

Project Profiles

Unicorn Management Consultants, LLC
52 Federal Road, Suite 2C
Danbury, CT 06810



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Consultants, LLC

Project Profile
Paoli Non-Rail Yard Site

Description:

Location: Paoli, Pennsylvania

EPA Region III Estimated Value: \$8.0 Million

Contract Value: \$6.0 Million

Actual Value: \$4.0 Million

Client: Penn Central Corporation

Major Activities

- Consulting Services and Negotiation
- Site Characterization
- Remedial Engineering and Design
- Remedial Implementation
- Public Interaction

This federal EPA Superfund site is comprised of the Paoli Rail Yard and a 400 acre watershed associated with the Rail Yard property. Other PRPs were ordered to conduct the work on the Rail Yard property. UMC staff has been involved with investigation and remedial actions on the Non-Rail Yard properties. The Non-Rail Yard property includes a number of residential properties as well as three tributaries and two downstream creeks. Initial work for both the residential properties and the streams focused on review of work conducted under EPA's direction by other consultants. This review was followed by a series of negotiations with EPA and the preparation of two work plans: one to

fully characterize the residential properties of concern and another to gather useful and timely information regarding existing condition of stream sediments. Each work plan included a Design Team and Management Plan, a Sampling and Analysis Plan, requirements for Pre-Design Studies, design criteria assumptions, tentative treatment schemes, a Remedial Design Contingency Plan and a project schedule. A Quality Assurance Program Plan and a Site Specific Health and Safety Plan were submitted with each work plan. The work plans were approved and the investigations were conducted.

The residential pre-design investigation included collection of approximately 1300 soil samples at 44 residential properties. The pre-remedial residential investigation identified the residential properties where the arithmetic property-wide average of PCB concentrations exceeded the 2 ppm performance standard set out in the ROD for the Site.

The investigation for the streams included the collection of approximately 650 samples at 163 stream bed and floodplain locations. This investigation identified the locations in the stream beds and the floodplains where PCB concentrations exceeded 10 ppm (an immediate performance standard for the floodplain areas) or 1 ppm (the performance standard for the stream deposition areas).

UMC subsequently submitted the results of the pre-remedial investigations with Remedial Design Workplans (one for the residential properties and another for the streams). A Construction Quality Assurance Plan, a Site Specific Health and Safety Plan, and a Contingency Plan were developed and submitted with each work plan.

The design documents describe the procedures for the removal of soil and sediment with elevated PCB concentrations from each location, the collection of confirmation samples and the restoration of excavated areas. The documents also discuss how excavated soil and sediment will be transported to the Rail Yard Site Property for staging or disposal (depending upon the PCB concentration).

The EPA has approved the design for the residential portion of the remedy, which is currently being implemented. At the identified properties, soil from designated areas that exhibits PCB concentrations greater than 2 ppm is being removed and transported to the Rail Yard Property owned by AMTRAK for disposal.

Additional work for this project included:

- Negotiation of access agreements with property owners;
- Participation with EPA in public meetings explaining each phase of the project;
- Sampling of fish and invertebrates in the streams per EPA's request;
- Negotiations with the Rail Yard Property PRPs related to soil acceptance and use of the Rail Yard;
- Satisfaction of EPA requirements for subcontractors including laboratories.

Project Profile
Sauer Dump Site

Description: Interim Remedial Action Required by an Administrative Order

Location: Dundalk, Maryland

EPA Estimated Value: \$150,000 - \$200,000

Contract Value: \$135,000

Actual Value: \$100,000

Client: American Premier Underwriters, Inc. and Smurfit-Stone Container Enterprises, Inc.

Major Activities

- Consulting Services and Negotiation
- Preparation of RAP
- Remedial Implementation
- EPA Interaction

Unicorn Management Consultants, LLC (“UMC”) was retained by American Premier Underwriters, Inc. (“APU”) and Smurfit-Stone Container Enterprises, Inc. (SSCE) to implement an Administrative Order for Removal Response Action (“Order”) which was issued by EPA under Section 106 (a) of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9606 (a), on December 8, 2005 to SSCE, APU and Wittstadt Hunting Club, Inc. (“Wittstadt”) relating to the Sauer Dump Site (the “Site”) which is Parcel 425 located adjacent to/behind 4225 Lynhurst Road, Dundalk, Baltimore County, Maryland, 21222.

UMC prepared and submitted a Remedial Action Plan on December 27, 2005 in accordance with paragraph 8.3 of the Order. The RAP was approved by EPA on December 29, 2005. UMC was the site contractor during the implementation of the Order, which was completed in March 2006. The following items were performed:

Protect the public health

In an effort to prevent trespasser access to the Site, UMC installed a six-foot high chain-link fence generally around the perimeter of the Site as shown on Figure 2. The chain-link fence was constructed between January 31 and February 3, 2006. The fence consists of 11 gauge wire fabric with tension wires on the top and bottom to prevent trespassers from lifting or folding the wire fabric to gain access. A double-door swing gate (16 feet wide) was installed along the north-east section and another double-door swing gate (16 feet wide) was installed along the south section (adjacent to Back River). The location of fencing is within the Site boundaries (Parcel 425) and does not enclose the miscellaneous items (e.g., cars and storage vessels) that have been placed at the north end of the Site by adjacent property owners. Aluminum signs that state, “Danger Unauthorized Personnel Keep Out” have been placed every 30 feet along the fence fabric and on each swing gate.

Protect the Shoreline

In an effort to protect the shoreline from erosion, UMC installed Coir Logs along the banks of the Back River along the southern side of the Site. On February 2 and February 6, approximately 200 linear feet of Coir Logs were installed along the meandering river's edge against the standing phragmite vegetation as shown on Figure 2. Figure 3 provides a detailed illustration of its installation. All logs were secured with 5 and 6 foot stakes which were driven every 3 feet on each side of the coir logs. The stakes were then notched and cotton twine was used to further secure the logs. As discussed at the December 22, 2005 meeting, the existing phragmite vegetation has securely anchored the shoreline and disruption to that vegetation would only increase erosion potential.

Mitigate Further Erosion

In an effort to prevent erosion and migration of material from the 6000 square-foot Hot Spot Area as identified by EPA during the December 22, 2005 site visit and shown on Figure 2, on February 1 and 2, 2006, UMC regraded and covered the area with 6 milli-inch nylon reinforced UV protective polyethylene sheeting. First, the area was graded using a backhoe to allow for proper coverage by the sheeting. During the regrading activities, no containers (e.g., drum or transformer) were discovered. All debris encountered in the Hot Spot Area during regrading activities that would hinder the placement of the sheeting were decontaminated in place using a pressure washer. Decontamination water was allowed to percolate into the ground. After decontamination procedures were completed, UMC placed all decontaminated debris items recovered to the area immediately adjacent to the Hot Spot Area. Following grading activities, the backhoe was decontaminated with the pressure washer within the hot spot area.

After regrading the hot spot area, UMC placed 6 milli-inch thick nylon-reinforced polyethylene sheeting over the 6,000 square-foot area. To help keep the sheeting in place during heavy winds, approximately 130 sand bags were placed at a spacing of one bag every 10 feet along its width and every 20 feet along its length, with the bags placed along the seams and edges of the sheeting. Also, to discourage trespassers from removing the sheeting, UMC placed two (2) large concrete pipes on the sheeting.

Provide and Follow Site Specific Health and Safety Measures

The site-specific Health and Safety Plan (HASP) was followed for the RAP activities. The HASP, which is an appendix of the RAP, was prepared in accordance with 29 CFR § 1910.120 to protect the health and safety of workers, other personnel and the public from the hazardous material and work-related hazards.

Develop and follow an expeditious schedule to implement the RAP

UMC has followed the project schedule in the RAP. Attachment C includes the project schedule for this response action modified to reflect the actual initiation and completion dates of each task. Factors that could have affected the project schedule (i.e., extreme weather) were not encountered.

Project Profile

Union Road

Description: Remedial Design and Implementation

Location: Cheektowaga, NY

NYSDEC Estimated Value: \$14.0 Million

Contract Value: \$10.0 Million

Actual Value: \$7.0 Million

Client: The Penn Central Corporation

Major Activities

- Remedial Engineering and Design
- Environmental Remediation

In support of the PRP for this New York State Superfund site, reports prepared by a NYSDEC contractor were reviewed. These reports included the Remedial Investigation report, the Human Health Risk Assessment report, the Environmental Assessment report, the Feasibility Study report, the Conceptual Design report and the Proposed Remedial Action Plan.

As a result of our review of these documents, a Remedial Action Work Plan was submitted and negotiations with the NYSDEC concerning the involvement of the PRP in this site and the extent of remedial action required began. Technical assistance was also provided to project counsel regarding negotiation of a Consent Order for the site.

The tasks identified in the Remedial Action Work Plan were implemented and the final engineering design plans and specifications were prepared for the site. The Remedial Action Work Plan included the following:

- Containment Area Design
- Stream Restoration Design
- Construction Management Plan
- Health and Safety Plan
- Clearing and Grubbing Plan
- Contingency Plan
- Erosion Control Plan
- Soil Cover and Revegetation Plan
- Vegetation Screening Plan
- Operation and Maintenance Plan
- Quality Assurance Program Plan
- Dewatering Plan

The Plans and Technical Specifications included the following:

- Contractual requirements for the Contractor;
- Payment Term;
- Temporary Utilities;
- Erosion Control;
- Dust Control;
- Project Close-out;
- Engineering and Survey Control;
- Monitoring Well Abandonment;
- Monitoring Well Construction;

- Clearing and Grubbing;
- Earth Work (excavation of Hazardous Material);
- Construction of a 2000 linear foot slurry cutoff trench;
- Gas collection and migration system;
- Groundwater Dewatering System;
- Installation of Geocomposite and High Density Polyethylene Liners over the 8 acre landfill;
- Turf establishment and Surface restoration;
- Chain-Link Fencing; and
- Excavation of Stream Sediments and Stream Restoration (placement of rip rap in a 2,000 foot section of a creek).

In addition, the following tasks were performed during the construction phase at this site:

- Scheduling various Contractor to perform the work;
- Review and approval of Contractor Invoices;
- Tracking Expenditures against the Project Budget;
- Organize and attend monthly meetings with Contractors and NYSDEC Representatives;
- Coordination and contact with local residents;
- Inspection for compliance of Plans and Technical Specifications;
- Soil verification Sampling;
- Air Monitoring;
- Record Keeping;
- Shop Drawing Review and Approval;
- Change Order Review and Approval for Field Changes; and
- Preparation of As-built drawings.

Project Profile

Sperry Rail Services, Inc.

Description: Site Investigation/Feasibility Study/ Remediation

Location: Danbury, Connecticut

Contract Value: \$300,000

Clients: Penn Central Corporation, Great American Insurance Company

Major Activities

- Site Characterization
- Hydrogeological Investigation
- Remedial Engineering and Design
- Environmental Remediation
- Risk Assessment
- Environmental Compliance Audits
- Phase I Site Assessment

Several different types of services have been provided at the Sperry Rail Services site. Environmental Management Audits have been conducted to evaluate compliance with federal, state and local environmental regulations. The scope of these audits have included evaluations related to compliance with RCRA, CAA, CWA, TSCA, OPA, EPCRA, state equivalent regulations and Danbury codes related to these issues.

The audits revealed the presence of a former drywell at the site. Investigative activities related to this dry well indicated the presence of groundwater contaminated with chlorinated solvents. Soil and groundwater sampling was conducted to define the extent of the contamination. A Feasibility Study was then conducted which identified Air Sparging and soil vapor extraction as the preferred remedial

technologies. A pilot test was conducted, the system was installed and operated until satisfactory removals were achieved.

Investigations at the site have also included a Phase I Environmental Site Assessment in accordance with the Connecticut Transfer Act Regulations. This assessment covered the entire property where the Sperry facility resides.

Other investigations include a Phase II Site Assessment and associated hydrogeological investigations. These investigations have revealed the presence of arsenic along the rail lines at the site from application of pesticides/herbicides in the 1960s. The presence of PCBs at levels exceeding the allowable concentrations was also identified in and around an indoor service pit at the site. Risk Assessments were conducted to identify potential risk of exposure to workers for both of these areas of concern.

Additional work related to the PCB contamination includes delineation of the vertical and horizontal extent of contamination, preparation of notice documents for CTDEP and EPA, cost estimations, and alternative analysis. Oversight will be provided during the remedial phase of the project.

Project Profile
General Cable Company

Description: PCB Remediation

Location: St. Louis, Missouri

Contract Value: \$50,000

Major Activities

- Vacu-blasting Pilot Study
- PCB Remediation

An inspection of this facility was conducted in which improper removal of PCB transformers resulted in PCB contamination being tracked throughout the facility, which encompasses approximately 285,000 square feet over four floors. PCB contamination was also present in the transformer yard.

A pilot test was conducted on 85,000 square feet to evaluate the effectiveness of remediation via vacu-blasting. This is a dry remedial technique which is preferred over wet techniques (e.g., wash and scrub) because it minimizes the spread of contamination and generates a waste form that is readily acceptable for disposal without further processing.

The results of the pilot test indicated that the proposed remedial method was able to meet the USEPA PCB Spill Cleanup Policy guidelines in a cost-effective manner. The results of the pilot test were presented in a report submitted to the USEPA in order to obtain approval to proceed with full-scale remediation throughout the remainder of the facility.

Specific responsibilities included:

- Collection of pre- and post-remediation wipe, concrete chip and core samples for analysis of PCBs;
- Development of a Health and Safety Plan;
- Air monitoring during remediation pilot test;
- Mobilization and management of field crews and equipment
- Waste handling, storage and arrangement for disposal; and
- Submission of Remediation Work Plan to the USEPA.

Project Profile

Fox Point Park

Description: Industrial Landfill, Delaware State Superfund Site

Location: Wilmington, DE

Contract Value: \$270,000

Client: PRP Group (City Of Wilmington, New Castle County,
and American Premier Underwriters, Inc.)

Major Activities

- RI/FS Workplan
- Remedial Investigation
- Risk Assessment
- Feasibility Study

A Remedial Investigation/Feasibility Study (RI/FS) was conducted at this State of Delaware “Superfund” Site under the auspices of the Delaware Hazardous Substance Cleanup Act. The site comprises 60 acres of mostly “made land” along the Delaware River. The site was used for disposal of river channel dredgings, steel industry wastes and sewages sludge.

Specific responsibilities have included:

- providing technical support for determination of fair cost allocation among PRP group;
- providing technical support for PRP group during negotiation of Consent Order;
- preparation of Remedial Investigation/Feasibility Study Workplan that was acceptable to Delaware Department of Natural Resources and Environmental Control;
- an extensive surface soil sampling program to characterize contamination at the near surface;
- a soil boring program to delineate the extent of contaminated fill materials;
- sampling of sediment and surface water to determine impact of contaminated fill materials on the Delaware River;
- on-site analysis of 140 samples for PCBs and PAHs using immunoassay technology;
- validation of laboratory data; and
- preparation of the Remedial Investigation Report.

Project Profile

Diversified Contractors, Inc.

Description: Remedial Investigation and Feasibility Study

Location: Houston, Texas

Contract Value: \$100,000

Major Activities

- Site Characterization
- Remedial Engineering and Design
- Waste Management

Phase II and Phase III environmental assessments were conducted at this abandoned 18 acre former manufacturing facility. Specific responsibilities included:

- An extensive soil boring program to delineate the extent of lead contaminated fill materials;
- A Feasibility Study for 10,000 cubic yards of lead contaminated fill. Remedial measures evaluated include various types of caps, fixation/solidification and excavation/off-site disposal or incineration;
- Installation of monitoring wells and groundwater sampling to determine the impact of lead contaminated fill materials on groundwater;
- Investigation and inventory of various 55-gallon drums and other containers left on site;
- Volume estimation and sampling of hydrocarbon stained soils;
- Investigation and sampling of a previously unknown underground storage tank; and
- An asbestos survey of the 18 buildings on site.

The Feasibility Study included the following items:

- Discussions with remediation contractors to obtain cost estimates;
- Conceptual designs of various cap types to obtain quantity estimates for comparison of costs; and
- Discussion of relative advantages and disadvantages of each alternate, including likelihood of acceptance by the state regulatory agency.

Notification of the presence of hazardous waste on the site was made to the Texas Water Commission (TWC). Upon receipt of a response from the TWC, a decision will be made regarding remedial activities to be conducted. Subsequent to the notification to the TWC, project counsel was assisted in evaluating the impact to this project of new TWC site cleanup regulations.

Project Profile

Buckeye Pipeline Company, L.P.

Description: Site Characterization and Remediation

Location: Linden, New Jersey

Contract Value: \$1.5 Million

Major Activities

- Site Characterization
- Hydrogeological Investigation
- Remedial Engineering and Design
- Environmental Remediation
- Waste Management

This 100 acre site is a distribution terminal for gasoline, turbine fuel, diesel and fuel oil. It contains 45 aboveground storage tanks and associated piping, handling and transfer appurtenances. A Phase III investigation was conducted which included the following tasks:

- Installed 3 new deep and 6 new shallow wells and sampled a total of 35 monitoring wells;
 - Operated field laboratory for analysis of benzene, toluene and xylenes via gas chromatography and total petroleum hydrocarbons via a modified version of USEPA method 418.1;
- drilled over 300 borings and analyzed approximately 500 samples in the field lab;
 - compared analytical data to site soil and groundwater cleanup levels;
 - delineated the extent of free product and soil contamination throughout the site;
 - conducted free product monitoring and removal from monitoring wells and recovery pits via hand bailing and use of a vac truck;
 - investigated various other site features such as drainage swales, oil/water separator, etc. via sampling, integrity testing and visual inspections; and
 - waste classification and disposal for excavated soils.

Upon completion of field activities, a Phase III Results Report and a Site Cleanup Plan were prepared and submitted to the New Jersey Department of Environmental Protection (NJDEP). The submission included the following elements:

- results of all data generated during site investigation activities;
- conclusions and recommendations regarding the extent and source(s) of contamination;
- design specifications for construction of a free product recovery system, including groundwater modeling to evaluate recovery options and selection of recovery equipment; and
- determination of contaminated soil volumes, evaluation of remedial options and cost estimates;

Since the submission was made, a free product recovery system was installed with additional monitoring wells. This system has been operated and additional groundwater sampling has been conducted. In addition, further soil sampling and contamination delineation has been completed to support establishment of a proposed Declaration of Environmental Restriction (DER) in lieu of actual soil remediation.

Project Profile

Buckeye Pipeline Company, L.P.

Description: Site Characterization and Remediation

Location: Flemington, New Jersey

Contract Value: \$350,000

Major Activities

- Site Characterization
- Hydrogeological Investigation
- Remedial Engineering and Design
- Environmental Remediation

The site is a leasehold within a larger petroleum terminal owned and formerly operated by another company. The site was used to deliver petroleum products into the terminal and to filter, sample and meter those deliveries. The terminal and the surrounding area have documented sources of groundwater contamination with chlorinated solvents. Both chlorinated and petroleum related compounds have been detected in groundwater on and immediately adjacent to the leasehold.

Management of this project was assumed after completion of site investigation activities. The following tasks were performed:

- on-site management of excavation of approximately 300 cubic yards of soil, including oversight of subcontractors;
- field screening of excavation boundaries to assess compliance with cleanup levels collection of post-excavation samples and submission for lab analysis; and
- preparation and submission of Soil Cleanup Activities Report to the New Jersey Department of Environmental Protection (NJDEP).

The following tasks related to site groundwater were also performed:

- worked with vacuum extraction vendor to design a remedial system;
- submitted a Groundwater Cleanup Plan to the NJDEP, including design drawings, operations and maintenance criteria and cost estimates;
- prepared and submitted to the NJDEP discharge to air and water permits required for operation of the remedial system; and
- quarterly groundwater sampling.

Based on groundwater monitoring data and other site activities, the NJDEP decided that active remediation was not required at the leasehold. UMC is continuing to conduct quarterly groundwater monitoring.

Project Profile

Chiquita Brands International

Description: Environmental Compliance Program

Location: Midwestern and Pacific Northwestern States

Contract Value: \$350,000

Major Activities

- EH&S Audits
- Environmental Database Development and Management
- Development of a Corporate Environmental Compliance Manual and Site Specific Compliance Manuals

An Environmental Compliance Program was developed for a group of 37 food processing facilities owned by Chiquita Brands International. This program includes provision of Environmental Compliance Audits at each facility. The scope of these audits includes compliance with state and federal environmental regulations including RCRA, CAA, CWA, OPA, EPCRA, and FIFRA.

The audits provide baseline information for compilation of an Environmental Management Database. A customized database has been created that stores the following information about each facility:

- General information including address, contact people, and SIC code; as well as basic compliance information such as the presence of USTs and EPCRA submission requirements;
- Permit information including a list of all permits and permit conditions, a list of all permitted sources, required monitoring and parameters, and tracking of issuance, expiration and renewal dates;
- Audit information including a description of each finding and action needed, dates for completion of each audit finding, status of each finding, individuals responsible for taking the actions, and the costs of resolving the findings;
- A list of environmental incidents that have occurred which can include releases, receipt of Notices of Violation, etc. and the status of each incidence;
- A calendar of items to be completed for each facility linked to the audit and permit information to provide a comprehensive list of environmental items needed for the site; a
- Water sampling data for each facility, which can be printed onto a federal DMR for submission to those agencies accepting this form.

This database is designed for use by both the operations and organizational sides of the business. It assists the operations staff in ensuring that all required actions are taken and allows the corporate and legal staff to keep abreast of issues and budgetary needs.

A corporate environmental compliance manual was prepared providing general information about federal environmental regulations and specific information about how these regulations apply to the food processing industry. Site Specific Compliance Manuals are being developed to assist new staff in complying with environmental requirements at each facility.