, it was obvious that increasing trends in the concentrations of chlorinated hydrocarbons may be taking place exclusively in monitoring well MW-13. The March 2008 semi-annual groundwater sampling letter to PADEP (obtained from a letter from SAIC dated May 28, 2008) confirmed MW-13 still exhibited 1,1-DCE, PCE, TCE, and vinyl chloride above their respective MCLs.

Per the COA Remediation Work Plan, if during the monitoring period, VOC concentrations in any of the compliance wells do not show a decreasing trend (after consideration of seasonal variation), a groundwater remediation assessment will be prepared and submitted to PADEP for approval. Groundwater remediation will be initiated if the assessment demonstrates that remediation will be feasible, taking into consideration the presence of groundwater contamination already existing on adjacent properties from offsite sources. As an increasing trend has not been established from the semi-annual groundwater monitoring, monitoring will continue at the facility.

The November 5, 2008 semi-annual groundwater monitoring letter from SAIC to PADEP appeared inconclusive with regard to the previously identified increasing trend in chlorinated hydrocarbon concentrations in well MW-13. From the September 2008 sampling event, well MW-13 exhibited a significant decrease in chlorinated hydrocarbons with a total VOC concentration decrease from 547.6 ug/L in March 2008 to 14.33 ug/L in September 2008. The September 2008 total VOC concentration was the lowest exhibited in this well since March 2005. Of the four chlorinated hydrocarbons that exhibited criteria exceedences in March 2008 (DCE, PCE, TCE, and VC) only VC continued to exceed criteria in September 2008 with a concentration of 10.7 ug/L.

The only other well sampled during the September 2008 sampling event that exhibited detectable contaminant concentrations above criteria was ME-DG-9. In ME-DG-9, the benzene

concentration increased from "not detected" in March 2008 to 8 ug/L in September 2008. The September 2008 concentration exceeded the benzene MSC of 5 ug/L for the first time since an 8.6 ug/L benzene concentration was exhibited in ME-DG-9 in September 2006. Furthermore, the benzene detection in September 2008 was the first detection of an analyte since a benzene detection of 3.9 ug/L was detected in the well in April 2007.

The last of the semi-annual groundwater monitoring letters to be included in this EI report was sent from SAIC to PADEP on May 13, 2009. From the analytical results of the March 20, 2009 sampling event presented in the letter, there appears to be no evidence of an identified trend (increasing or decreasing) in chlorinated hydrocarbon concentrations in the six wells being monitored semi-annually. The only trend that was identified from the March 2009 sampling event was of the six wells being monitored (ME-UG-1, ME-UG-2, ME-DG-9, MW-12, MW-13, and MW-14); only well MW-13 continued to exhibit chlorinated concentrations above criteria since September 2004. Although well MW-14 did exhibit a TCE concentration (5.9 ug/L) above criteria in March 2009, the well has been regulatory compliant since September 2006.

From the March 2009 sampling event, well MW-13 exhibited concentrations above criteria for PCE (22.1 ug/L), TCE (24.6 ug/L), and vinyl chloride (3.9 ug/L). Although the PCE and TCE concentrations increased from the previous sampling event (September 2008), the vinyl chloride concentration decreased. Additionally, the total VOC concentration in March 2009 (53.9 ug/L) exhibited an increase from the previous sampling event (14.33 ug/L). With these chlorinated concentrations in March 2009, there does not appear to be a noticeable trend (increasing or decreasing) in contaminant impact in MW-13.

Additional historical information pertaining to the Halls Motor Transit Company/Overnite Trucking Corporation/UPS Freight located west of the former facility was provided by PADEP to Baker in August and December 2008. Investigations and remedial activities for free-phase LNAPL have and continue to occur at the facility; however, it appears that the contaminant impact is limited to the facility.

Inspection

PADEP conducted a hazardous waste inspection on July 17, 1981 noting a training program should be designed and implemented.

On September 22, 1987, PADEP conducted a hazardous waste inspection to investigate a complaint received by PADEP. However, all 20 points mentioned in the correspondence were examined and no justification could be found.

Another hazardous waste inspection was conducted on September 25, 1989, noting an inspection checklist should be created for the permit-by-rule area (Hydrofax), and the hazardous waste drum storage area did not meet the requirements as there were cracks in the floor and one end of the area was not enclosed.

On March 12, 1991, PADEP conducted a hazardous waste inspection noting the facility was in the process of closing. Lids were not properly closed on hazardous waste containers, accumulated waste was present on site without a permit.

C. Description of Exposure Pathways for all Releases or Potential Releases

Air: Prior assessments made no determination as to the estimated population within a three mile radius of the Capitol facility. Available information indicates that approximately 9,042 people lived within the borough of Mechanicsburg, PA as of the 2000 census. However, this number does not reflect the population within a specified radius of the site as portions of other towns' populations may be within the specified radius of the facility.

Groundwater: According the 1989 PA, the site is located in the Great Valley Section of the Valley and Ridge Physiographic Province, which has a broad limestone valley and trellis drainage. The area has been subjected to considerable tectonic stresses, and as a result, the rocks are highly fractured. Groundwater in the area is in unconfined water-table conditions. Groundwater elevations in unconfined conditions tend to mimic surface contours. Shallow groundwater flow in the vicinity of the site can be expected to the south and southwest toward the tributary that flows from the south toward Conodoguinet Creek.

Surface Water: Prior to redevelopment, drainage from the site flowed southwest toward a small intermittent stream, which flows 1.3 miles to the northwest where it discharges to the perennial Conodoguinet Creek. Currently, the site drains to several drainage inlets with discharge to the detention basin at the southwest corner of the site. Reportedly, the portion of the stream adjacent the

NSPCC is fenced to prohibit trespassers. Conodoguinet Creek, used for recreation purposes, flows eastwardly for approximately 16 miles to its confluence with the Susquehanna River.

Soil: According to the 1989 PA, the soil mapped at the site is Urban land and Udorthents. Urban land consists of areas covered with buildings, parking lots, and roads to such an extent that the soils cannot be observed. Udorthents consist of mixed soil and rock material that has been altered by man. Typically, the soil provided is a mixture of rock and soil material.

D. Exposure Pathway Controls and/or Release Controls Instituted at the Facility

Air: The Capitol facility did not have any air permits on record. There have never been any complaints or violations filed with PADEP regarding this media.

In order to effectively evaluate a potential vapor intrusion pathway under current land use conditions (i.e., VOCs present in groundwater adjacent to the current building) using the available site data, the following guidance documents were used:

- USEPA 2002 OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), and
- PADEP Act 2 Land Recycling Program Technical Guidance Manual – Section IV.A.4,Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard

These guidance documents provide current technical and policy recommendations on determining if the vapor intrusion pathway poses an unacceptable risk to human health at cleanup sites. The 2002 USEPA guidance was also created in part to support Current Human Exposures Under Control EI determinations with regard to the vapor intrusion pathway and current land use conditions. It is not intended to provide recommendations for delineating extent of risk or eliminating risk.

The former Capitol facility is currently occupied by a shopping center complex that includes Home Depot, Circuit City, Dick's Sporting Goods, and others. The current land use surrounding the shopping center complex is also either commercial or industrial. There are no residences located above or adjacent to the VOC contaminated groundwater. As such, the exposed populations are either those in an occupational setting (e.g., individuals in a working situation) or those in a non-

residential setting in a non-working situation (e.g., individuals shopping in a store). In order to evaluate a potential vapor intrusion pathway, the Home Depot was used as the point of reference since it is located closest to the known area of contamination. As previously discussed in Section A, six monitoring wells (ME-UG-1, ME-UG-2, ME-DG-9, MW-12, MW-13, and MW-14) are sampled as part of the COA. Available monitoring well construction details and analytical data obtained from a letter from SAIC dated May 28, 2008 for these six monitoring wells were used for evaluation.

It should be noted that the USEPA 2002 guidance is not generally recommended for use in evaluating settings that are primarily occupational. The Occupational Safety and Health Administration (OSHA) and USEPA have agreed that OSHA generally will take the lead role in addressing occupational exposures. Typically, workplaces are subject to a written Hazard Communication and Monitoring Plan. In the case of non-workers in non-residential settings, the guidance can be used. However, adjustments must be made for relevant factors including but not limited to non-residential exposure durations, building-specific air volumes, and air exchange rates. Once these variables are obtained, the model used in the USEPA guidance can be adjusted.

In the case of the Home Depot, these variables were not readily obtainable. Furthermore, there are likely other volatile chemical products sold by Home Depot that would contribute to indoor air exposures. Therefore, in order to complete an evaluation of current indoor air exposures the PADEP Act 2 vapor intrusion guidance was consulted (specifically, Land Recycling Program Technical Guidance Manual – Section IV.A.4, Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard). This guidance provides decision matrices for soil and groundwater (under a Statewide health or generic approach) for determining if indoor air quality is a concern. This guidance can be applied to both residential and nonresidential receptors. For assessing vapor intrusion into a nonresidential building from contaminated groundwater or soil, the initial step is to determine if a complete exposure pathway exists. A potentially complete pathway exists if an inhabited building is within 100 feet of a source horizontally. For a potentially complete pathway, available information must be reviewed to determine if there is at least five feet of soil-like material between impacted groundwater/soil and the foundation of inhabited buildings, the soil-like material is neither a sand or sand-like material, and there are no preferential pathways for vapor to migrate from the soil to groundwater interface to the building foundation. If any of these conditions cannot be verified using available information, then the Johnson & Ettinger (J&E) PA default screening levels should not be used for further evaluation of soil or groundwater data.

Available monitoring well installation details indicate that the depth to bedrock ranges from 5 feet to 33 feet among the six monitoring wells. These monitoring wells are located to the north and south of the Home Depot building. Additionally, information obtained from the July 7, 1995 Investigation of Soil Beneath the Floor Report showed depth to bedrock ranging from 5 feet to 25 feet during post-excavation confirmation soil sampling from beneath the floor of the former Capitol site. However, no information was available indicating the soil type or locations from which the soil samples were collected. As such, adequate information was not available to extrapolate the vertical distance of the foundation of the Home Depot building to bedrock or determine soil type. In addition, the depth of the foundation of the Home Depot is not known. Therefore, since the available information indicates there may be less than five feet between bedrock and the foundation of the Home Depot and soil characteristics are unknown, the PADEP derived values were not used to screen the detected VOCs for potential impact to indoor air.

However, it should be noted that the Home Depot is a large warehouse-style building likely equipped with a ventilation system that provides adequate ventilation, as current operations would be expected to include the use of products containing VOCs. Additionally, work-place exposures would be addressed under OSHA, and non-worker (e.g., individuals shopping at the store) exposures would be minimal. Therefore, based on this rationale, it is concluded that vapor intrusion attributable to groundwater associated with the former Capitol facility is not a potential concern assuming a nonresidential exposure scenario. However, it should be noted that any change in the future use of the building or groundwater analytical information may initiate the need to reevaluate the indoor air pathway.

Groundwater: Two public water companies operate in the area within three miles of the site. However, some homes within the three mile radius maintain private water supply wells. Private supply wells located north of Conodoguinet Creek are 80-300 feet deep with static water levels from 5-120 feet below the ground surface. The Mechanicsburg Water Company (MWC) supplies water to locations within a 3-mile radius of the site. Water is taken from Yellow Breeches Creek, a spring southwest of the site, and a well two miles southwest of the site. MWC has an interconnection with the Pennsylvania American Water Company (PAWC) system, located two miles west of the site. PAWC, formerly Riverton Consolidated Water, takes its water from the Conodoguinet Creek, Yellow Breeches Creek, and two wells several miles southeast of the site beyond the 3-mile radius. The entire system is interconnected with the Dauphin County Water Company.

A COA was established between PADEP and Capitol and Olympic Realty & Development Corporation on January 27, 1995. The document stated contamination exists and remediation activities will meet PADEP Cleanup Standards without threat of further groundwater contamination. The Remediation Work Plan provided for the excavation, bioremediation, and off-site disposal (as necessary) of contaminated soils. The work plan also included monitoring of groundwater and the implementation of remediation in the event monitoring results demonstrate that groundwater quality does not show a decreasing trend in VOC concentrations. The document prohibits use of the groundwater for potable use. An October 23, 2007 semi-annual groundwater monitoring letter identified that increasing trends in the concentrations of chlorinated hydrocarbons were taking place exclusively in monitoring well MW-13. The March 2008 semi-annual groundwater sampling letter to PADEP confirmed MW-13 still exhibited 1,1-DCE, PCE, TCE, and vinyl chloride above their respective MCLs. Historically, the area surrounding the facility exhibits groundwater contamination due to operations. Like the subject facility, investigations and remedial activities are ongoing at many of these facilities.

Per the COA Remediation Work Plan, if during the monitoring period, VOC concentrations in any of the compliance well do not show a decreasing trend (after consideration of seasonal variation), a groundwater remediation assessment will be prepared and submitted to PADEP for approval. Groundwater remediation will be initiated if the assessment demonstrates that remediation will be feasible, taking into consideration the presence of groundwater contamination already existing on adjacent properties from offsite sources. As an increasing trend has not been established from the semi-annual groundwater monitoring, monitoring will continue at the facility.

Surface Water: According to available records, Capitol did not operate under a NPDES permit. Prior to redevelopment, drainage from the site flowed southwest toward a small intermittent stream, which flows 1.3 miles to the northwest where it discharges to the perennial Conodoguinet Creek. Currently, the site drains to several drainage inlets with discharge to the detention basin at the southwest corner of the site. Reportedly, the portion of the stream adjacent the NSPCC is fenced to prohibit trespassers. Conodoguinet Creek, used for recreation purposes, flows eastwardly for approximately 16 miles to its confluence with the Susquehanna River.

Soil: The former facility is located in a commercial area along Carlisle Pike (Route 11). Direct contact with soil is not considered a complete exposure pathway because the area of the former

facility currently consists of commercial retail stores, paved parking lots, and small manicured lawn areas.

E. Follow-up Action Items

Semi-annual groundwater monitoring will continue at the facility under the COA established between PADEP and Capitol and Olympic Realty & Development Corporation on January 27, 1995. USEPA Region III will decide if additional information or sampling at the facility is required to determine whether or not the environmental indicators have been met or if corrective action is required for the facility.

APPENDIX A

Photographs

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **1**	
VIEW **Northwest**	
PHOTOGRAPHS BY **Baker**	

Comments: The former Capitol Products building was demolished and is now the location of a shopping center on Carlisle Pike in Mechanicsburg, PA. View of former Chromium Hydroxide Sludge Storage, SWMU 2.

PHOTOGRAPH **2**	
VIEW **North**	
PHOTOGRAPHS BY **Baker**	

Comments: Likely the former location of the waste water treatment system, SWMU 1. The location of the former empty drum storage area, SWMU 5, is likely within the Dick's Sporting Goods footprint.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **3**	
VIEW **Southwest**	
PHOTOGRAPHS BY **Baker**	

Comments: Likely the location of the former building near the aluminum smelting and casting area.

PHOTOGRAPH **4**	
VIEW **Southeast**	
PHOTOGRAPHS BY **Baker**	

Comments: Eastern edge of the site. Kmart borders the property to the east.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **5**	
VIEW **North**	
PHOTOGRAPHS BY **Baker**	

Comments: Likely the area east of the location of the former pretreatment and coating line. The waste paint/solvent drum storage area, SWMU 3, is likely southeast of this location.

PHOTOGRAPH **6**	
VIEW **Northeast**	
PHOTOGRAPHS BY **Baker**	

Comments: Likely the location of the former paved area east of the extruding process and sodium hydroxide storage tanks, SWMU 4. Commercial uses border the property to the north across Carlisle Pike.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **7**	
VIEW **East**	
PHOTOGRAPHS BY **Baker**	

Comments: Northwestern border of the property. Likely the view of the former paved parking area.

PHOTOGRAPH **8**	
VIEW **West**	
PHOTOGRAPHS BY **Baker**	

Comments: Southwestern border of the property. Overnite Trucking/UPS border the site to the east and southeast.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH

9

VIEW
Northwest

PHOTOGRAPHS BY

Baker

Comments: The In-house well is directly in front of the entrance to Circuit City. This is likely the former location near the die workshop.

PHOTOGRAPH

10

VIEW
Southwest

PHOTOGRAPHS BY

Baker

Comments: ME DG-9 in front of Home Depot, near the western edge of the site.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **11**	
VIEW **Southwest**	
PHOTOGRAPHS BY **Baker**	

Comments: MW-14 near the western border of the site.

PHOTOGRAPH **12**	
VIEW **Southwest**	
PHOTOGRAPHS BY **Baker**	

Comments: MW-13 in a grassy area behind Home Depot, near the southern edge of the site.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **13**	
VIEW **South**	
PHOTOGRAPHS BY **Baker**	

Comments: Fenced-in detention area behind Home Depot, on the southern edge of the property. This area receives all on-site stormwater.

PHOTOGRAPH **14**	
VIEW **South**	
PHOTOGRAPHS BY **Baker**	

Comments: Eastern edge of the detention area. Likely the location of the former closed waste water lagoon.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **15**	
VIEW **Southeast**	
PHOTOGRAPHS BY **Baker**	

Comments: View across the fenced in property border. The site is bordered to the southeast by the Navy Ship Parts Control Center. Likely facing the location of the former closed cooling lagoon.

PHOTOGRAPH **16**	
VIEW **East**	
PHOTOGRAPHS BY **Baker**	

Comments: Southern edge of the property behind Home Depot, east of the detention area.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **17**	
VIEW **East**	
PHOTOGRAPHS BY **Baker**	

Comments: ME UG-2 near the southern border of the property.

PHOTOGRAPH **18**	
VIEW **East**	
PHOTOGRAPHS BY **Baker**	

Comments: MW-12 near the southern edge of site, east of the detention area.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **19**	
VIEW **East**	
PHOTOGRAPHS BY **Baker**	

Comments: Stormwater drain at the southern edge of the property which feeds into the detention area.

PHOTOGRAPH **20**	
VIEW **East**	
PHOTOGRAPHS BY **Baker**	

Comments: ME UG-1 at the southeastern edge of the property.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: Capitol Products Corporation

PHOTOGRAPH **21**	
VIEW **East**	
PHOTOGRAPHS BY **Baker**	

Comments: View of the fenced in grassy area east of the property.

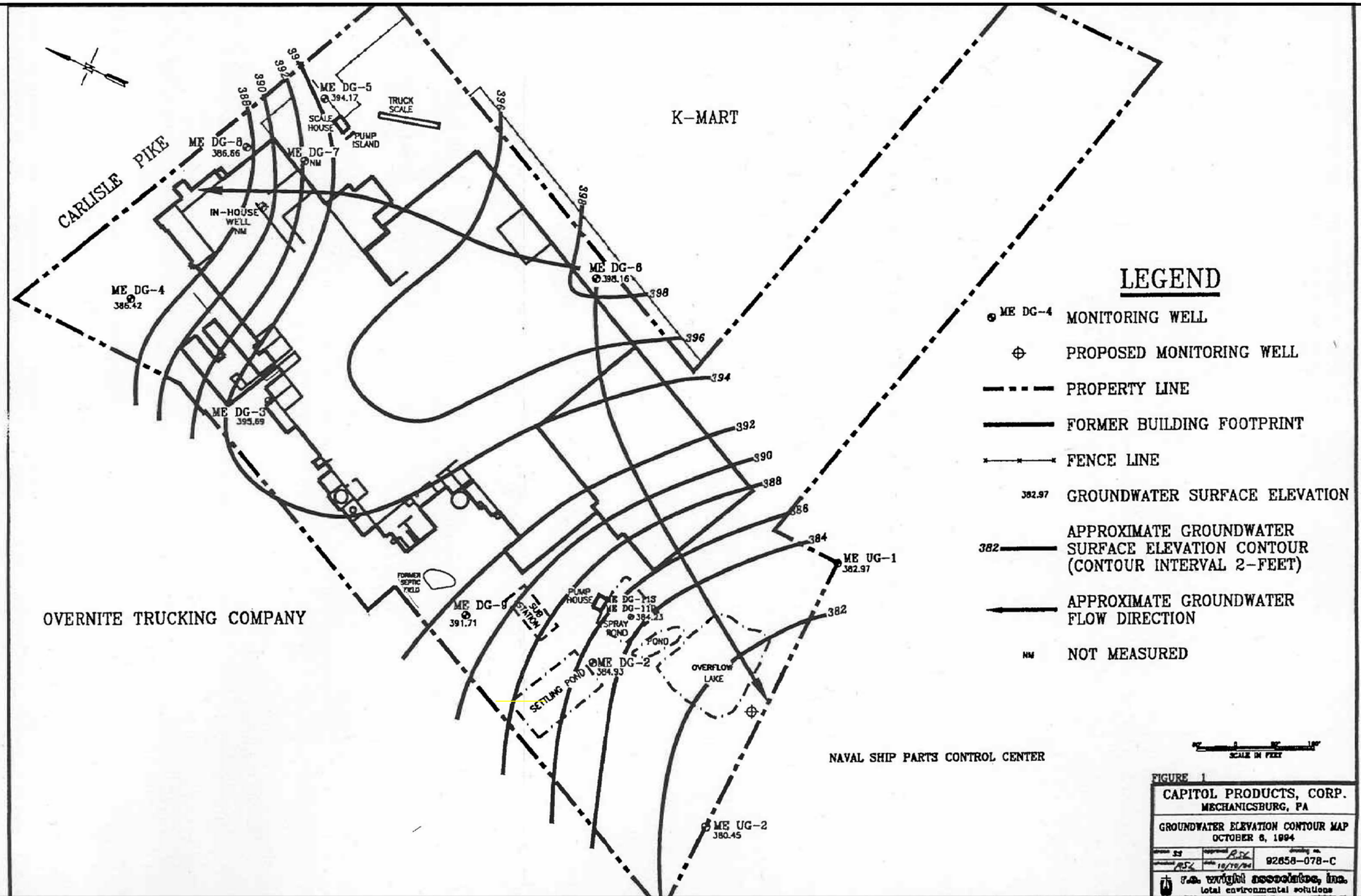
APPENDIX B

Figures

SCALE:	1"=300'	DATE:	September 2007
S.O. NO.:	111102	FILE:	111102CAP01
DSN/DWN:		CHK:	

Baker MICHAEL BAKER Jr., INC.
MOON TOWNSHIP, PENNSYLVANIA

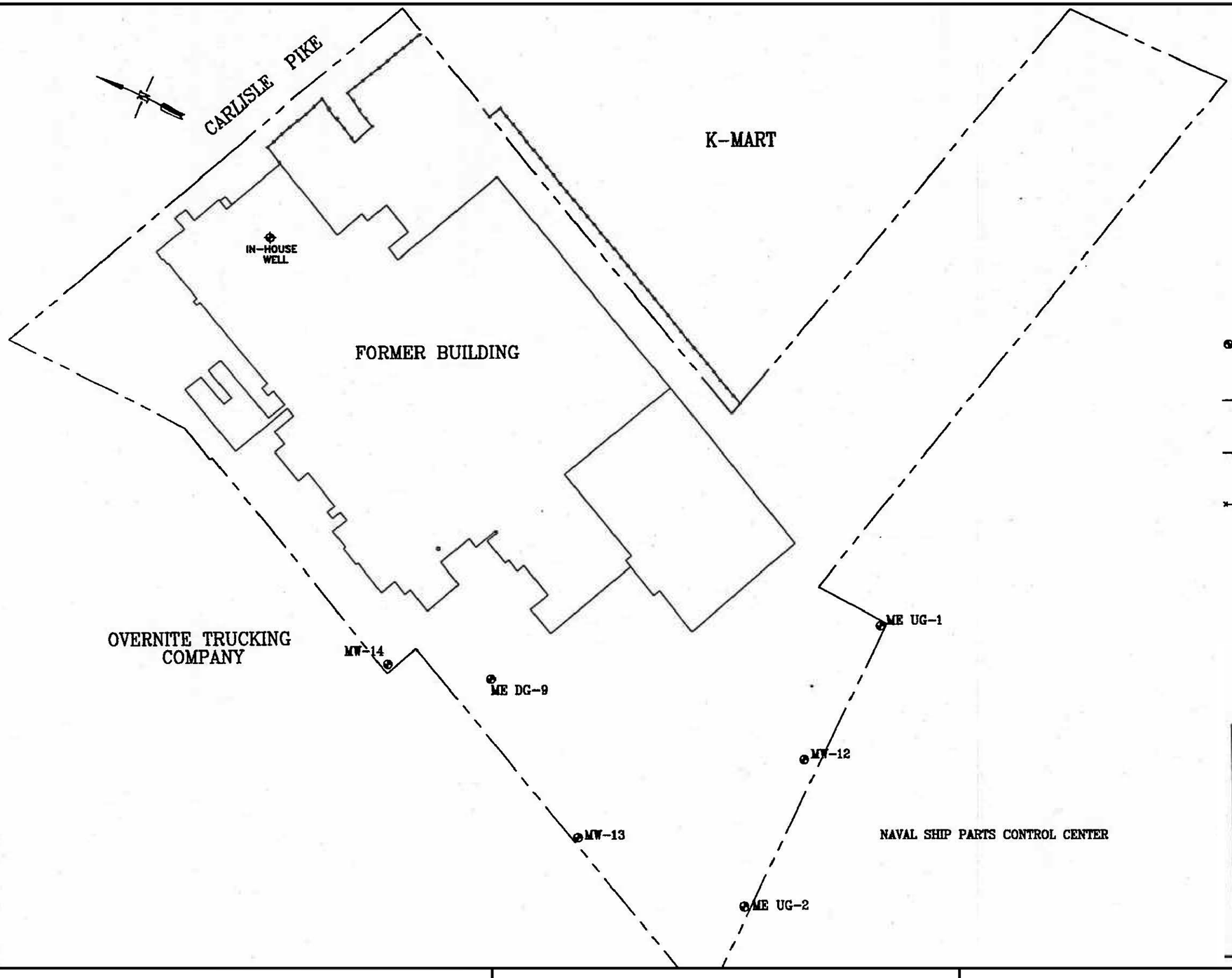
FIGURE 1
SITE LOCATION MAP
FORMER CAPITOL PRODUCTS SITE
MECHANICSBURG, PA



SCALE:	1"=200'	DATE:	MAY 2009
S.O. NO.:	1145160	FILE:	1145160CAP02
DSN/DWN:		CHK:	

Baker MICHAEL BAKER Jr., INC.
MOON TOWNSHIP, PENNSYLVANIA

FIGURE 2
SITE LAYOUT MAP
FORMER CAPITOL PRODUCTS SITE
MECHANICSBURG, PA



LEGEND

- ME DG-2 MONITORING WELL
- PROPERTY LINE
- FORMER BUILDING FOOTPRINT
- FENCE LINE

200' 0 200'

SCALE IN FEET

CAPITOL PRODUCTS, CORP.

MECHANICSBURG, PA

MONITORING WELL LOCATION MAP

drawn RAM	checked	approved	figure no
date 4/01/03	date	date	1
job no. 01-1633-00-1804-000	file no. 1804-001.dwg		

Science Applications International Corporation
An Employee-Owned Company

SCALE:	1"=200'	DATE:	MAY 2009
S.O. NO.:	1145160	FILE:	1145160CAP03
DSN/DWN:		CHK:	

Baker MICHAEL BAKER Jr., INC.
MOON TOWNSHIP, PENNSYLVANIA

FIGURE 3
CURRENT MONITORING WELL LOCATION
FORMER CAPITOL PRODUCTS SITE
MECHANICSBURG, PA

APPENDIX C

Inventory of Documentation and Reference Documents

The following is a list of documents in the order referenced in the report.

Document Date	Document
January 1, 1990	Aerial Site Map
August 8, 1980	Notice of Hazardous Waste Activity
October 9, 1980	USEPA ID Number Issued (PAD 003004405)
November 14, 1980	Submit Part A Hazardous Waste Permit
July 20, 1981	Submit Part A Hazardous Waste Permit approved by USEPA
November 5, 1982	PADEP requests Part B Haz Waste Permit Application
October 3, 1983	Capitol notified PADEP they will not be submitting Part B permit
January 27, 1982	NOV
March 12, 1987	PADEP allows delisting of sludge waste
June 14, 1989	Preliminary Assessment Form
September 29, 1989	Preliminary Assessment Report
June 5, 1990	Consent Assessment of Civil Penalty
February 28, 1991	PPC Plan Submittal
April 12, 1991	NOV
May 22, 1991	Consent Assessment of Civil Penalty
December 6, 1996	Consent Order Legal Descriptions and Deficiencies
January 27, 1995	Consent Order and Agreement
March 1, 1993	Environmental Conditions Summary
March 9, 1993	Environmental Assessment
April 21, 1994	Notice to PADEP of Facility Demolition
July 12, 1994	PADEP Review of Reports and Conclusion
September 2, 1994	Inhouse Well Cross Contamination
September 9, 1994	Chromium Remediation Activities
October 21, 1994	UST Closure Laboratory Results
December 8, 1994	PADEP Closure Report Acknowledgement
September 28, 1994	PADEP/Wright Meeting Summary
September 30, 1994	Waiver to Remove UST
October 3, 1994	Tank Closure Correspondence
October 17, 1994	Sub-slab Soil Removal plan submitted by REWAI
October 19, 1994	Township Denial of Groundwater Purge
November 18, 1994	PCP Evaluation
November 18, 1994	Capitol shallow groundwater VOC impact letter to PADEP
November 22, 1994	Correspondence for Purge Water Disposal
November 29, 1994	Inhouse Well Closure Plan
February 2, 1995	Capitol submits Closure Report for Soil Bioremediation Project

February 16, 1995	Bioremediation Closure Report approved by PADEP
May 2, 1995	Groundwater Monitoring Results Skyport Road and Navy site
July 7, 1995	Soil Investigation Report Vol. I and II
December 13, 1995	Soil Bioremediation Correspondence
February 5, 1996	Capitol submits Modified Soil Screening Protocol to PADEP
February 23, 1996	PADEP accepts the Modified Soil Screening Protocol
July 25, 1996	Groundwater Sampling Results letter
August 20, 1996	Removal of Subsurface Site Improvements Report
November 21, 1996	Debris Shipment and analysis letter from Capitol ('furnace bottoms')
December 24, 1996	PADEP agrees MW-14 reduced monitoring from quarterly to semiannually
May 20, 1997	PADEP agrees ME-DG-9 and MW-13 reduced monitoring from quarterly to semiannually
May 13, 2005	Capitol submits results of first semi-annual groundwater sampling event
November 30, 2006	Capitol submitted results of semi-annual groundwater-sampling event
November 22, 2007	Groundwater Monitoring letter from SAIC
February 15, 2007	Groundwater monitoring frequency reduction request
May 28, 2008	Groundwater Monitoring letter from SAIC; Historical information
November 5, 2008	Groundwater Monitoring letter from SAIC
May 13, 2009	Groundwater Monitoring letter from SAIC
July 17, 1981	Hazardous Waste Inspection
September 22, 1987	Hazardous Waste Inspection
September 25, 1989	Hazardous Waste Inspection
March 12, 1991	Hazardous Waste Inspection