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Division of Environmental Conservation

**REMEDIAL ACTION PLAN**

B. Millens Sons, Inc.  
230 East Strand  
Kingston, Ulster County, New York

March 22, 2006

**DT CONSULTING SERVICES, INC.**

1291 Old Post Road  
Ulster Park, New York 12487  
(845) 658-3484 phone/(845) 658-3320 fax  
dtconsulting@hvc.rr.com

March 22, 2006

B. Millens Sons, Inc.  
**ATT: Sam Millens**  
290 E. Strand  
Post Office Box 1940  
Kingston, New York 12402

**RE: REMEDIAL ACTION PLAN**  
B. Millens Sons, Inc.  
230 East Strand  
Kingston, Ulster County, New York

**NYSDEC Spill No. 96-04764**  
**Order on Consent Number W3-0817-98-08**

Dear Mr. Millens:

Pursuant to your request for a Remedial Action Plan or RAP to be generated for the above referenced facility, DT Consulting Services, Inc. (DTCS) is pleased to submit the following report for your review. As necessary, a copy of this document has been forwarded to the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) for regulatory review, comment and approval.

If you should have any questions regarding the enclosed, please feel free to contact me at (845) 658-3484. DTCS thanks you for the opportunity to work with you on this project.

Sincerely,  
**DT CONSULTING SERVICES**

Deborah J. Thompson  
Senior Geologist / Project Manager

Cc: B. Brown/NYSDEC  
B. Callaghan/NYSDOH

**REMEDIAL ACTION PLAN**

**Pertaining to:**

B. Millens Sons, Inc.  
230 East Strand  
Kingston, Ulster County, New York

**Prepared for:**

Sam Millens  
B. Millens Sons, Inc.  
290 East Strand  
Post Office Box 1940  
Kingston, New York 12402

**Prepared by:**

Ms. Deborah J. Thompson  
Senior Geologist/Project Manager  
**DT CONSULTING SERVICES, INC.**  
1291 Old Post Road  
Ulster Park, New York 12487

**Date:** March 22, 2006

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## DT CONSULTING SERVICES, INC.

### 1.0 SITE INFORMATION/PURPOSE

DT Consulting Services, Inc. (DTCS) has been retained by B. Millens Sons, Inc. to generate a Remedial Action Plan or RAP on the property currently known as B. Millens & Sons, Inc. located at 230 East Strand, Kingston, Ulster County, New York (heretofore referenced as the site or subject property). The property has historically been utilized to conduct operations associated with the recycling of ferrous metals and associated materials. A site location map and a site (base) plan (Figures 1 and 2, respectively) are included for your reference.

Located in an industrialized area of Kingston's East Strand district, the documented  $\pm 1.711$  acre lot is improved with an approximate 4,800 square foot brick building which is presently employed for non-ferrous operations and office facilities. The site is bounded by multi-family residential property to the north, a active railroad ROW, a natural gas distribution facility and boat launch to the south, commercial property to the east, while a major oil storage facility (including tanks and distribution equipment) lies to the west of the subject property. Site topography is generally level, with a slight downward slope to the southeast towards the Roundout Creek. Municipal potable water and sewer services are employed on site as well as on surrounding properties. Groundwater supply wells are not known to be present at the facility or on nearby parcels.

In order to satisfy the requirements set forth in the New York State Department of Environmental Conservation (NYSDEC) Order on Consent #W3-0817-98-08, a Remedial Investigation/Feasibility Study (RI/FS) has been conducted on the facility to document subsurface conditions and present evaluations on remedial alternatives. At the completion of the RI/FS, associated field work and analytical testing, several remedial methodologies which could be utilized at the facility to address the identified contaminated media were developed. Upon further exchange of ideas with the NYSDEC, a RAP was to be generated for the site so as to initiate remediation while allowing for the continued operation of the recycling center. Therefore, cleanup procedures conducted on the subject parcel will be implemented by employing a segmented approach; mostly likely the subject parcel will be divided into six-(6) sections or areas so that remediation and normal operating procedures can occur simultaneously. As such, the specific purpose of this RAP is to provide a plan of action to remediate the petroleum impacted soil matrix historically identified within the north and southeastern quadrants of the subject property (see Figure 3 for locations). This subject area has housed the automobile crushing apparatus and petroleum bulk storage (PBS) tanks utilized during operational procedures at the facility. As remediation progresses across the site, updates to this RAP will be submitted to address a specific area slotted for remediation based upon field observations, construction activities and laboratory analysis. Modifications to this RAP will be submitted to the NYSDEC within thirty-(30) days after completion of the remedial work specified in the previous RAP.

*Remedial Action Plan*  
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In addition to addressing on-site environmental issues; observations and confirmatory laboratory analysis generated while executing this RAP along the perimeter of the subject property may dictate the need to perform off-site assessments. Such assessments may include, but are not limited to, continued quarterly groundwater monitoring on and surrounding the perimeter of the site, initial soil characterization on the adjacent parcel owned and operated by B. Millens Sons, Inc. and/or off-site remedial action. Quarterly groundwater monitoring as performed both prior and subsequent to the execution of this RAP will provide data so as to document the downward trend of dissolved phase contaminants as the source material is removed from the subject property.

### 1.1 *Background Information/Previous Environmental Reporting*

According to current management on site, the improved ±1.711 acre facility has been utilized as a metal recycling center for more than fifty years. Activities associated with the operation and maintenance of the site primarily include the separation of ferrous and nonferrous metal for eventual recycling. Most areas of the property have been employed for stockpiling, sorting and/or storage of various metals based upon the documented use of the recycling facility.

As previously reported, vehicle crushing operations have traditionally occurred within eastern quadrant of the facility. Automobiles were brought to the site through the gate on North Street (which runs parallel to the eastern property boundary), drained of fluids adjacent to this entryway while associated wastes were temporarily stored in aboveground storage tanks (AST's) for future off-site disposal. Vehicles free of fluids were then stockpiled along side the present location of the car crusher (see **Figure 2**).

Previous environmental reporting, including a RI/FS, along with various Groundwater Sampling Events has been performed on the subject property from 1998 to April 2005 by Ecosystem Strategies, Inc. (Ecosystems). According to Ecosystems whom conducted the audits, recommendations of preferred remedial alternatives included a combination of site intrusive and in-situ remediation along with continued groundwater monitoring. Ultimately in June 2005, DTCS began correspondence with the NYSDEC - Division of Environmental Remediation and the New York State Department of Health (NYSDOH) on design modifications for remedial action at the B. Millens Sons facility. Subsequent site meetings and correspondence lead to the development of this RAP and pilot project which will serve as a basis for remediation throughout the remaining areas of the site.

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B. Millens Sons, Inc.

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## 2.0 CONCEPTUAL REMEDIAL ACTION PLAN

In order to remediate documented soil impacts in the general area of the car crushing/fluids management area (north and southeast quadrants of the facility), DTCS developed a conceptual remedial design plan for the review and approval of the NYSDEC. Note that all field work conducted during the implementation of this RAP will be completed by contractors certified to work on hazardous waste sites per Occupational Safety and Health Administration (OSHA) regulation 29CFR 1910.120. The proposed remedial and post remedial construction sequence to be employed within these areas includes:

1. Excavation, staging, testing and off-site disposal of impacted source materials in the unsaturated zone.
2. Backfill as necessary, followed by the installation of a Claymax® LC or equivalent Liner System to provide an impermeable secondary containment layer beneath the proposed concrete pad work area(s).
3. Installation of a 125'x 75' concrete pad and drainage system in both the northeast and southeastern quadrants of the facility to retain and channel storm water run-off within the work areas.
4. Installation and maintenance of a storm water holding and treatment system in the northeastern section of the site to capture, process and discharge run-off from the capped work areas.

### 2.1 Remedial Application – Source Removal

Extensive investigative and soil sampling events performed in August 2005 by DTCS revealed the presence of subsurface soil contamination within areas directly downgradient of the crusher/vehicle storage area on the subject property. Technical data generated during this investigation revealed elevated concentrations of targeted compounds, namely volatile organic compounds or VOC's, within a relatively small area of the unsaturated zone (downgradient of the vehicle storage area). Samples which were able to be collected from the saturated portion of the soil horizon (on account of resistance encountered due to the presence of concrete masses employed for fill) displayed low or non-detect concentrations of contaminants; indicating that the vertical migration of contaminants is limited to the unsaturated and smear zones. Presented in **Attachment A** for your review is a sample location map and data summary of the August 2005 investigative effort. Taking into account the most recent field and laboratory data, DTCS is recommending excavation, staging and off-site disposal of impacted materials which exceed NYSDEC Soil Quality Guidance Standards as referenced in TAGMS #4046.

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While conducting remedial efforts at the facility, a site specific Health and Safety Plan (HASP) along with a Community Air Monitoring Plan (CAMP) will be utilized to ensure a level of protection to both on-site workers and the downwind community respectively. Copies of the HASP (**Attachment B**) and the CAMP (**Attachment C**) are provided for your review and approval.

### 2.1.1 Excavation/Field Screening Activities

During this stage of the remediation project, impacted soils will be targeted for disposal from the northeast and southeast quadrants of the facility (see **Figure 3** for locations). DTCS would like to initiate remedial efforts beginning within the southeastern quadrant of the facility. Prior to commencing site work, all recycling materials will be removed and a magnet would be utilized to draw fine ferrous metal products from the surface. Collected objects would subsequently be placed in their appropriate staging areas on site. Soil excavation could then continue with the use of heavy equipment (i.e. excavator, backhoe) to scoop materials for temporary staging on-site. Excavated materials would be field screened with a photoionization detector or PID for the presence of volatile organic compounds (VOC's). As most petroleum products contain VOC's, PID screening can indicate the presence of volatile organics in a soil sample. Soils displaying obvious signs of petroleum impacts (contamination) and/or a positive PID reading of  $\pm 25$  parts per million (ppm) or greater will be staged for future off-site disposal. To the extent possible, any debris greater than three-(3) inches in diameter will be segregated from the soil and placed in an appropriate area for future recycling. Earth moving will continue until:

1. No visual or olfactory impacts are detected,
2. PID readings diminish,
3. The groundwater table is encountered,
4. The property boundary is reached, and/or
5. Confirmatory soil quality sampling (as specified in Section 2.1.3 below) with the site boundary meets regulatory requirements.

To provide a contingency in the event groundwater seeps into the excavation to the extent that the infiltrating liquid matrix exceeds the holding capacity of the opened area, absorbent booms and pads will immediately be available and utilized to cordon off flow surrounding the excavation. This hydrophobic boom/pad material will allow for the absorption of any visible petroleum sheen (if encountered). In addition to the protocol as described above, excavation of contaminated on-site media would cease until a frac-tank could be mobilized to the facility and all the proper permitting for its use was obtained.



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If contamination is detected beyond the property boundaries while utilizing field methods as described above and confirmed during laboratory testing, DTCS will immediately address said contamination in a separate work document. Prior to initiating any off-site work, an approved work plan and all proper permitting will be obtained by DTCS.

The targeted section to be included during this remedial effort is an area 125' x 80' (see **Figure 3** for reference). A 5' overlap is recommended to ensure soil remediation beyond the proposed footprint of the concrete pad work area is complete. To prevent potential lateral migration of contamination in the event that field observations and confirmatory sampling identify targeted constituents beyond the treatment area, an appropriate barrier would be installed to block any horizontal migration back onto a remediated area. Construction and installation of said barrier is dependant upon field conditions and thus will be reported to and approved by the NYSDEC prior to completion on-site.

At the conclusion of soil excavation, sampling, backfill and associated construction (liner and pad installation) procedures, the automobile crusher and evacuated AST's will be transferred to the southeastern quadrant of the facility so that excavation activities as described above can be performed within the northeastern section of the site. The purpose of completing mirrored activities in each section of the facility is that both locations could be utilized for processing and fluid storage as deemed necessary by facility personnel.

### **2.1.2 Soil Staging and Off-site Disposal**

All impacted materials removed from the subsurface will be placed on poly sheeting and covered in a select location on-site. The precise area to be utilized during the stockpiling of contaminated materials will be dependant upon available space within the yard at the time the work is performed. Petroleum contaminated soils collected during this remedial effort are slated to be transported and disposed of in accordance to all local, state and federal regulations. Note that trailers employed during the staging and/or transporting of impacted materials for off-site disposal will be decontaminated by directing the vehicle through gravel "wet pads" and hosing the tires with water within the facility (as necessary) to ensure sediment is not tracked onto municipal roadways. To serve as an additional precautionary measure, a skid-steer with a sweeper attachment will be utilized as required along surrounding vehicular corridors. Visual observations will be made throughout each work day to assess the need to sweep described pathways. Any collected sediment will be re-deposited at a select location within the subject site. As outlined in 6 NYCRR Part 360-1.7(b)(4), the on-site staging of petroleum contaminated soils will not exceed the 60-day timeframe. Associated waste manifests will be maintained and submitted to the NYSDEC as part of the RAP closure documentation.

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### 2.1.3 Soil Sampling and Analysis

Upon the removal of impacted materials, soil testing will be conducted pursuant to the requirements of DER-10 and STARS #1 "Petroleum Contaminated Soil Guidance Policy." Analysis will be performed by a NYSDOH ELAP certified laboratory utilizing gas chromatography methods. Post-remediation sample locations and depth will be biased towards the areas and depths of highest contamination identified during previous sampling episodes unless field indicators such as field instrument measurements or visual contamination identified during the remedial action indicate that other locations and depths may be more heavily contaminated. At a minimum, the following sampling protocol will be utilized (unless field observations indicate additional samples warrant analysis to completely define subsurface conditions):

- One sample from the top of each sidewall for every 30 linear feet of sidewall and
- One sample from the excavation bottom for every 900 square feet of bottom area.

Analytical testing of each sample will include the Target Compound List (TCL) of VOC, semi-volatile organic compounds (SVOC), Target Analyte List (TAL) Metals and Polychlorinated Biphenyl's (PCBs) via EPA test methods 8260, 8270 B/N, 6010/7471 and 8082 respectively.

### 2.1.4 Reporting

Upon completion of field work and receipt of laboratory analysis, DTCS will generate a written report detailing remedial efforts on the subject property. Included in the closure documents would be the following information:

- Executive summary
- Purpose
- Site description and history
- Summary of executed remedial procedures
- Summary of laboratory analysis
- Summary of monitoring data as gathered with approved CAMP
- Summary of soil manifesting, transportation and disposal operations; along with fully executed manifests documenting off-site transport of waste material.

## DT CONSULTING SERVICES, INC.

- "As-built" drawings, which would entail permanent structures including, treatment units, piping and other remedial structures which will remain in place after completion of the remedial action, as well as document areas of changed conditions or removals.
- Drawings indicating the surveyed limits of the excavation and location of all final confirmatory samples.
- Discussion on pilot remedial procedures as they relate to the segmented approach of the RAP
- Discussion on initiating the second phase of remediation on site

### 2.2 Post Remedial Action – Restoration

Upon the completion of excavation, sampling and necessary backfill activities, post remedial activities will begin. Any imported fill material utilized as backfill for intermediate or final grading of remediated areas will be certified either through sampling (1/5000 yards<sup>3</sup> delivered) or by documentation from the provider of the material. Proposed for both the north and southeast quadrants of the facility are a combination of an impermeable liner overlaid by an 8" reinforced concrete pad. Incorporated in each pad would be a series of trench drains to capture storm water runoff. Runoff would subsequently be channeled into an interceptor (holding) tank-oil/water separator system for treatment (separation) and effluent discharge. Preferred discharge location would be to sanitary sewer (pending permit approval). The final effluent discharge location will be determined and reported to the NYSDEC/NYSDOH at the completion of application-approval processes.

#### 2.2.1 Claymax® LC or equivalent Liner System

To provide an impermeable secondary containment layer beneath the proposed concrete pad work area(s), DTCS recommends the installation of a Claymax® LC or equivalent Liner System. A construction specification data sheet on the material may be referenced in **Attachment D**. The liner system utilizes the mineral sodium bentonite clay and the geotextile polypropylene to form an impermeable liner system. The sodium bentonite material is a high-swelling smectite which allows the liner to heal itself when ripped or punctured. In addition, the product affords a maximum of containment protection with resistance to chemicals such as acids, bases and petroleum products.

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DTCS will install the Claymax® LC or equivalent Liner System at the facility according to manufacturer's instructions (see **Attachment D**) to ensure structural integrity of the containment layer. Pending depth of the soil excavation(s), fill materials will most likely be required and compacted prior to installing the Claymax® system. Following the completion of this task, 6-12 inches of compacted soil or aggregate cover would be employed to act as a base during the installation of the concrete pad and storm water collection system.

### 2.2.2 Concrete Pad

Serving as an impermeable work area during automobile recycling procedures, and to allow for the collection of storm water runoff during same, a concrete pad is proposed in the north and southeast quadrants of the facility. The subject concrete pad would mimic a rectangular type pattern with the access road and fence providing three of the outer limits of the installation. To ensure proper working capacity, the proposed pad(s) would encompass an area of approximately 125' x 75' (see **Figure 3** for reference). Construction specifications include the following:

- 8" thickness, 4000 psi concrete with fiber and steel wire.
- Perimeter two rows of #4 bar three, 9" inches from edge.
- Expansion joints will be caulked with silicon to ensure water tightness.
- Poured concrete matt will be pitched towards the trench drains for the collection of storm water run off.
- Slotted 12" corrugated metal pipe (CMP) to be placed along designated corner for the acceptance of storm water run-off.
- 6" diameter, Schedule 80 PVC piping will lead from drains, northward to the proposed interceptor/separator treatment system.

All concrete work will be brush finished and allowed to cure for the appropriate time interval. Upon completion of construction activities, the automobile crusher and AST system will be transported from its present location to the southeast quadrant of the site so that all remedial/construction activities as described above can be performed. DTCS proposes that the water treatment system be installed within the northeastern quadrant of the site as outlined in the following section of this RAP.

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### 2.2.3 Storm water Interceptor/Treatment System

To process and treat storm water collected from the concrete work pads, DTCS recommends the use of an interceptor basin coupled with an oil/water separator unit. The proposed multi-wall basin interceptor treatment tank is designed to intercept and collect sand, grit, grease and petroleum product from storm water runoff. Influent is accepted via a gravity feed where the basin allows for the retention of wastewater to allow solids and hydrocarbons to separate from the liquid matrix due to

their differences in specific gravity. The Interceptor tank would contain multiple compartments where oil separates and floats to the surface, leaving clearer water beneath as the discharge effluent. Ultimately, debris falls to the bottom and accumulates at the sludge baffle. The interceptor basin would be constructed from mild carbon steel, complete with interior/exterior blast and finish coatings, along with an internal polyurethane lining (meeting all ASTM specifications). For this drainage application, DTCS also proposes the employment of a performance oil/water separator for heavy solids removal.

The oil/water separator is an underground, wastewater treatment vessel, employed to provide secondary treatment of storm water runoff. Internal baffles and coalescers accelerate the oil/water separation process. Waste accumulates within the separator while effluent is discharged by gravity. For enhanced oil removal efficiency, a polypropylene coalescer (a bundle of oleophilic - oil attracting - fibers, layered from coarse to fine and encased within a solid framework) would be utilized to intercept droplets of oil too minute to be removed by the parallel corrugated plate coalescer. This system is designed for access from above for observation, maintenance and cleaning.

### 2.2.4 Storm water Management Design Estimates

To properly size the proposed treatment system, DTCS first needed to establish storm water planning goals for the site. Hence, to ensure the proposed system could process and adequately remediate runoff during maximum flows, DTCS utilized a design or theoretical storm event based on rainfall intensities associated with frequency of occurrence and having a set duration. The design storm employed in estimating maximum runoff for the site entailed a 1" per hour storm event. Couple the rainfall data with the two 9375 square foot concrete pad areas or potential run-off area currently being processed through the storm water collection system, DTCS could proceed with determining peak discharge rates.

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To determine peak discharges from a small drainage area such as the subject property, DTCS utilized the Rational Formula. The Rational Formula is expressed as

$$Q = (C) (i) (A)$$

*Where:*

Q = peak rate of runoff in cubic feet per second (cfs)

C = runoff coefficient, a dimensionless unit

i = average intensity of rainfall in inches per hour (in/hr)

A = the runoff area in acres (ac)

### **C – The Runoff Coefficient**

The runoff coefficient, C, is expressed as a dimensionless decimal that represents the ratio of runoff to rainfall. With the exception of precipitation, which is accounted for in the formula by using the average intensity of rainfall over some time period, all other portions of the hydrologic cycle are contained in the runoff coefficient. Since C is categorized by surface or as applied to the site, a concrete surface, the respective published runoff coefficient equates to 0.8-0.95. For forecasting purposes DTCS will assume worst case, and utilize the upper runoff ratio of 0.95.

### **i – Rainfall Intensity**

The rainfall intensity used in the rational formula is an average of rainfall data expressed in inches per hour. Given Ulster County critical storm data, rainfall intensity averaging time, 1.1 inches/hour was calculated as i.

### **A – Runoff Area**

As a component of the rational method for determining peak runoff, the drainage area of the site was considered to be that cover which discharges into the two- (2) trench drains present along the edges of the concrete pads. As such, the 18,750 square foot area when converted to acres for use in the formula equals 0.430 acres.

*Therefore:*

$$\begin{aligned} Q &= (C) (i) (A) \\ &= (0.95) (1.1 \text{ in/hr}) (.430 \text{ ac}) = 0.449 \text{ cfs or approximately 200 gpm} \end{aligned}$$

Thus, the peak discharge rate for the drainage area to be treated on the subject property equates to 200 gpm. While designing a remediation system to treat runoff from storm events, the system must be able to process and discharge 200 gpm to maintain constant flow and thus prevent system failure.

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Considering all the coefficients of the storm water management and the proposed design criteria, DTCS proposes to utilize 3,000 gallon interceptor basin coupled with a 550 gallon oil/water separator to process collected liquids from the system (see **Figures 4 & 5** for general schematic diagrams).

### 2.2.5 Operation and Maintenance

The storm water treatment system will undergo regular maintenance inspections to determine the thickness of the oil and sludge layer and for regular maintenance/cleaning. When required, a certified waste hauler will pump out the oil and sludge through the access man ways along the top of each vessel.

## 3.0 POST REMEDIAL ACTION PLAN

To provide additional assurance so that recontamination does not occur during the normal course of operations at the B. Millens Sons, Inc. facility, the following recommendations are offered:

- Provided in **Attachment E** is a Liquid Management and Spill Prevention, Containment and Countermeasure Plan. The document details the procedures that will be put into effect and the emergency response protocol which will be adapted by B. Millens Sons, Inc. site to properly handle fluids entering the site from scrap metal received and/or processed at the site and to minimize the likelihood of an intended release of petroleum or chemical liquids.
- B. Millens Sons, Inc. will maintain gravel "wet pads" along the entrance and exit access ways on-site to minimize sediment dispersal on adjacent roadways.
- To assist in sediment (mud) migration leaving the site, B. Millens Sons, Inc. has acquired a skid-steer with a sweeper attachment to be utilized as required along surrounding vehicular corridors. Visual observations will be made throughout each work day to assess the need to sweep described pathways. Any collected sediment will be re-deposited at a select location within the subject site.
- B. Millens Sons, Inc. will perform regular inspections of the site and all above ground storage systems to ensure environmental compliance with all local, state and federal regulations.

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- Combined with the above, B. Millens Sons, Inc. will maintain the concrete pad – clay liner containment and storm water management systems employed to capture liquid phase run-off.

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*FIGURES*



3-D TopoQuads Copyright © 1999 DeLorme, Yorktown, ME 04096 Source Data: USGS 1:25,000 Scale: 1:25,000 Detail: 1:4 Datum: WGS84

**Client:** B. Millens Sons, Inc.

**Site:** B. Millens Sons, Inc., 230 East Strand, Kingston, NY

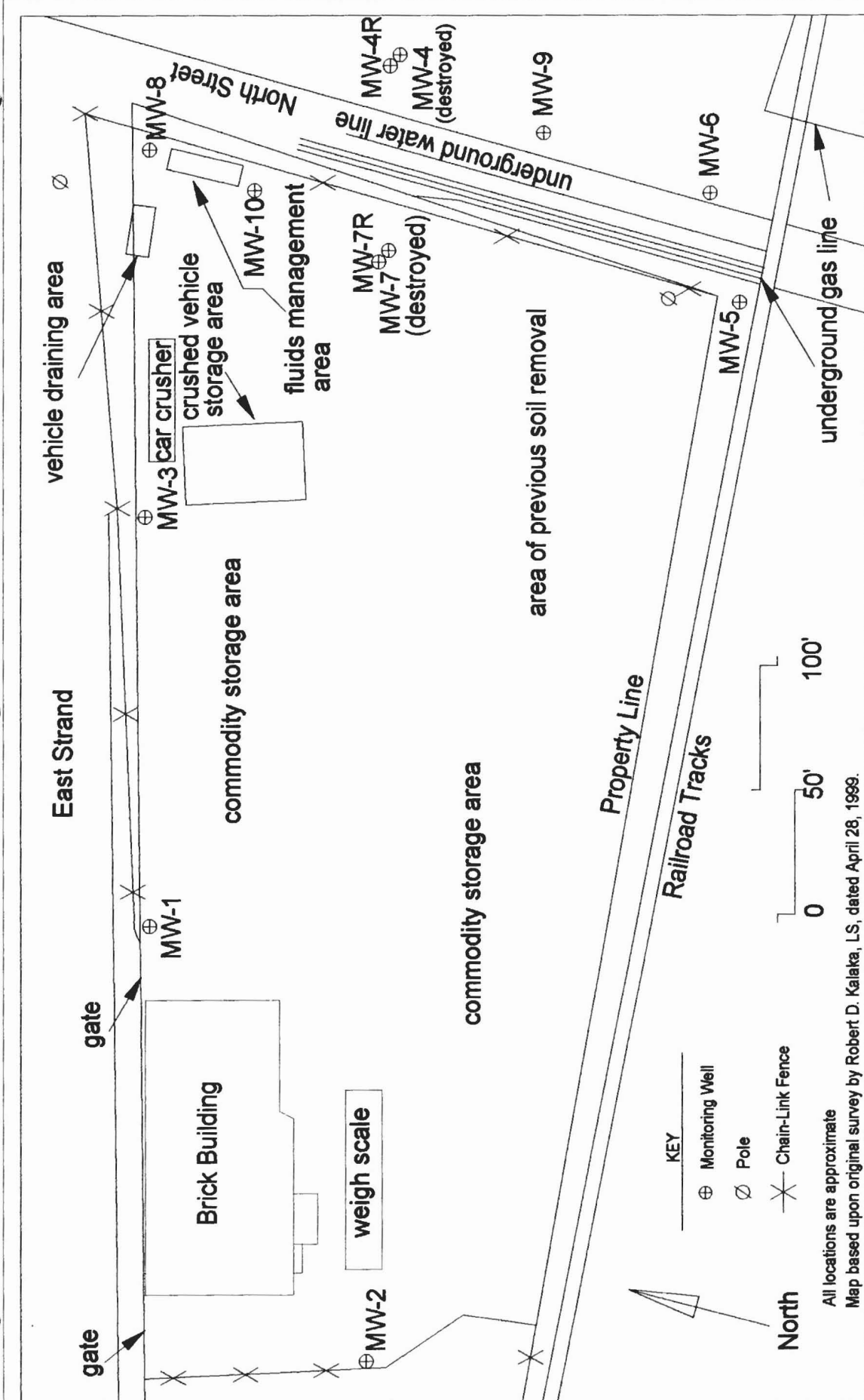
**Spill #:**  
96-04764

**Drawn by:**  
DJT

**Scale:**  
1 : 25,000

## Site Location Plan

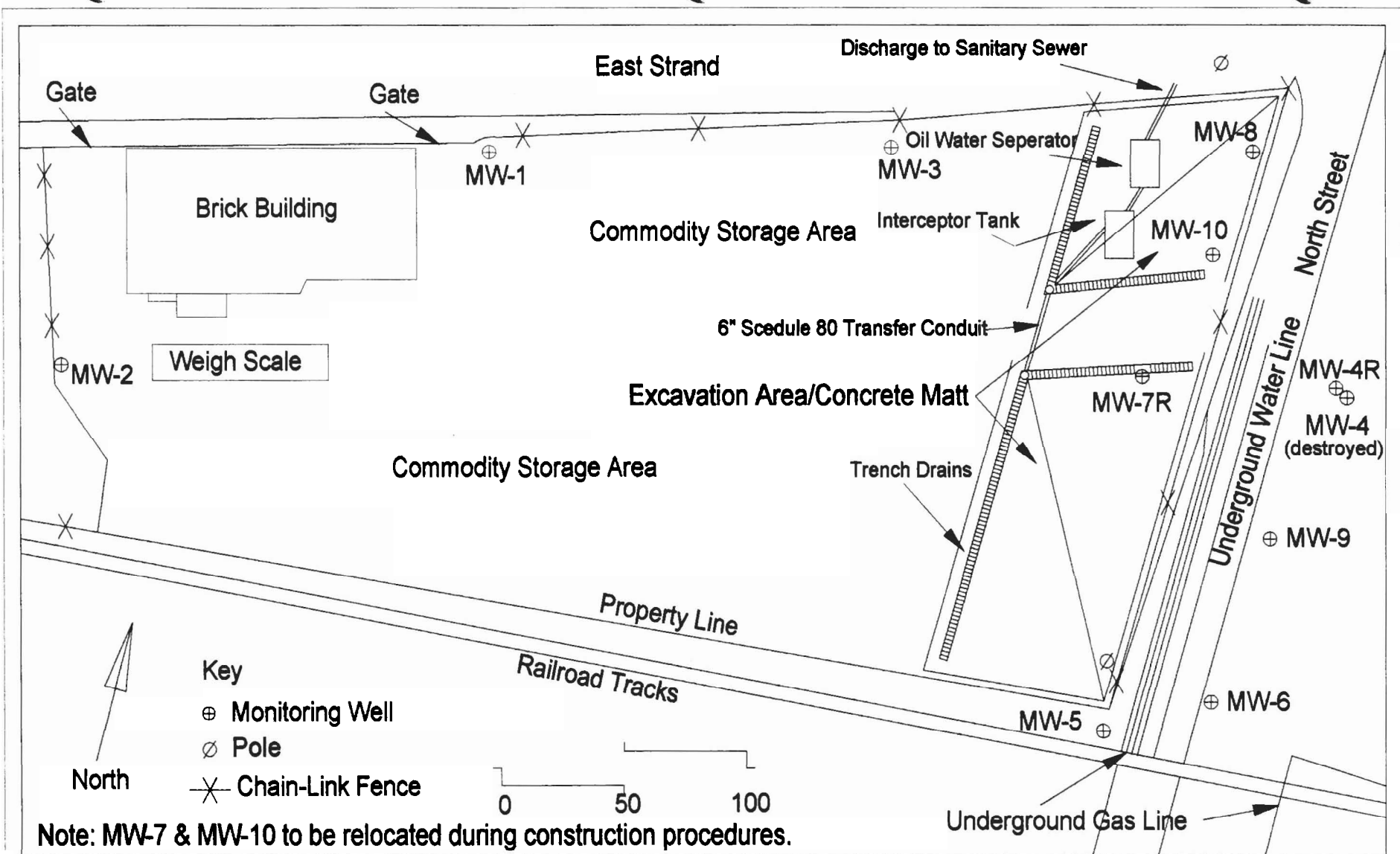
**Figure No:** 1



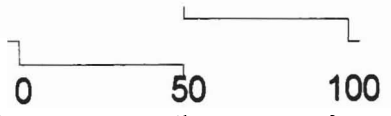
All locations are approximate  
 Map based upon original survey by Robert D. Kalata, LS, dated April 28, 1999.

**DT Consulting Services, Inc.**  
 1291 Old Post Road  
 Ulster Park, New York 12487  
 (845) 658-3484

**Client:** B. Millens Sons, Inc.  
**Location:** B. Millens Sons, Inc., 230 East Strand, Kingston, New York  
**Title:** Site (base) Plan  
**Scale:** Graphic    **Drawn By:** O.T.    **Spill No:** 96-04764    **Fig.#:** 2



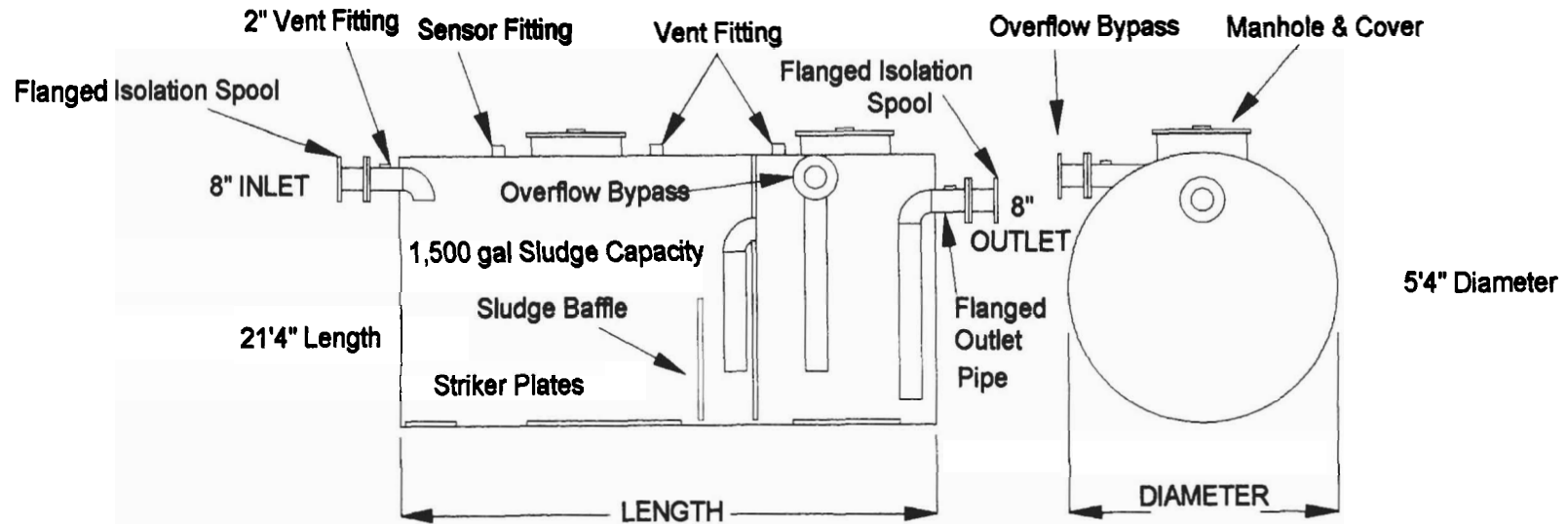
- Key**
- ⊕ Monitoring Well
  - ∅ Pole
  - ✕ Chain-Link Fence



**Note: MW-7 & MW-10 to be relocated during construction procedures.**

<b>DT Consulting Services, Inc.</b> 1291 Old Post Road Ulster Park, New York 12487 (845) 658-3484	<b>Client:</b> B. Millens Sons, Inc.			
	<b>Location:</b> B. Millens Sons, Inc., East Strand, Kingston, New York			
	<b>Title:</b> Storm water Construction Schematics			
	<b>Scale:</b> Graphic	<b>Drawn By:</b> O.T.	<b>OCN:</b> W3-0817-98-08	<b>Fig.#:</b> 3

**3,000 Gallon  
HT DB Double Basin Interceptor  
300 gpm Flow Rate**



DT Consulting Services, Inc.  
1291 Old Post Road  
Ulster Park, New York 12487  
(845) 658-3484

Client: **B. Millens Sons, Inc.**

Location: **B. Millens Sons, Inc., East Strand, Kingston, New York**

Title: **Interceptor Basin Schematics**

Scale: **Graphic**

Drawn By: **O.T.**

OCN: **W3-0817-98-08**

Fig.#: **4**

**GENERAL SPECIFICATIONS**

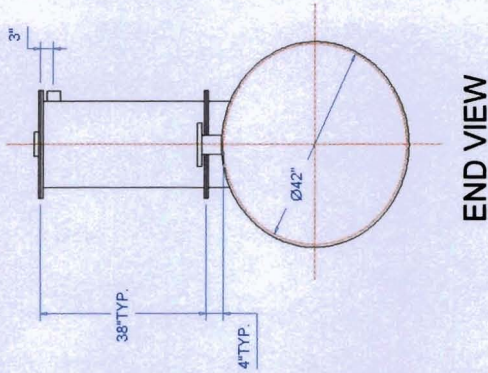
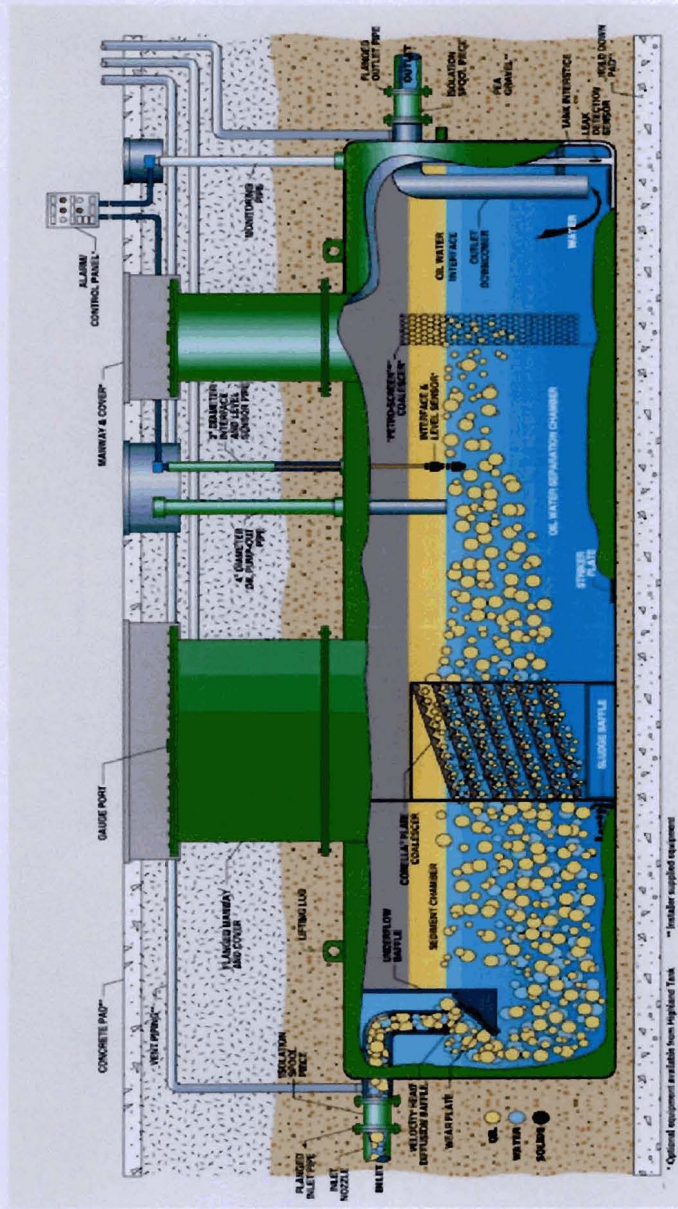
NO. REOD: (1)  
 CAPACITY: 550 GALLON  
 TYPE: HTC, HIGHGUARD, SINGLE WALL  
 MATERIAL: MILD CARBON STEEL  
 FLOW RATE: 55 GPM  
 GAUGE: 7GA  
 SHELL: 7GA  
 HEADS: 7GA  
 SURFACE PREP: SSPEC NO 6 BLAST ALL EXTERIOR SURFACES

COATING: MATERIAL THICKNESS  
 EXTERIOR: HIGHGUARD (75 MILS)  
 INTERIOR: NONE

CONSTRUCTION: LAP FIT & WELD ALL EXTERIOR SEAMS  
 OPERATING PRESSURE: ATMOSPHERIC

- NOTES:  
 1. POLYURETHANE HIGHGUARD TANK IS NOT APPROVED FOR THE STORAGE OF HEATED PRODUCTS  
 2. TANK HAS 30 YEAR LIMITED WARRANTY  
 3. 15000 VOLT SPARK TEST PROVIDED AT FACTORY  
 4. ALL VENT PIPING BY INSTALLER

**550 Gallon  
 Oil Water Separator  
 55 gpm Flow Rate**



**DT Consulting Services, Inc.**  
 1291 Old Post Road  
 Ulster Park, New York 12487  
 (845) 658-3484

**Client: B. Millens Sons, Inc.**

**Location: B. Millens Sons, Inc., East Strand, Kingston, New York**

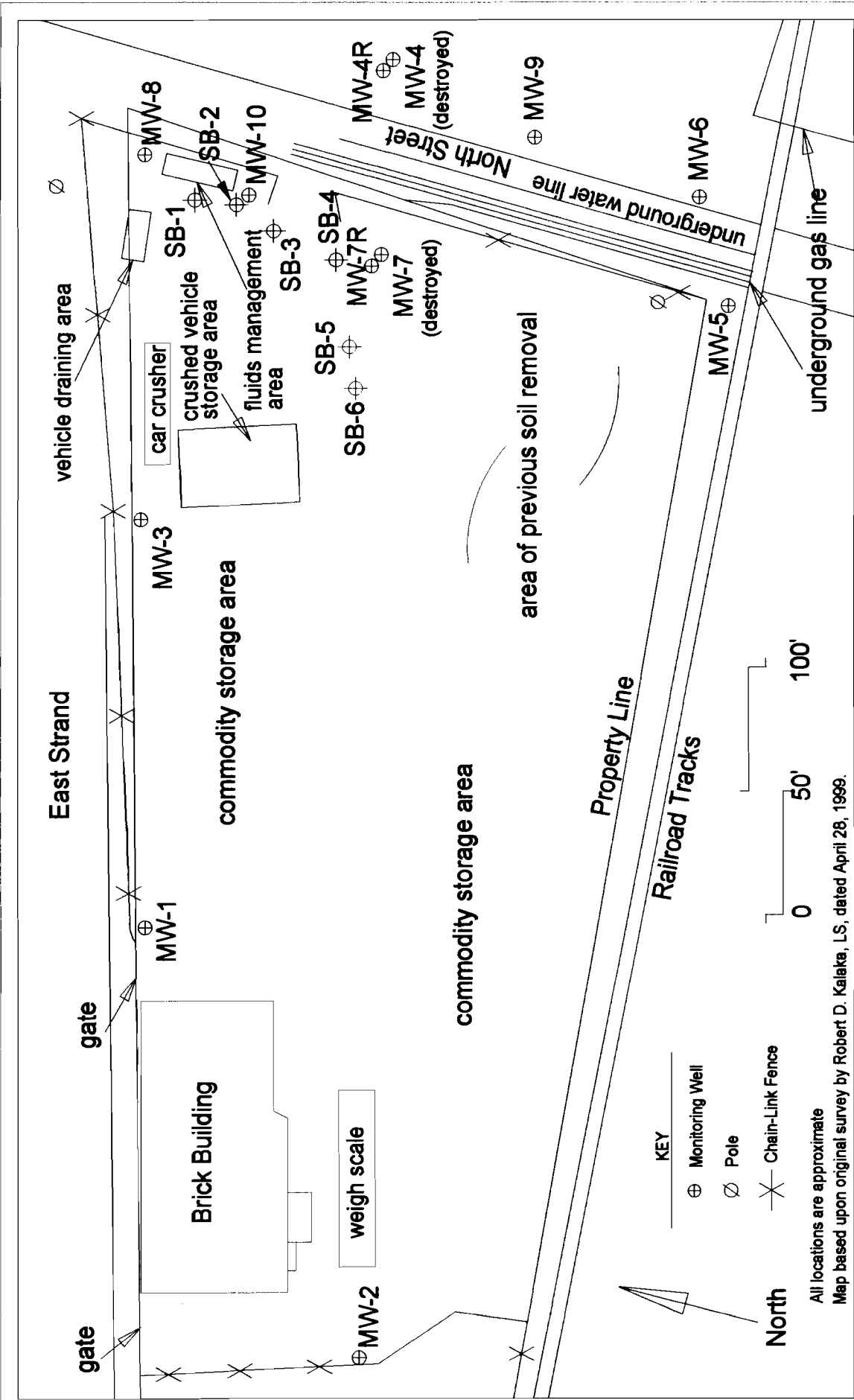
**Title: Oil Water Separator Schematic**

**Scale: Graphic    Drawn By: O.T.    OCN: W3-0817-98-08    Fig.#: 5**

*ATTACHMENTS*

*ATTACHMENT A*





<b>DT Consulting Services, Inc.</b> 1291 Old Post Road Ulster Park, New York 12487 (845) 658-3484		<b>Client:</b> B. Millens Sons, Inc. <b>Location:</b> B. Millens Sons, Inc., 230 East Strand, Kingston, New York <b>Title:</b> Soil Boring Location Plan - August 2005 <b>Scale:</b> Graphic <b>Drawn By:</b> O.T. <b>Spill No:</b> 96-04764 <b>Fig.#:</b>	
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# Technical Report

prepared for

**DT Consulting Services**  
1291 Old Post Road  
Ulster Park, NY 12487  
Attention: Deborah Thompson

Report Date: 9/8/2005  
*Re: Client Project ID: B. Millers Sons, Inc., Kingston, NY*  
York Project No.: 05080907

CT License No. PH-0723

New York License No. 10854



Report Date: 9/8/2005  
 Client Project ID: B. Millers Sons, Inc., Kingston, NY  
 York Project No.: 05080907

**DT Consulting Services**  
 1291 Old Post Road  
 Ulster Park, NY 12487  
 Attention: Deborah Thompson

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 08/30/05. The project was identified as your project "B. Millers Sons, Inc., Kingston, NY".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## Analysis Results

Client Sample ID			SB1 0-5.5'		SB1 5.5-8'	
York Sample ID			05080907-01		05080907-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			7900	100	7	5.0
1,3,5-Trimethylbenzene			850	100	Not detected	5.0
Benzene			Not detected	100	Not detected	5.0
Ethylbenzene			320	100	Not detected	5.0
Isopropylbenzene			170	100	Not detected	5.0
Methyl-tert-butyl ether (MTBE)			Not detected	100	45	5.0
Naphthalene			1600	100	Not detected	5.0
n-Butylbenzene			800	100	Not detected	5.0
n-Propylbenzene			750	100	Not detected	5.0
o-Xylene			410	200	Not detected	10
p- & m-Xylenes			1200	200	Not detected	10
p-Isopropyltoluene			480	100	Not detected	5.0
sec-Butylbenzene			170	100	Not detected	5.0
tert-Butylbenzene			Not detected	100	Not detected	5.0
Toluene			Not detected	100	Not detected	5.0
Total Xylenes			1610	200	Not detected	10

**YORK**

Client Sample ID			SB1 0-5.5'		SB1 5.5-8'	
York Sample ID			05080907-01		05080907-02	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>STARS Target Semi-Volatiles</b>	SW846-8270	ug/kG	---	---	---	---
Acenaphthene			96	96	Not detected	48
Anthracene			Not detected	64	Not detected	32
Benzo[a]anthracene			250	92	Not detected	46
Benzo[a]pyrene			180	96	Not detected	48
Benzo[b]fluoranthene			160	76	Not detected	38
Benzo[g,h,i]perylene			130	110	Not detected	55
Benzo[k]fluoranthene			160	180	Not detected	91
Chrysene			300	90	Not detected	45
Dibenz[a,h]anthracene			Not detected	94	Not detected	47
Fluoranthene			670	82	Not detected	41
Fluorene			180	120	Not detected	60
Indeno[1,2,3-cd]pyrene			89	110	Not detected	54
Naphthalene			2000	76	Not detected	38
Phenanthrene			710	90	Not detected	45
Pyrene			610	110	Not detected	56
<b>PCB</b>	SW846-3550B/8082	mg/Kg	---	---	---	---
PCB 1016			Not detected	0.02	Not detected	0.02
PCB 1221			Not detected	0.02	Not detected	0.02
PCB 1232			Not detected	0.02	Not detected	0.02
PCB 1242			Not detected	0.02	Not detected	0.02
PCB 1248			Not detected	0.02	Not detected	0.02
PCB 1254			Not detected	0.02	Not detected	0.02
PCB 1260			Not detected	0.02	Not detected	0.02
PCB, Total			Not detected	0.02	Not detected	0.02
<b>Total RCRA Metals</b>	SW846	mg/kG	---	---	---	---
Arsenic, total			6.81	1.00	1.81	1.00
Barium, total			64.1	0.50	25.9	0.50
Cadmium, total			Not detected	0.50	Not detected	0.50
Chromium, total			7.26	0.50	7.49	0.50
Lead, total			359	0.50	9.32	0.50
Selenium, total			2.12	1.00	2.54	1.00
Silver, total			Not detected	0.50	Not detected	0.50
Mercury	SW846-7471	mg/kG	Not detected	0.10	Not detected	0.10

Client Sample ID			SB2 0-3.5'		SB3 0-2'	
York Sample ID			05080907-03		05080907-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			120000	500	85000	500
1,3,5-Trimethylbenzene			37000	500	22000	500
Benzene			Not detected	500	Not detected	500
Ethylbenzene			18000	500	17000	500
Isopropylbenzene			2800	500	2400	500
Methyl-tert-butyl ether (MTBE)			Not detected	500	Not detected	500
Naphthalene			26000	500	22000	500
n-Butylbenzene			11000	500	7900	500
n-Propylbenzene			12000	500	9900	500

**YORK**

Client Sample ID			SB2 0-3.5'		SB3 0-2'	
York Sample ID			05080907-03		05080907-04	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
o-Xylene			38000	1000	33000	1000
p- & m-Xylenes			90000	1000	80000	1000
p-Isopropyltoluene			4900	500	750	500
sec-Butylbenzene			1600	500	1200	500
tert-Butylbenzene			Not detected	500	Not detected	500
Toluene			3600	500	25000	500
Total Xylenes			128000	1000	113000	1000
<b>STARS Target Semi-Volatiles</b>	SW846-8270	ug/kG	---	---	---	---
Acenaphthene			Not detected	960	Not detected	240
Anthracene			Not detected	640	Not detected	160
Benzo[a]anthracene			Not detected	920	Not detected	230
Benzo[a]pyrene			Not detected	960	Not detected	240
Benzo[b]fluoranthene			Not detected	760	Not detected	190
Benzo[g,h,i]perylene			Not detected	1100	Not detected	280
Benzo[k]fluoranthene			Not detected	1800	Not detected	460
Chrysene			Not detected	900	Not detected	230
Dibenz[a,h]anthracene			Not detected	940	Not detected	240
Fluoranthene			880	820	300	210
Fluorene			Not detected	1200	Not detected	300
Indeno[1,2,3-cd]pyrene			Not detected	1100	Not detected	270
Naphthalene			32000	760	13000	190
Phenanthrene			1900	900	540	230
Pyrene			Not detected	1100	320	280
<b>PCB</b>	SW846-3550B/8082	mg/Kg	---	---	---	---
PCB 1016			Not detected	0.20	Not detected	0.02
PCB 1221			Not detected	0.20	Not detected	0.02
PCB 1232			Not detected	0.20	Not detected	0.02
PCB 1242			0.60	0.20	0.13	0.02
PCB 1248			Not detected	0.20	Not detected	0.02
PCB 1254			0.44	0.20	0.12	0.02
PCB 1260			Not detected	0.20	0.04	0.02
PCB, Total			1.04	0.20	0.29	0.02
<b>Total RCRA Metals</b>	SW846	mg/kG	---	---	---	---
Arsenic, total			9.50	1.00	9.02	1.00
Barium, total			143	0.50	84.7	0.50
Cadmium, total			0.67	0.50	1.22	0.50
Chromium, total			11.1	0.50	21.1	0.50
Lead, total			99.5	0.50	183	0.50
Selenium, total			3.46	1.00	3.58	1.00
Silver, total			Not detected	0.50	1.08	0.50
Mercury	SW846-7471	mg/kG	Not detected	0.10	Not detected	0.10

Client Sample ID			SB3 2-4'		SB3 4-5.2'	
York Sample ID			05080907-05		05080907-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			82000	500	24000	100
1,3,5-Trimethylbenzene			24000	500	5900	100

**YORK**

Client Sample ID			SB3 2-4'		SB3 4-5.2'	
York Sample ID			05080907-05		05080907-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Benzene			Not detected	500	340	100
Ethylbenzene			16000	500	2800	100
Isopropylbenzene			2200	500	580	100
Methyl-tert-butyl ether (MTBE)			Not detected	500	140	100
Naphthalene			15000	500	9000	100
n-Butylbenzene			7500	500	2600	100
n-Propylbenzene			9500	500	2500	100
o-Xylene			32000	1000	5700	200
p- & m-Xylenes			72000	1000	14000	200
p-Isopropyltoluene			2900	500	210	100
sec-Butylbenzene			1200	500	320	100
tert-Butylbenzene			Not detected	500	Not detected	100
Toluene			23000	500	3500	100
Total Xylenes			104000	1000	19700	200
<b>STARS Target Semi-Volatiles</b>	SW846-8270	ug/kg	---	---	---	---
Acenaphthene			Not detected	240	Not detected	240
Anthracene			Not detected	160	210	160
Benzo[a]anthracene			Not detected	230	500	230
Benzo[a]pyrene			Not detected	240	480	240
Benzo[b]fluoranthene			Not detected	190	400	190
Benzo[g,h,i]perylene			Not detected	280	Not detected	280
Benzo[k]fluoranthene			Not detected	460	600	460
Chrysene			290	230	860	230
Dibenz[a,h]anthracene			Not detected	240	Not detected	240
Fluoranthene			240	210	1800	210
Fluorene			Not detected	300	Not detected	300
Indeno[1,2,3-cd]pyrene			Not detected	270	Not detected	270
Naphthalene			8800	190	550	190
Phenanthrene			470	230	1300	230
Pyrene			350	280	1800	280
<b>PCB</b>	SW846-3550B/8082	mg/Kg	---	---	---	---
PCB 1016			Not detected	0.02	Not detected	0.02
PCB 1221			Not detected	0.02	Not detected	0.02
PCB 1232			Not detected	0.02	Not detected	0.02
PCB 1242			0.11	0.02	Not detected	0.02
PCB 1248			Not detected	0.02	Not detected	0.02
PCB 1254			0.11	0.02	Not detected	0.02
PCB 1260			0.03	0.02	Not detected	0.02
PCB, Total			0.25	0.02	Not detected	0.02
<b>Total RCRA Metals</b>	SW846	mg/kG	---	---	---	---
Arsenic, total			13.4	1.00	7.34	1.00
Barium, total			154	0.50	137	0.50
Cadmium, total			5.42	0.50	0.76	0.50
Chromium, total			35.6	0.50	16.5	0.50
Lead, total			588	0.50	278	0.50
Selenium, total			3.83	1.00	3.97	1.00
Silver, total			0.94	0.50	0.81	0.50
Mercury	SW846-7471	mg/kG	0.13	0.10	Not detected	0.10

**YORK**

Client Sample ID			SB4 0-3.5'		SB5 0-4'	
York Sample ID			05080907-07		05080907-08	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			47000	250	5500	10
1,3,5-Trimethylbenzene			13000	250	2500	10
Benzene			1600	250	36	10
Ethylbenzene			7700	250	290	10
Isopropylbenzene			1000	250	71	10
Methyl-tert-butyl ether (MTBE)			840	250	130	10
Naphthalene			9400	250	2800	10
n-Butylbenzene			4400	250	450	10
n-Propylbenzene			4900	250	170	10
o-Xylene			11000	500	830	20
p- & m-Xylenes			37000	500	2500	20
p-Isopropyltoluene			1800	250	61	10
sec-Butylbenzene			660	250	Not detected	10
tert-Butylbenzene			Not detected	250	Not detected	10
Toluene			5900	250	58	10
Total Xylenes			48000	500	3330	20
<b>STARS Target Semi-Volatiles</b>	SW846-8270	ug/kG	---	---	---	---
Acenaphthene			Not detected	240	Not detected	240
Anthracene			Not detected	160	200	160
Benzo[a]anthracene			Not detected	230	370	230
Benzo[a]pyrene			Not detected	240	Not detected	240
Benzo[b]fluoranthene			Not detected	190	Not detected	190
Benzo[g,h,i]perylene			Not detected	280	Not detected	280
Benzo[k]fluoranthene			Not detected	460	Not detected	460
Chrysene			Not detected	230	520	230
Dibenz[a,h]anthracene			Not detected	240	Not detected	240
Fluoranthene			400	210	550	210
Fluorene			Not detected	300	Not detected	300
Indeno[1,2,3-cd]pyrene			Not detected	270	Not detected	270
Naphthalene			9800	190	4000	190
Phenanthrene			610	230	680	230
Pyrene			470	280	700	280
<b>PCB</b>	SW846-3550B/8082	mg/Kg	---	---	---	---
PCB 1016			Not detected	0.02	Not detected	0.02
PCB 1221			Not detected	0.02	Not detected	0.02
PCB 1232			Not detected	0.02	Not detected	0.02
PCB 1242			0.16	0.02	0.66	0.02
PCB 1248			Not detected	0.02	Not detected	0.02
PCB 1254			0.17	0.02	0.61	0.02
PCB 1260			0.05	0.02	0.14	0.02
PCB, Total			0.38	0.02	1.41	0.02
<b>Total RCRA Metals</b>	SW846	mg/kG	---	---	---	---
Arsenic, total			10.7	1.00	17.4	1.00
Barium, total			169	0.50	172	0.50
Cadmium, total			4.00	0.50	7.85	0.50
Chromium, total			53.8	0.50	620	0.50
Lead, total			541	0.50	919	0.50
Selenium, total			4.74	1.00	5.17	1.00
Silver, total			1.14	0.50	17.8	0.50
Mercury	SW846-7471	mg/kG	Not detected	0.10	1.57	0.10

**YORK**

Client Sample ID			SB5 4-8'		SB6 0-2'	
York Sample ID			05080907-09		05080907-10	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles- STARS List</b>	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			1300	5.0	200	5.0
1,3,5-Trimethylbenzene			510	5.0	46	5.0
Benzene			8	5.0	15	5.0
Ethylbenzene			150	5.0	29	5.0
Isopropylbenzene			34	5.0	8	5.0
Methyl-tert-butyl ether (MTBE)			18	5.0	21	5.0
Naphthalene			610	5.0	87	5.0
n-Butylbenzene			110	5.0	13	5.0
n-Propylbenzene			95	5.0	16	5.0
o-Xylene			130	10	29	10
p- & m-Xylenes			840	10	120	10
p-Isopropyltoluene			12	5.0	10	5.0
sec-Butylbenzene			15	5.0	Not detected	5.0
tert-Butylbenzene			Not detected	5.0	Not detected	5.0
Toluene			40	5.0	54	5.0
Total Xylenes			970	10	149	10
<b>STARS Target Semi-Volatiles</b>	SW846-8270	ug/kG	---	---	---	---
Acenaphthene			Not detected	240	Not detected	240
Anthracene			Not detected	160	Not detected	160
Benzo[a]anthracene			330	230	Not detected	230
Benzo[a]pyrene			260	240	Not detected	240
Benzo[b]fluoranthene			260	190	Not detected	190
Benzo[g,h,i]perylene			Not detected	280	Not detected	280
Benzo[k]fluoranthene			Not detected	460	Not detected	460
Chrysene			430	230	400	230
Dibenz[a,h]anthracene			Not detected	240	Not detected	240
Fluoranthene			700	210	330	210
Fluorene			Not detected	300	Not detected	300
Indeno[1,2,3-cd]pyrene			Not detected	270	Not detected	270
Naphthalene			2600	190	Not detected	190
Phenanthrene			510	230	270	230
Pyrene			840	280	370	280
<b>PCB</b>	SW846-3550B/8082	mg/Kg	---	---	---	---
PCB 1016			Not detected	0.02	Not detected	0.02
PCB 1221			Not detected	0.02	Not detected	0.02
PCB 1232			Not detected	0.02	Not detected	0.02
PCB 1242			0.53	0.02	0.32	0.02
PCB 1248			Not detected	0.02	Not detected	0.02
PCB 1254			0.55	0.02	0.40	0.02
PCB 1260			Not detected	0.02	0.12	0.02
PCB, Total			1.08	0.02	0.84	0.02
<b>Total RCRA Metals</b>	SW846	mg/kG	---	---	---	---
Arsenic, total			11.7	1.00	9.37	1.00
Barium, total			163	0.50	172	0.50
Cadmium, total			3.25	0.50	2.31	0.50
Chromium, total			27.7	0.50	17.3	0.50
Lead, total			698	0.50	750	0.50
Selenium, total			4.81	1.00	4.81	1.00

**YORK**



Client Sample ID			SB5 4-8'		SB6 0-2'	
York Sample ID			05080907-09		05080907-10	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Silver, total			0.77	0.50	Not detected	0.50
Mercury	SW846-7471	mg/kg	Not detected	0.10	Not detected	0.10

Client Sample ID			SB6 2-4'		SB6 4-6'	
York Sample ID			05080907-11		05080907-12	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles- STARS List	SW846-8260	ug/Kg	---	---	---	---
1,2,4-Trimethylbenzene			1300	25	Not detected	5.0
1,3,5-Trimethylbenzene			600	25	Not detected	5.0
Benzene			Not detected	25	Not detected	5.0
Ethylbenzene			170	25	6	5.0
Isopropylbenzene			26	25	Not detected	5.0
Methyl-tert-butyl ether (MTBE)			Not detected	25	Not detected	5.0
Naphthalene			580	25	Not detected	5.0
n-Butylbenzene			150	25	Not detected	5.0
n-Propylbenzene			73	25	Not detected	5.0
o-Xylene			150	50	Not detected	10
p- & m-Xylenes			650	50	Not detected	10
p-Isopropyltoluene			Not detected	25	Not detected	5.0
sec-Butylbenzene			Not detected	25	Not detected	5.0
tert-Butylbenzene			130	25	Not detected	5.0
Toluene			52	25	6	5.0
Total Xylenes			800	50	Not detected	10
STARS Target Semi-Volatiles	SW846-8270	ug/kg	---	---	---	---
Acenaphthene			Not detected	240	Not detected	240
Anthracene			Not detected	160	Not detected	160
Benzo[a]anthracene			Not detected	230	250	230
Benzo[a]pyrene			Not detected	240	Not detected	240
Benzo[b]fluoranthene			Not detected	190	Not detected	190
Benzo[g,h,i]perylene			Not detected	280	Not detected	280
Benzo[k]fluoranthene			Not detected	460	Not detected	460
Chrysene			Not detected	230	280	230
Dibenz[a,h]anthracene			Not detected	240	Not detected	240
Fluoranthene			250	210	530	210
Fluorene			Not detected	300	Not detected	300
Indeno[1,2,3-cd]pyrene			Not detected	270	Not detected	270
Naphthalene			Not detected	190	Not detected	190
Phenanthrene			Not detected	230	300	230
Pyrene			300	280	500	280
PCB	SW846-3550B/8082	mg/Kg	---	---	---	---
PCB 1016			Not detected	0.20	Not detected	0.02
PCB 1221			Not detected	0.20	Not detected	0.02
PCB 1232			Not detected	0.20	Not detected	0.02
PCB 1242			1.92	0.20	0.04	0.02
PCB 1248			Not detected	0.20	Not detected	0.02
PCB 1254			0.71	0.20	0.02	0.02
PCB 1260			Not detected	0.20	Not detected	0.02
PCB, Total			2.63	0.20	0.06	0.02

**YORK**

Client Sample ID			SB6 2-4'		SB6 4-6'	
York Sample ID			05080907-11		05080907-12	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Total RCRA Metals</b>	SW846	mg/kG	---	---	---	---
Arsenic, total			11.8	1.00	3.64	1.00
Barium, total			98.8	0.50	36.2	0.50
Cadmium, total			4.25	0.50	Not detected	0.50
Chromium, total			73.7	0.50	7.91	0.50
Lead, total			959	0.50	19.0	0.50
Selenium, total			3.86	1.00	2.96	1.00
Silver, total			1.16	0.50	Not detected	0.50
Mercury	SW846-7471	mg/kG	Not detected	0.10	Not detected	0.10

Client Sample ID			MW-1		MW-2	
York Sample ID			05080907-13		05080907-14	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
<b>Volatiles-STARs List</b>	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	1	Not detected	1
1,3,5-Trimethylbenzene			Not detected	1	Not detected	1
Benzene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	1	Not detected	1
Isopropylbenzene			Not detected	1	Not detected	1
Methyl-tert-butyl ether			Not detected	1	4	1
Naphthalene			Not detected	1	Not detected	1
n-Butylbenzene			Not detected	1	Not detected	1
n-Propylbenzene			Not detected	1	Not detected	1
o-Xylene			Not detected	1	Not detected	1
p- & m- Xylenes			Not detected	1	Not detected	1
p-Isopropyltoluene			Not detected	1	Not detected	1
sec-Butylbenzene			Not detected	1	Not detected	1
tert-Butylbenzene			Not detected	1	Not detected	1
Toluene			Not detected	1	Not detected	1
Total Xylenes			Not detected	2	Not detected	2
<b>STARs- Target Semi-Volatiles</b>	SW846-8270	ug/L	---	---	---	---
Acenaphthene			Not detected	1.4	Not detected	1.4
Anthracene			Not detected	1.0	Not detected	1.0
Benzo[a]anthracene			Not detected	1.4	Not detected	1.4
Benzo[a]pyrene			Not detected	1.5	Not detected	1.5
Benzo[b]fluoranthene			Not detected	1.2	Not detected	1.2
Benzo[g,h,i]perylene			Not detected	1.7	Not detected	1.7
Benzo[k]fluoranthene			Not detected	2.8	Not detected	2.8
Chrysene			Not detected	1.4	Not detected	1.4
Dibenz[a,h]anthracene			Not detected	1.4	Not detected	1.4
Fluoranthene			Not detected	1.2	Not detected	1.2
Fluorene			Not detected	1.2	Not detected	1.2
Indeno[1,2,3-cd]pyrene			Not detected	1.6	Not detected	1.6
Naphthalene			Not detected	1.2	Not detected	1.2
Phenanthrene			Not detected	1.4	Not detected	1.4
Pyrene			Not detected	1.7	Not detected	1.7

**YORK**

Client Sample ID			MW-1		MW-2	
York Sample ID			05080907-13		05080907-14	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
PCB	SW846-3510C/8082	ug/L	---	---	---	---
PCB 1016			Not detected	0.80	Not detected	0.80
PCB 1221			Not detected	0.80	Not detected	0.80
PCB 1232			Not detected	0.80	Not detected	0.80
PCB 1242			Not detected	0.80	Not detected	0.80
PCB 1248			Not detected	0.80	Not detected	0.80
PCB 1254			Not detected	0.80	Not detected	0.80
PCB 1260			Not detected	0.80	Not detected	0.80
PCB, Total			Not detected	0.80	Not detected	0.80
Dissolved RCRA Metals	SW846	mg/L	---	---	---	---
Arsenic, dissolved			Not detected	0.010	Not detected	0.010
Barium, dissolved			0.378	0.005	0.082	0.005
Cadmium, dissolved			Not detected	0.005	Not detected	0.005
Chromium, dissolved			Not detected	0.005	Not detected	0.005
Lead, dissolved			Not detected	0.005	Not detected	0.005
Selenium, dissolved			Not detected	0.010	Not detected	0.010
Silver, dissolved			Not detected	0.005	Not detected	0.005
Mercury, Dissolved	SW-846-7470	mg/L	Not detected	0.0002	Not detected	0.0002

Client Sample ID			MW-4R		MW-5	
York Sample ID			05080907-15		05080907-16	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-STARs List	SW846-8260	ug/L	---	---	---	---
1,2,4-Trimethylbenzene			Not detected	1	Not detected	1
1,3,5-Trimethylbenzene			Not detected	1	Not detected	1
Benzene			Not detected	1	1	1
Ethylbenzene			Not detected	1	Not detected	1
Isopropylbenzene			Not detected	1	Not detected	1
Methyl-tert-butyl ether			18	1	430	1
Naphthalene			Not detected	1	Not detected	1
n-Butylbenzene			Not detected	1	Not detected	1
n-Propylbenzene			Not detected	1	Not detected	1
o-Xylene			Not detected	1	Not detected	1
p- & m- Xylenes			Not detected	1	Not detected	1
p-Isopropyltoluene			Not detected	1	Not detected	1
sec-Butylbenzene			Not detected	1	Not detected	1
tert-Butylbenzene			Not detected	1	Not detected	1
Toluene			Not detected	1	Not detected	1
Total Xylenes			Not detected	2	Not detected	2
STARs- Target Semi-Volatiles	SW846-8270	ug/L	---	---	---	---
Acenaphthene			Not detected	5.6	Not detected	5.6
Anthracene			Not detected	4.0	Not detected	4.0
Benzo[a]anthracene			Not detected	5.6	Not detected	5.6
Benzo[a]pyrene			Not detected	6.0	Not detected	6.0
Benzo[b]fluoranthene			Not detected	4.8	Not detected	4.8
Benzo[g,h,i]perylene			Not detected	6.8	Not detected	6.8
Benzo[k]fluoranthene			Not detected	11	Not detected	11
Chrysene			Not detected	5.6	Not detected	5.6

**YORK**

Client Sample ID	York Sample ID	Matrix	Parameter	Method	Units	Results	MDL	Results	MDL
MW-7R	05080907-18	WATER	Volatiles-STARS List	SW846-8260	ug/L	---	---	---	---
			1,2,4-Trimethylbenzene			24	1	3	1
			1,3,5-Trimethylbenzene			4	1	Not detected	1
			Benzene			420	1	2	1
			Ethylbenzene			4	1	Not detected	1
			Isopropylbenzene			5	1	Not detected	1
			Methyl-tert-butyl ether			190	1	79	1
			Naphthalene			Not detected	1	Not detected	1
			n-Butylbenzene			Not detected	1	Not detected	1
			n-Propylbenzene			5	1	Not detected	1
			o-Xylene			56	1	2	1
			p- & m- Xylenes			100	1	4	1
			p-Isopropyltoluene			Not detected	1	Not detected	1
			sec-Butylbenzene			Not detected	1	Not detected	1
			tert-Butylbenzene			Not detected	1	Not detected	1
			Toluene			15	1	Not detected	1
			Total Xylenes			156	2	6	2

Client Sample ID	York Sample ID	Matrix	Parameter	Method	Units	Results	MDL	Results	MDL
MW-4R	05080907-15	WATER	Dibenz[a,h]anthracene			Not detected	5.6	Not detected	5.6
			Fluoranthene			Not detected	4.8	Not detected	4.8
			Fluorene			Not detected	4.8	Not detected	4.8
			Indeno[1,2,3-cd]pyrene			Not detected	6.4	Not detected	6.4
			Naphthalene			Not detected	4.8	Not detected	4.8
			Phenanthrene			Not detected	5.6	Not detected	5.6
			Pyrene			Not detected	6.8	Not detected	6.8
			PCB	SW846-3510C/8082	ug/L	---	---	---	---
			PCB 1016			Not detected	0.80	Not detected	0.80
			PCB 1221			Not detected	0.80	Not detected	0.80
			PCB 1232			Not detected	0.80	Not detected	0.80
			PCB 1242			Not detected	0.80	Not detected	0.80
			PCB 1248			Not detected	0.80	Not detected	0.80
			PCB 1254			Not detected	0.80	Not detected	0.80
			PCB 1260			Not detected	0.80	Not detected	0.80
			PCB, Total			Not detected	0.80	Not detected	0.80
			Dissolved RCRA Metals	SW846	mg/L	---	---	---	---
			Arsenic, dissolved			Not detected	0.010	Not detected	0.010
			Barium, dissolved			0.207	0.005	0.180	0.005
			Cadmium, dissolved			Not detected	0.005	Not detected	0.005
			Chromium, dissolved			Not detected	0.005	0.007	0.005
			Lead, dissolved			Not detected	0.005	Not detected	0.005
			Selenium, dissolved			Not detected	0.010	Not detected	0.010
			Silver, dissolved			Not detected	0.005	Not detected	0.005
			Mercury, Dissolved	SW-846-7470	mg/L	Not detected	0.002	Not detected	0.002

**YORK**

Client Sample ID	York Sample ID	Matrix	Parameter	Method	Units	Results	MDL	Results	MDL
MW-10	05080907-20	WATER	WATER			Not detected		Not detected	
MW-9	05080907-19	WATER	WATER			Not detected		Not detected	
				SW846-8260	ug/L	---	---	---	---
			Volatiles-STARs List			Not detected		Not detected	
			1,2,4-Trimethylbenzene			Not detected		Not detected	
			1,3,5-Trimethylbenzene			Not detected		Not detected	
			Benzene			Not detected		Not detected	
			Ethylbenzene			Not detected		Not detected	
			Isopropylbenzene			Not detected		Not detected	
			Methyl-tert-butyl ether			400		300	
			Naphthalene			Not detected		Not detected	
			n-Butylbenzene			Not detected		Not detected	
			n-Propylbenzene			Not detected		Not detected	

Client Sample ID	York Sample ID	Matrix	Parameter	Method	Units	Results	MDL	Results	MDL
MW-7R	05080907-18	WATER	WATER			Not detected		Not detected	
MW-6	05080907-17	WATER	WATER			Not detected		Not detected	
				SW846-8270	ug/L	---	---	---	---
			STARs-Target Semi-Volatiles			Not detected		Not detected	
			Acenaphthene			Not detected		Not detected	
			Anthracene			Not detected		Not detected	
			Benzo[a]anthracene			Not detected		Not detected	
			Benzo[a]pyrene			Not detected		Not detected	
			Benzo[b]fluoranthene			Not detected		Not detected	
			Benzo[ghi]perylene			Not detected		Not detected	
			Benzo[k]fluoranthene			Not detected		Not detected	
			Chrysene			Not detected		Not detected	
			Dibenz[a,h]anthracene			Not detected		Not detected	
			Fluoranthene			Not detected		Not detected	
			Fluorene			Not detected		Not detected	
			Indeno[1,2,3-cd]pyrene			Not detected		Not detected	
			Naphthalene			Not detected		Not detected	
			Phenanthrene			Not detected		Not detected	
			Pyrene			Not detected		Not detected	
			PCB	SW846-3510C/8082	ug/L	---	---	---	---
			PCB 1016			Not detected		Not detected	
			PCB 1221			Not detected		Not detected	
			PCB 1232			Not detected		Not detected	
			PCB 1242			Not detected		Not detected	
			PCB 1248			Not detected		Not detected	
			PCB 1254			Not detected		Not detected	
			PCB 1260			Not detected		Not detected	
			PCB, Total	SW846	mg/L	Not detected		Not detected	
			Arsenic, dissolved			Not detected		Not detected	
			Barium, dissolved			0.243		0.005	
			Cadmium, dissolved			Not detected		Not detected	
			Chromium, dissolved			Not detected		Not detected	
			Lead, dissolved			Not detected		Not detected	
			Selenium, dissolved			Not detected		Not detected	
			Silver, dissolved			Not detected		Not detected	
			Mercury, Dissolved	SW-846-7470	mg/L	Not detected		Not detected	

Client Sample ID			MW-9		MW-10	
York Sample ID			05080907-19		05080907-20	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
o-Xylene			Not detected	1	3	1
p- & m- Xylenes			Not detected	1	6	1
p-Isopropyltoluene			Not detected	1	Not detected	1
sec-Butylbenzene			Not detected	1	Not detected	1
tert-Butylbenzene			Not detected	1	Not detected	1
Toluene			Not detected	1	Not detected	1
Total Xylenes			Not detected	2	9	2
<b>STARS- Target Semi-Volatiles</b>	SW846-8270	ug/L	---	---	---	---
Acenaphthene			Not detected	5.6	Not detected	5.6
Anthracene			Not detected	4.0	Not detected	4.0
Benzo[a]anthracene			Not detected	5.6	Not detected	5.6
Benzo[a]pyrene			Not detected	6.0	Not detected	6.0
Benzo[b]fluoranthene			Not detected	4.8	Not detected	4.8
Benzo[g,h,i]perylene			Not detected	6.8	Not detected	6.8
Benzo[k]fluoranthene			Not detected	11	Not detected	11
Chrysene			Not detected	5.6	Not detected	5.6
Dibenz[a,h]anthracene			Not detected	5.6	Not detected	5.6
Fluoranthene			Not detected	4.8	Not detected	4.8
Fluorene			Not detected	4.8	Not detected	4.8
Indeno[1,2,3-cd]pyrene			Not detected	6.4	Not detected	6.4
Naphthalene			Not detected	4.8	Not detected	4.8
Phenanthrene			Not detected	5.6	Not detected	5.6
Pyrene			Not detected	6.8	Not detected	6.8
<b>PCB</b>	SW846-3510C/8082	ug/L	---	---	---	---
PCB 1016			Not detected	0.80	Not detected	0.80
PCB 1221			Not detected	0.80	Not detected	0.80
PCB 1232			Not detected	0.80	Not detected	0.80
PCB 1242			Not detected	0.80	Not detected	0.80
PCB 1248			Not detected	0.80	Not detected	0.80
PCB 1254			Not detected	0.80	Not detected	0.80
PCB 1260			Not detected	0.80	Not detected	0.80
PCB, Total			Not detected	0.80	Not detected	0.80
<b>Dissolved RCRA Metals</b>	SW846	mg/L	---	---	---	---
Arsenic, dissolved			Not detected	0.010	Not detected	0.010
Barium, dissolved			0.215	0.005	0.248	0.005
Cadmium, dissolved			Not detected	0.005	Not detected	0.005
Chromium, dissolved			Not detected	0.005	Not detected	0.005
Lead, dissolved			Not detected	0.005	Not detected	0.005
Selenium, dissolved			Not detected	0.010	Not detected	0.010
Silver, dissolved			Not detected	0.005	Not detected	0.005
Mercury, Dissolved	SW-846-7470	mg/L	0.0003	0.0002	Not detected	0.0002

Units Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb


For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

**YORK**

**Notes for York Project No. 05080907**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

  
Robert Q. Bradley  
Managing Director

Date: 9/8/2005

**YORK**

## Field Chain-of-Custody Record

Company Name

DT Consulting Services  
 115 West Park, New York

Report To:

Deborah Thompson

Invoice To:

Same

Project ID/No.

B Millers Eng'g, Inc.  
 Kingston, NY

Samples Collected By (Signature)

Deborah Thompson

Name (Printed)

Deborah Thompson

Sample No.

001

Location/ID

SB1 0-5.5'

Date Sampled

8/29/05

Sample Matrix

Water Soil Air OTHER

✓

ANALYSES REQUESTED

RCRA Metals, PCBs (8052)  
 (a) 402  
 8021W/MTRC-STARS-8376 B/N-Stars (a) 302

Container Description(s)

010

SB6 0-2'

009

SB5 4-8'

008

SB5 0-4'

007

SB4 0-3.5'

006

SB3 4-5.2'

005

SB3 2-4'

004

SB3 0-2'

003

SB2 0-3.5'

002

SB1 5.5-8'

### Chain-of-Custody Record

Bottles Relinquished from Lab by

Date/Time

Date/Time

Sample Relinquished by

Date/Time

Deborah Thompson 8/30/05

Sample Received in LAB by

Date/Time

Sample Received by

Date/Time

Deborah Thompson 8/30/05

Comments/Special Instructions

Some Analytes on all soil samples

Turn-Around Time

Standard

RUSH(define)



Company Name  
DT Consulting Services  
Ulster Park, NY

Report To:  
Deborah Thompson

Invoice To:  
Same

Project ID/No.  
B. Willens Sns, Inc.

Samples Collected By (Signature)  
Name (Printed)  
Deborah Thompson

## Field Chain-of-Custody Record

Sample No.	Location/ID	Date Sampled	Sample Matrix				ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air	OTHER		

011	SB6 2-4'	8/29/05	✓				RCRA Metals, PCBs (DDTA) (a) 402 8021 u/MTR, S.MTS, 8370 B/M STMS (a) 202	
012	SB6 4-6'				✓		RCRA Metals, PCBs (DDTA) (a) 401 HCl dissolved RCRA Metals, PCBs (DDTA) 8021 u/MTR, S.MTS, 8370 B/M STMS (D) IL	

013	MW-1		✓					
014	MW-2		✓					
015	MW-4R		✓					
016	MW-5		✓					
017	MW-6		✓					
018	MW-7R		✓					
019	MW-9		✓					
020	MW-16		✓					

Chain-of-Custody Record			
Bottles Relinquished from Lab by	Date/Time	Bottles Received in Field by	Date/Time
Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time
Deborah Thompson 8/30/05		Deborah Thompson 8/30/05	
Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time
		Deborah Thompson 8/30/05	

Comments/Special Instructions  
Some analysis on all gas samples

Standard RUSH(define)  
Turn-Around Time

***ATTACHMENT B***

**DT CONSULTING SERVICES, INC.**

# **Environmental Services Health & Safety Plan**

**Job Name:** B. Millens & Sons, Inc.

- 1.0 Introduction
- 2.0 Organizational Structure
  - 2.1 Safety and Health Manager
  - 2.2 Site Safety and Health Office
    - 2.2.1 Responsibilities
- 3.0 Personal Protective Equipment
  - 3.1 Protection Levels
    - 3.1.1 Level A
    - 3.1.2 Level B
    - 3.1.3 Level C
    - 3.1.4 Level D
- 4.0 Work Zones
  - 4.1 Exclusion Zone
  - 4.2 Contamination Reduction Zone
  - 4.3 Support Zone
- 5.0 Air Monitoring
- 6.0 Site Communications
- 7.0 Emergency Procedures
  - 7.1 Injury in the exclusion zone
  - 7.2 Injury in the support zone
  - 7.3 Fire or explosion
  - 7.4 Protective equipment failure
- 8.0 Standard Safety Practices
- 9.0 Daily Safety Meetings
- 10.0 Site Specific Plan
  - 10.1 Detailed site information
  - 10.2 Contaminants on site
  - 10.3 Emergency Information
    - 10.3.1 Emergency Responders
      - 10.3.1.1 Hospital
      - 10.3.1.2 Emergency telephone numbers
      - 10.3.1.3 Regulatory agencies
  - 10.4 First Aid
  - 10.5 Work Zones
    - 10.5.1 Command post
  - 10.6 Site Communications
    - 10.6.1 Telephone

- 10.6.2 Hand Signals**
- 10.7 Environmental Monitoring**
- 10.8 Personal Protective Equipment**
  - 10.8.1 Exclusion zone**
  - 10.8.2 Contamination reduction corridor**
- 10.9 Decontamination**
  - 10.9.1 Decontamination Procedure**

**11.0 Key Personnel**

**12.0 Work Plan**

- 12.1 Job objective / Detailed work plan**

## **1.0 INTRODUCTION**

DT Consulting Services, Inc. (DTCS) has designed a safety and health program to provide its employees with the guidelines necessary to ensure their own safety and health as well as that of the surrounding community. The goal of this plan is to minimize the risk of illness or injury during remedial procedures including the excavation and disposal of petroleum contaminated soils.

## **2.0 ORGANIZATIONAL STRUCTURE**

### **2.1 SAFETY AND HEALTH MANAGER**

It is the responsibility of the safety and health manager to develop the comprehensive safety and health plan. The safety and health manager will be apprised of any changes in the comprehensive safety and health plan as well as all site-specific procedural determinations. The safety and health manager for this project will be Ms. Deborah Thompson.

#### **2.1.1 RESPONSIBILITIES**

- a) Initial site evaluation
- b) Hazard identification
- c) Determination of appropriate protection levels
- d) Conduct daily safety and health meetings
- e) Supervision of site sampling and monitoring
- f) Supervision of decontamination procedures
- g) Designate work zones to maintain site integrity

## **3.0 PERSONAL PROTECTIVE EQUIPMENT**

The proper personal protective equipment is chosen by the site safety and health officer in consultation with the safety and health manager. The level of protection is dependent on the hazards that are likely to be encountered on-site.

### **3.1 PROTECTION LEVELS**

DTCS utilizes four levels of protection as set forth in the OSHA guidelines, Appendix B of 1910.120.

### **3.1.1 Level A**

Level A provides the greatest level of skin, respiratory, and eye protection with the following minimum equipment:

- Full face, self-contained breathing apparatus (SCBA) or supplied air with escape SCBA
- Fully encapsulated chemical resistant suit
- Chemical resistant boots
- Chemical resistant inner and outer gloves

### **3.1.2 Level B**

Level B provides the greatest level of respiratory protection, but a lower level of skin protection than Level A with the following minimum equipment:

- Full face SCBA or supplied air with escape SCBA
- Chemical resistant clothing
- Chemical resistant inner and out gloves
- Chemical resistant boots

### **3.1.3 Level C**

Level C provides the same level of skin protection as Level B, but a lower level of respiratory protection with the following minimum equipment:

- Full face piece air purifying respirator with appropriate cartridge. Cartridges are chosen based on knowledge of hazardous material
- Chemical resistant clothing
- Chemical resistant inner and outer gloves
- Chemical resistant boots

### **3.1.4 Level D**

Level D provides the lowest level of skin protection and no respiratory protection with the following minimum equipment:

- Coveralls
- Safety boots
- Gloves
- Safety glasses or splash goggles

## **4.0 WORK ZONES**

DTCS utilizes the standard three-zone approach to site control. These zones are the exclusion zone, the contamination reduction zone and the support zone. Movement of personnel and equipment through these zones shall be strictly regulated in order to prevent contamination of clean environments and to protect workers in the support zone from possible exposure.

### **4.1 EXCLUSION ZONE**

The exclusion zone is the area of highest contamination. All personnel entering this zone must wear the appropriate level of protection as prescribed in the site specific safety plan. The outer boundary of the exclusion zone, referred to as the Hotline, shall be determined based upon such considerations as; extent of surface contamination, safe distance in the case of fire or explosion, physical area necessary for workers to conduct operations in a safe manner and safe distance in the event of vapor or gas emissions. Upon determination, the Hotline shall be visibly marked and secured to prevent accidental entry by unauthorized personnel.

### **4.2 CONTAMINATION REDUCTION ZONE**

The Contamination Reduction Zone is the area between the exclusion zone and the support zone. Its purpose is to protect the clean environment from contamination as workers enter and exit the exclusion zone. The outer boundary of this zone is referred to as the Coldline and shall be clearly marked. Decontamination stations shall be set up in this zone in a line known as the contamination reduction corridor. All personnel exiting the exclusion zone must follow the steps as prescribed in the decontamination procedures prior to re-entering the support zone.

### **4.3 SUPPORT ZONE**

The support zone is the area furthest away from the exclusion zone. It is considered a clean, non-contaminated area where workers need not wear any protective equipment. The command post, equipment trailer, first aid station and lavatory facilities are all located in this area. This area is not, however, open to traffic. Only authorized personnel may enter.



## **5.0 AIR MONITORING**

Air monitoring procedures will be designed prior to site entry based on the contaminants believed to be present. Upon initial site evaluation, the monitoring procedure can be modified. A specific Community Air Monitoring Plan (CAMP) has been developed for this site and may be referenced in **Attachment B**.

## **6.0 SITE COMMUNICATIONS**

Various methods of communication will be employed based upon site conditions and work zones. Regardless of method of communication, personnel working in the exclusion zone will remain within constant view of support crews.

DTCS has a network of devices to aid in communications. All or some of the following devices may be used depending upon job site requirements; hand held radios, headset transistor walkie-talkies and cellular telephones.

The following hand signals shall be standardized for use in emergencies and in event of radio communication breakdown.

- Hand gripping throat - out of air, can't breathe
- Grip partner's wrist - leave area immediately
- Hands on top of head - need assistance
- Thumbs up - I am all right, okay
- Thumbs down - no, negative

Horn blasts may be used to gain the immediate attention of crews to indicate that dangerous conditions exist.

## **7.0 EMERGENCY PROCEDURES**

The following procedures shall be followed by all site personnel in the event of an emergency. Any changes to this procedure shall be noted in the site-specific plan. In all situations where there has been an evacuation of exclusion zone, reentry shall not be permitted until the following conditions have been met; the cause of the emergency has been determined and corrected, the site hazards have been reassessed, the safety plan has been reviewed and all personnel have been apprised of any changes.

## **7.1 INJURY IN THE EXCLUSION ZONE**

In the event of an injury in the exclusion zone, the emergency signal shall be sounded. All personnel in the exclusion zone will assemble at the contamination reduction corridor. First aid procedures will begin on-site and if necessary, an ambulance will be called. No personnel will be allowed to re-enter the exclusion zone until the exact nature and cause of the injury has been determined.

## **7.2 INJURY IN THE SUPPORT ZONE**

In the event of an injury in the support zone, on-site first aid procedures will begin immediately and an ambulance called if necessary. The site safety and health officer shall determine if the nature and cause of the injury or loss of the injured person will jeopardize the smooth running of the operations. If so, the emergency signal will be sounded and all personnel will follow the same procedure as outline above.

## **7.3 FIRE OR EXPLOSION**

In the event of fire or explosion, the emergency signal shall be sounded and all personnel will assemble at the contamination reduction corridor. The fire department will be called and all personnel will be evacuated to a safe distance.

## **7.4 PROTECTIVE EQUIPMENT FAILURE**

In the vent of protective equipment failure, the affected worker and his/her buddy will leave the exclusion zone immediately. In the event of any other equipment failure, the site safety and health officer will determine if this failure affects the operation. If so, the emergency signal will be sounded and all personnel will leave the exclusion zone until such time as it is deemed safe.

## **8.0 STANDARD SAFETY PRACTICES**

The following guidelines will be followed by all personnel at all times, any changes must be approved by the safety and health manager.

- All employees will attend the daily safety meetings prior to site entry.

- The buddy system will be utilized at all times.
- There will be no eating, drinking, smoking, or use of smoking material (i.e. matches) within the work area(s).
- Only authorized personnel will be allowed in designated work zones and will wear the proper personal protective clothing and equipment as prescribed in the site safety plan.
- The site safety and health officer will be apprised of any unusual circumstances immediately.

Such circumstances include but are not limited to the following; unusual odors, emissions, signs of chemical reaction, and discovery of conditions or substances not mentioned in the site safety plan. The site safety officer will then determine if these conditions warrant a shut down of operations.

## **9.0 DAILY SAFETY MEETINGS**

Daily safety meetings will be conducted by the site safety and health officer prior to commencement of work. All personnel, regardless of job classification are required to attend.

### **9.1 DISCUSSIONS**

1. Overview of safety and health plan.
2. Detailed discussion of substances of concern with emphasis on exposure limits, exposure symptoms and exposure hazards.
3. Review of standard safety precautions and work practices.
4. Review of work plan.
5. Review of hand signals and emergency signals.

Personnel will sign a daily attendance sheet, which shall include an overview of the topics discussed.

## **10.0 SITE SPECIFIC PLAN**

## 10.1 DETAILED SITE INFORMATION

- **Plan Date** TBA
- **Job Name** B. Millens Sons, Inc.
- **Client** B. Millens Sons, Inc.
- **Client Contact/Phone Number** B. Millens – (845) 331-7600
- **Site Address** B. Millens Sons, Inc.  
PO BOX 1940/290 E. Strand  
Kingston, New York
- **Cross Street** North Street
- **Site Access** Direct

## 10.2 CONTAMINANTS ON SITE

**SUBSTANCE:** Volatile Organic Compounds

**MSDS ATTACHED?** No

**CONCENTRATION:** N/A

**PRIMARY HAZARD:** Skin and Eye Irritant

**EXPOSURE SYMPTOMS:** Contact Dermatitis

**FIRST AID INSTRUCTIONS** Flush Skin with Water.  
Remove to fresh air.

## 10.3 EMERGENCY INFORMATION

### 10.3.1 EMERGENCY RESPONDERS

#### 10.3.1.1 HOSPITAL

**Name:** Kingston Hospital

**Address & Telephone Number:**

396 Broadway, Kingston, NY 12401  
(845) 331-3131

**Distance from Site:** 2 Miles

**10.3.1.2 EMERGENCY TELEPHONE NUMBERS**

**Police** 911 on Cellular Phone

**Fire** 911 on Cellular Phone

**Ambulance** 911 on Cellular Phone

**10.3.1.3 REGULATORY AGENCIES**

**EPA Telephone Number** 1-800-424-8802

**NYSDEC Spills Hotline** 1-800-457-7362

**10.4 FIRST AID**

First Aid available at the following stations:

First Aid Kit TRUCK

Emergency Eye Wash TRUCK & ON SITE

**10.5 WORK ZONES**

**10.5.1 COMMAND POST**

Command post will be mobile.

**10.6 SITE COMMUNICATIONS**

**10.6.1 TELEPHONE**

Command Post Telephone - Cellular Phone  
Number (845)943-0159

**10.6.2 HAND SIGNALS**

See Section 6.0

**10.7 ENVIRONMENTAL MONITORING**

**10.7.1 MONITORING EQUIPMENT**

Refer to CAMP in Attachment B

**10.8 PERSONAL PROTECTIVE EQUIPMENT**

**10.8.1 EXCLUSION ZONE, PROTECTION  
LEVEL**

<b>PROTECTIVE EQUIPMENT:</b>	Level D
<b>RESPIRATORY</b>	None
<b>HANDS</b>	Leather
<b>FEET</b>	Steel Toed Boots
<b>SUIT</b>	None

**10.8.2 CONTAMINATION REDUCTION  
CORRIDOR (DECON LINE)**

<b>PROTECTIVE EQUIPMENT:</b>	Level D
<b>RESPIRATORY</b>	None
<b>HANDS</b>	Leather
<b>FEET</b>	Steel Toed
<b>SUIT</b>	None

**10.9 DECONTAMINATION**

**10.9.1 DECONTAMINATION PROCEDURE**

STATION 1 SOAPY WATER

STATION 2 WATER

## **11.0 KEY PERSONNEL**

### **SAFETY AND HEALTH MANAGER / ON-SITE SUPERVISOR**

Deborah J. Thompson

### **FOREMEN**

TBA

### **FIELD PERSONNEL**

Will Vary

## **12.0 WORK PLAN**

### **12.1 JOB OBJECTIVE**

The objective is to execute a remedial action plan which includes petroleum contaminated soil excavation, staging, testing and disposal. Upon completion of field work, construction activities including the installation of a clay liner, concrete matt and storm water treatment system are to be performed in accordance with the Remedial Action Plan.

*ATTACHMENT C*



**DT CONSULTING SERVICES, INC.**

# **Community Air Monitoring Plan**

**Job Name:** B. Millens & Sons, Inc.

## **COMMUNITY AIR MONITORING PROGRAM (CAMP)**

### **1.0 INTRODUCTION**

The objective of this Community Air Monitoring Program (CAMP) is to monitor air quality during remedial procedures within designated work areas at the B. Millens Sons, Inc. facility. Such a program will provide real time data for the documentation of volatile organic compounds (VOC's) and fine particulates (i.e. dust) at select locations surrounding the active remedial locale. By continuously monitoring air quality during intrusive site activities (and periodically for non-intrusive activities), the CAMP ensures a level of protection to the downwind community from airborne contaminant releases. All work will be performed in accordance to methods or their equivalents as contained in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation DER-10 – *Technical Guidance for Site Investigation and Remediation, Appendix 1A*.

As mutually agreed upon by B. Millens & Sons, Inc. and the NYSDEC, remedial actions at the facility will be performed in sections, beginning in the north and southeastern quadrants of the facility. These areas are typically utilized for automobile dismantling and storage, petroleum bulk storage (PBS), along with the temporary staging of ferrous metal (when necessary). Although remedial efforts are being performed in a sectional pattern, the following CAMP will provide air monitoring procedures to be employed during remedial efforts across the site. If deemed necessary, revisions to the CAMP will be made pending remedial efforts and the nature of contamination in a specific area of the B. Millens Sons, Inc. facility. In addition to analysis and sampling methodologies to be utilized on the subject parcel, common-sense measures to maintain minimal VOC, dust and/or odor levels will also be employed around the work areas to the extent practical.

#### **1.1 Site Location and Description**

This CAMP provides site specific information on the air monitoring plan to be utilized during remedial procedures at the B. Millens Sons, Inc. facility located at 230 East Strand, Kingston, Ulster County, New York. The ±1.71-acre parcel is located on the south side of East Strand, approximately 100 feet from the shore (mean water level) of the Roundout Creek. The property is bounded on the east by North Street, on the south by a railroad right of way (ROW), on the west by a commercial property and on the north by East Strand. Most land use in the immediate vicinity of the subject parcel is employed for industrialized use. The site and surrounding properties are connected to central water and sewer systems according to City of Kingston records. No groundwater supply wells are known to be present on the subject property or on adjoining properties.

The facility is an operating scrap metal recycling facility. Improvements include a single permanent structure which is utilized for the purpose of storage and provides office space for administrative details. The exterior portions of the property are employed to process and store various segregated metals.

## **2.0 AIR MONITORING PROCEDURES**

### **2.1 Ground Intrusive – Continuous Monitoring**

While performing ground intrusive remedial efforts on the subject property such as soil excavation, monitoring well installation, etc., continuous monitoring will be performed and recorded for State (DEC and DOH) personnel review. Both VOC and particulate monitoring will be performed at appropriate intervals at an upwind locale and downwind of the exclusion zone.

#### **2.1.1 VOC Monitoring, Response Levels, and Actions**

Contaminants known to be present within the immediate work area or exclusion zone include volatile organic compounds or specifically, petroleum hydrocarbons. Thus, the appropriate equipment to be employed for monitoring VOC levels would include the use of a photoionization detector or PID. As most petroleum products contain volatile organic compounds, PID screening can indicate the presence of volatile organics within a select sample. The Mini-Rae PID recommended to monitor VOC's during remedial actions at the B. Millens Sons, Inc. facility would be calibrated to 100 parts-per-million (ppm) isobutylene standard at the beginning of each workday. The PID, with data logging features, will record upwind concentrations at the start of each workday as well as periodically throughout the performance of daily activities. Alternatively, immediately downwind of the exclusion zone, continuous VOC monitoring would be conducted and be recorded at 15-minute run average concentrations. As per NYSDEC DER-10, VOC levels would subsequently be compared to trigger levels as specified below which may require further action. Published guidelines are as follows:

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 ppm above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total VOC level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.

- If VOC's at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective action taken to abate emissions, and monitoring continued. After these steps, work activities would resume provided that the total VOC level 200 feet downwind of the exclusion zone or half of the distance to the nearest potential receptor or residential/commercial structure, whichever is less-but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, all activities will be shut down and appropriate actions taken.

The NYSDEC will be notified as promptly as reasonably possible of any exceedance of a target air quality level and will be notified promptly of any corrective actions taken in connection with such an exceedance. As stated previously, all recordings are to be maintained in a field log and will be available for review and approval by State agencies when requested.

#### **2.1.2 Particulate Monitoring, Response Levels, and Actions**

Temporary particulate monitoring stations will be maintained during remedial procedures conducted at the B. Millens Sons, Inc. facility for the purpose of continuously measuring particulate matter (PM) at upwind locations and downwind of the exclusion zone. Specific recording equipment utilized to perform PM will include the use of real time area aerosol monitors, like the DataRAM or equivalent equipped with a PM-10 inlet head to measure particulate matter less than 10 micrometers in size. In addition to particulate detection, the monitoring equipment will be integrating over a 15 minute (or less) period for comparison to the targeted airborne particulate action level. If the action level is exceeded during monitoring procedures, an audible alarm will activate to notify the technician of an exceedance. Pursuant to NYSDEC DER-10 guidance, the following particulate response levels will be utilized while performing remediation on the subject property:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques (such as lightly misting the excavation surface) would be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate concentrations do not exceed 150  $\text{mcg}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m<sup>3</sup> above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures or other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m<sup>3</sup> of the upwind level and in preventing visible dust migration.

The NYSDEC will be notified as promptly as reasonably possible of any exceedance of a target air quality level and will be notified promptly of any corrective actions taken in connection with such an exceedance. As stated previously, all recordings are to be maintained in a field log and will be available for review and approval by State agencies when requested.

## **2.2 Non intrusive – Periodic Monitoring**

Non intrusive activities performed in relation to the B. Millens Sons, Inc. facility would most typically include groundwater sampling from the existing monitoring wells or surficial soil sampling at locations within the property boundaries. Periodic monitoring could be performed during these events if deemed necessary by the NYSDEC or NYSDOH, although noticeable VOC vapors have not been detected during any non intrusive field activity as conducted by DT Consulting Services, Inc. (DTCS) personnel to date.

Monitoring protocol to be executed during non intrusive site activities would include the use of a PID to record VOC concentrations during sample collection at the following intervals:

- Upon arrival at the sampling location.
- While opening a monitoring well cap.
- While overturning the soil.
- During the purging of well contents.
- Upon departure from the sampling location.

The NYSDEC will be notified as promptly as reasonably possible of any exceedance of a target air quality level and will be notified promptly of any corrective actions taken in connection with such an exceedance. As stated previously, all recordings are to be maintained in a field log and will be available for review and approval by State agencies when requested.

*ATTACHMENT D*

**1. PRODUCT NAME**

CLAYMAX<sup>®</sup> LC Liner System for Liquid Containment

**2. MANUFACTURER**

Clem Environmental Corporation  
P.O. Box 88, Gordon Road  
Fairmount, Georgia 30139  
Phone: (404) 337-5316  
(312) 321-6255 (in IL)  
FAX: (404) 337-2215  
(312) 321-6258 (in IL)  
Telex: 543408

**3. PRODUCT DESCRIPTION**

**Basic Use:** CLAYMAX<sup>®</sup> LC liner is a specially constructed, flexible, impermeable liner system which utilizes the mineral, sodium bentonite clay, and the geotextile polypropylene. Sodium bentonite is a high-swelling smectite which gives CLAYMAX<sup>®</sup> LC liner the ability to heal itself if ripped or punctured. In a hydrated state, the clay has tremendous impermeability and a great resistance to chemicals—acids, bases and hydrocarbons. The bentonite swells to form an impermeable barrier upon contact with water or leachates.

CLAYMAX<sup>®</sup> LC liner system can be used in construction applications for the containment or exclusion of liquid. These applications include fresh water ponds, waste lagoons, municipal landfills (including caps), tank farm containments, earthen irrigation canals, industrial containments and earthen dams.

Seaming is accomplished by a simple overlap with adjoining material since the hydrated bentonite swells to form an impermeable bond. Minor damage is self-healing and major cuts or tears are easily and effectively repaired using patches of CLAYMAX<sup>®</sup> LC liner material.

CLAYMAX<sup>®</sup> LC liner is manufactured 13.5 feet wide and 82 feet long rolled on cardboard cores. This allows for easy handling at the job site. Longer material can be furnished upon request. No special seaming tools or fasteners are required and CLAYMAX<sup>®</sup> LC liner's flexibility speeds installation. The material can be cut with

a utility knife to fit around protrusions (pipes, tanks, etc.).

CLAYMAX<sup>®</sup> LC liner is designed for fast installation with a minimum amount of manpower, equipment and site preparation on both large and small job sites. It affords a maximum of containment protection with none of the problems usually associated

**SPEC DATA**

This Spec-Data sheet conforms to editorial style prescribed by The Construction Specifications Institute. The manufacturer is responsible for technical accuracy.

<b>Product Specification (Typical)—CLAYMAX<sup>®</sup> LC</b>		
Bentonite Content	1.0 lb. per square foot	
Thickness	1/4 inch	
Liner Dimensions	13.5 feet x 82 feet	
Effective Area Covered	1059.5 square feet (assume 6" overlap along one side and one end)	
Roll Weight/Unit	1130 lbs. (minimum)	
Permeability Coefficient	2 x 10 <sup>-10</sup> cm per second (at .35" head pressure)	
*Longer rolls available on special order.		
<b>Laboratory Test Data</b>		
Procedure—Six inches of sand covering CLAYMAX <sup>®</sup> LC liner in a triaxial cell under thirty-five feet of water head pressure.		
<b>Group</b>	<b>Permeant</b>	<b>Permeability</b>
Water	De-Aired Water	2 x 10 <sup>-10</sup> cm/sec
Salt	Seawater	2 x 10 <sup>-10</sup> cm/sec
Acid	Acetic Acid	2 x 10 <sup>-10</sup> cm/sec
	Phosphoric Acid	2 x 10 <sup>-9</sup> cm/sec
Calcium	Calcium Chloride	2 x 10 <sup>-9</sup> cm/sec
Alcohol	Ethyl Alcohol	2 x 10 <sup>-9</sup> cm/sec
Organics	Methylene Chloride	3 x 10 <sup>-10</sup> cm/sec
	#2 & #6 Fuel Oil	3 x 10 <sup>-9</sup> cm/sec
Leachate	Sewage BOD > 38,000	8 x 10 <sup>-10</sup> cm/sec
	Paper Pulp Sludge	2 x 10 <sup>-10</sup> cm/sec
Pressure	150 foot Water Head	1 x 10 <sup>-9</sup> cm/sec
Many more tests are available; contact CEC for more details. The above test performance data were produced under laboratory conditions. The actual performance characteristics may vary. No performance warranty is expressed or implied.		
<b>Packaging and Shipping</b>		
Roll Content	1107.0 square feet	
Roll Weight	1135 lbs. (approx.) wrapped	
Roll Size	14.5 feet long (PVC wrapped) x 18" diameter (approx.)	
<b>Material Specifications</b>		
<b>Primary Backing</b> (Typical Properties)—Polypropylene is nonbiodegradable and inert to most chemicals, acids and alkalis.		
Color	Natural white	
Filler Fiber	Nylon	
Substrate	24 x 10 Delustered woven polypropylene, non-toxic, water permeable	
Weight	4 oz. per square yard	
Tensile Strength	78 lbs. per inch (minimum)	
Grab Strength (ASTM D-1682)	Warp 95 lbs., Fill 70 lbs.	
Mullen Burst Strength (ASTM D774)	250.25 lbs. per square inch	
Puncture Strength (1/4" mandril ASTM D3787 MOD.)	249 lbs.	
Melting Point	329° F	
Elongation (ASTM D-1682)	Warp 15%, Fill 18%	
Shrinkage		
Hot Water	Nil	
Dry (20 min @ 270°F)	2%	
Cover Fabric	100% spunlace polyester; open weave allows for expansion of bentonite	
Weight	1 oz. per square yard	
Grab Strength	Warp 30 lbs., Fill 13.6 lbs.	
Burst Strength	35 lbs. per square inch	
Bentonite (Sodium Montmorillonite)		
Sizing	Specially graded, 6 mesh and 30 mesh granules	
Mineralogical Composition	90% Montmorillonite (min.)	
Adhesive	Water soluble, non-toxic	
Storage	On dry ground under roof or other protective covering	
The manufacturer reserves the right to change product specifications and instructions/limitations without notice. Information contained herein supersedes previously printed material (5/88).		

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May 1989  
Supersedes May 1988

with the other liner products. CLAYMAX<sup>®</sup> LC liner is flexible, self-sealing and is extremely resilient and damage resistant.

**Composition of Materials:** CLAYMAX<sup>®</sup> LC liner is a multi-layered liner system consisting of a layer of tough, durable and flexible heavy polypropylene, coated with sodium bentonite clay. The bentonite is covered with a layer of thin polyester open-weave scrim which protects the bentonite during transportation and installation.

**Sizes:** CLAYMAX<sup>®</sup> LC liner is supplied in rolled sheets. The material is 13.5 feet wide and 82 feet long. The material is rolled on 3½-inch cardboard cores. Special lengths may be ordered.

#### 4. TECHNICAL DATA

Refer to Specification Table on Page 1.

CLAYMAX<sup>®</sup> LC liner's active ingredient, natural sodium bentonite, has the ability to swell in the presence of water to a volumetric expansion of 15 times resulting in a 6-fold increase in weight. Actual installation swelling is controlled by the weight of aggregate or cover material to only 2 to 3 times the original volume. Further expansion is possible into any voids.

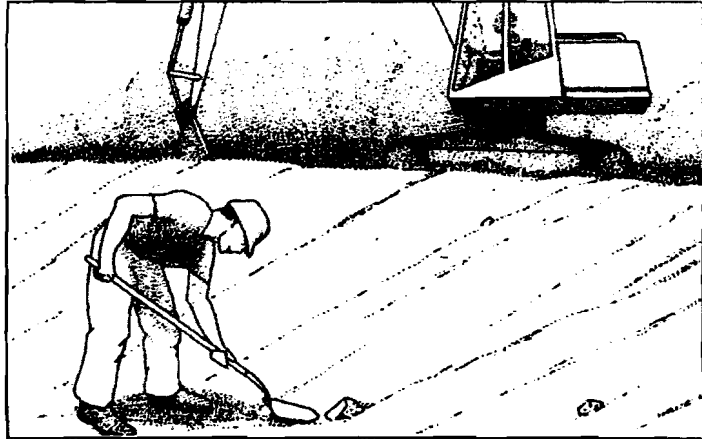
**Limitations:** CLAYMAX<sup>®</sup> LC liner material MUST be protected from ultraviolet light with 6-12 inches of backfill or aggregate. For ponds and lagoons, the aggregate on slopes should not exceed 12 inches. If backfill is used, it should be compacted with wheeled, rolling equipment.

Pond installations, with slopes greater than 2-to-1 and in excess of 20 feet, should be discussed with CEC.

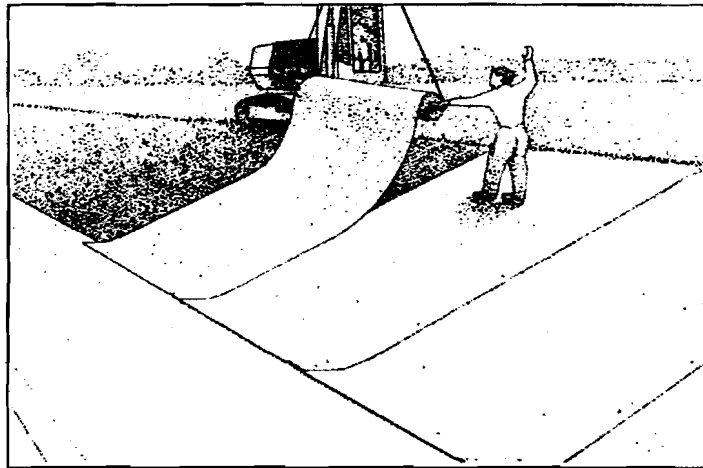
CLAYMAX<sup>®</sup> LC liner must be stored off the ground in a dry place.

In soils of high alkalinity, acidity or brine conditions (or other groundwater contamination), samples should be submitted to CEC for analysis. CEC will issue any necessary special installation instructions.

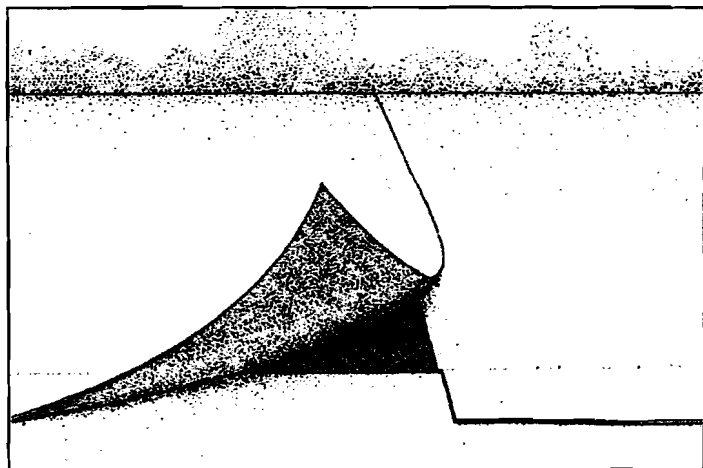
Where installation of CLAYMAX<sup>®</sup> LC liner must resist extreme hydrostatic pressure, a double layer may be required. Please consult CEC or your local



Site Preparation: Excavation should be well contoured; all rocks, vegetation and protrusions larger than 2 inches in diameter should be removed.

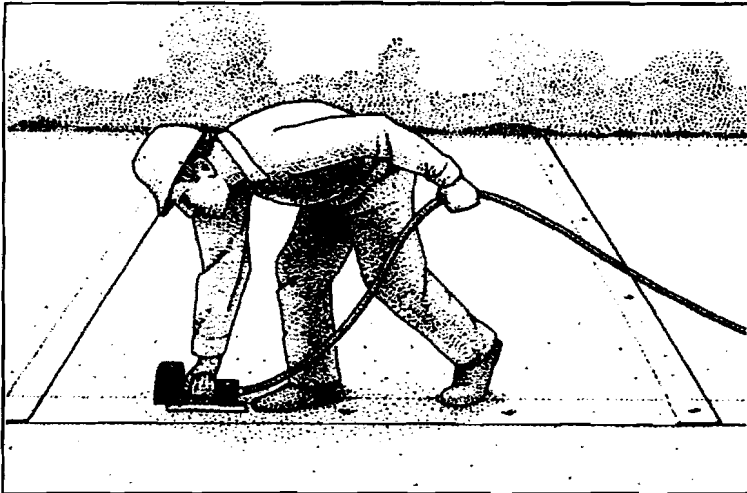


Installing adjoining rolls of CLAYMAX<sup>®</sup> LC requires a 6-inch overlap. All seaming on slopes must be vertical and perpendicular to the base.

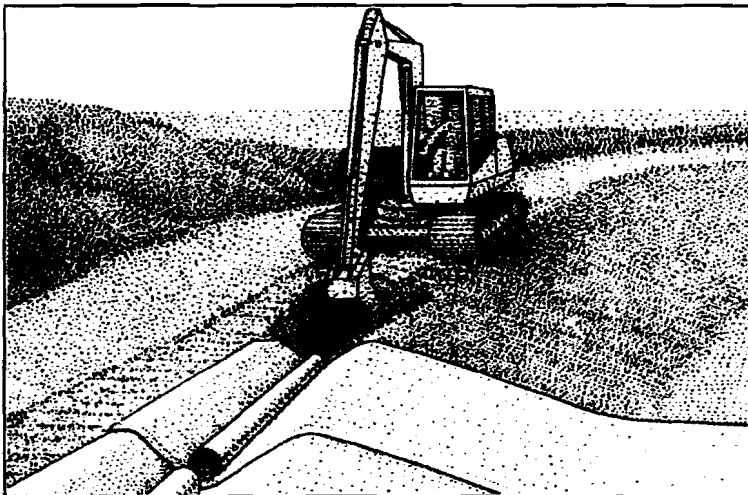


Detail of the 6-inch overlap; all soil must be removed from the overlap area of the liner to ensure a monolithic seal.

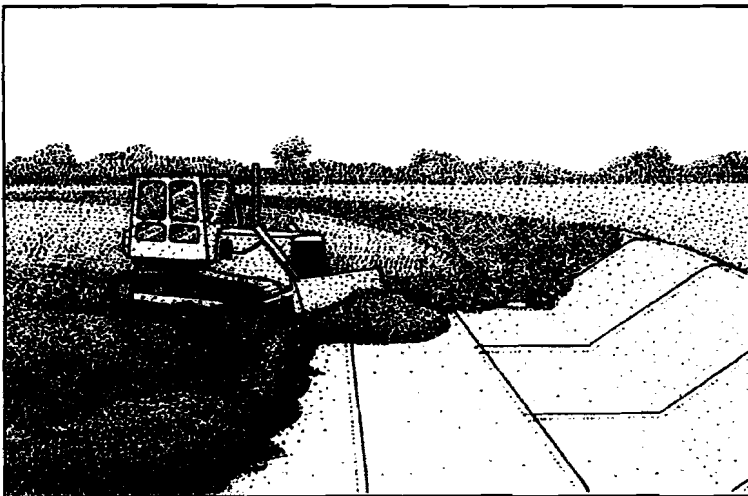




The 6-inch seams may be stapled or pinned to base soil to prevent seam opening during the backfill process.



Anchoring: Each CLAYMAX® LC roll must be locked into trenches at the top of the slope, covered with fill and compacted to prevent slippage.



Covering: Backfill should always be pushed forward with equipment operating on the backfill. Cover material (other than aggregate) should be compacted after placement.

distributor when this condition exists.

Special installation application procedures for CLAYMAX® LC liner must be approved, in writing, by the manufacturer prior to installation.

CLAYMAX® LC liner that has been damaged by precipitation prior to backfill protection **MUST BE REPLACED** if seal integrity is to be maintained.

## 5. INSTALLATION

**Site Preparation:** The pond, lagoon, tank farm enclosure or canal excavation dimensions should be determined to allow for final addition of the required 6-12 inches of soil or aggregate cover material. Ideally, the excavation should be well contoured with slopes that are a maximum of 3-to-1. All vegetation, protrusions and rocks larger than 2 inches in diameter should be removed, and the entire excavation should be compacted to 90% optimum density. Minor surface irregularities, however, can be accommodated. Compaction can be accomplished using either conventional rolling equipment or wheeled vehicles. Use of sheepsfoot rolling equipment is not recommended. A liner locking trench must be provided at the top of all slopes.

**Orientation:** It is essential to install CLAYMAX® LC liner so that all seams of the material laid on slopes are perpendicular to the pond bottom. This will prevent seam displacement during cover material placement.

**Anchoring:** All CLAYMAX® LC liner "runs" must be locked into trenches at the top of the slopes, covered with fill and compacted to prevent slippage. The locking trench should be 24 inches back horizontally from the top of the slope. The trench should have minimum depth of 18 inches and a width of at least 12 inches. Long, steep slopes may require a revised locking trench design.

**Seaming:** It is essential that the first and succeeding rolls of CLAYMAX® LC liner be pulled tight to smooth out creases or irregularities in the "runs". CLAYMAX® LC liner should always be installed with the polypropylene side up, showing the stenciled trademark CLAYMAX®. Once the

first "run" has been laid, adjoining "runs" need only be laid with a 6-inch overlap on each side. Be certain that all dirt is removed from the overlap area of the mat. The 6-inch seams may be stapled (with uncrimped staples) or pinned to the base soil to prevent seam opening during the installation process. In composite lining systems, the seams may be glued if required.

**Repairing:** Irregular shapes, cuts or tears in installed CLAYMAX<sup>®</sup> LC liner are easily accommodated by covering such areas with sufficient CLAYMAX<sup>®</sup> LC liner to provide a 6-inch overlap on all adjoining CLAYMAX<sup>®</sup> LC liner pieces. These repair pieces should be pinned or glued in place to hold the material until cover material has been placed.

**Covering:** Cover material should be applied as roll "runs" are completed to afford maximum protection against damage from personnel or equipment. Correctly installed, CLAYMAX<sup>®</sup> LC liner is sufficiently resilient to support installation personnel. Care should be exercised to prevent seam damage, and backfill should always be pushed forward with equipment operating on the backfill. Cover material should be compacted after placement.

**Handling Suggestions:** CLAYMAX<sup>®</sup> LC liner MUST be pulled from the top of the roll and installed polypropylene side UP. (This side is stenciled CLAYMAX<sup>®</sup>). The liner can be either pulled

from a roll suspended at the top of a slope, or the free end may first be secured in the locking trench and the suspended roll can be backed down the slope and across the excavation by the supporting vehicle. Suspending and unrolling CLAYMAX<sup>®</sup> LC liner is facilitated by inserting a heavy-duty, 3-inch diameter steel pipe (schedule 80 or heavier), through the 3½-inch cardboard core that CLAYMAX<sup>®</sup> LC liner is shipped on. This pipe should be 16 or 17 feet long to accommodate the hoisting chains from the lifting vehicle. The lifting vehicle may be wheeled power equipment with a front-end bucket. A spreader bar may be required to ensure roll clearance and to prevent damage to roll edges.

**Installation Precautions:** CAUTION—CLAYMAX<sup>®</sup> LC liner should not be installed in standing water or while heavy rain is falling.

#### 6. AVAILABILITY AND COST

**Availability:** CLAYMAX<sup>®</sup> LC Liquid Containment System is available through a worldwide network of distributors and approved installers. Contact the manufacturer or your local CLAYMAX<sup>®</sup> LC liner representative to order.

**Cost:** Material cost will vary depending on such factors as "point-of-use location." For current cost information, contact your local CLAYMAX<sup>®</sup> LC liner representative. For the name, ad-

dress and telephone number of the representative in your area, contact the manufacturer.

#### 7. WARRANTY

CLAYMAX<sup>®</sup> LC Liquid Containment System is normally warranted by the installing contractor who will make specific details available upon request.

#### 8. MAINTENANCE

No maintenance is required when CLAYMAX<sup>®</sup> LC liner is installed in accordance with the manufacturer's instructions; however, the protective cover layer (backfill) must be maintained and repaired as necessary.

#### 9. TECHNICAL SERVICES

Clem Environmental Corporation (CEC) will provide, on request, necessary technical assistance in the evaluation of installation applicability. On-site installation assistance is also available from the manufacturer.

#### 10. FILING SYSTEMS

SPEC-DATA<sup>™</sup> II

Sweets 02770/CLE, BuyLine 3526  
Additional information is available from the manufacturer upon request.

The information and recommendations contained herein are based on data which is believed to be reliable, but all such information and recommendations are given without guarantee or warranty.

#### CLAYMAX<sup>®</sup> LC LINER ADVANTAGES

- Economical and easy to install
- Minimal labor required
- All seams are simple 6-inch overlap
- Liner can be cut and trimmed with a utility knife
- Totally flexible
- No bentonite loss when cut or trimmed
- Self-healing/Self-sealing
- Minimum 1 lb. bentonite per square foot
- Natural sealant actuated by water or leachates

#### L.A. SALOMON INC.

A Süd-Chemie AG Company  
150 River Road, Bldg A-4  
Montville, NJ 07045  
(201) 335-8300

*ATTACHMENT E*

**DT CONSULTING SERVICES, INC.**

# **Liquids Management – Spill Prevention, Containment and Countermeasure Plan**

**Job Name:**                     B. Millens & Sons, Inc.

## **1.0 INTRODUCTION**

### **1.1 Purpose**

It is the expressed purpose of this Liquids Management - Spill, Prevention, Containment and Countermeasure (LM-SPCC) Plan (As adapted in part by Ecosystem Strategies, Inc. for B. Millens Sons, Inc.) to detail the procedures which will be put into effect and the emergency response protocol which will be adapted by the B. Millens Sons, Inc. site to properly handle fluids entering the site from scrap metal received and/or processed at the site and to minimize the likelihood of an intended release of petroleum or chemical liquids. The actions detailed in this SPCC Plan will be periodically reviewed by B. Millens personnel and/or the New York State Department of Environmental Conservation (NYSDEC) to ensure that on-site activities are consistent with applicable state and federal guidelines and regulations.

### **1.2 Site Location and Description**

This SPCC Plan provides information on the spill identification procedures and spill response protocol which will be followed at the B. Millens Sons, Inc. facility located at 290 East Strand, Kingston, Ulster County, New York. The subject property is located on the south side of East Strand, approximately 100 feet from the shore (mean water level) of the Roundout Creek.

The facility is an operating scrap metal recycling facility. Improvements include a single permanent structure which is utilized for the purpose of storage and provides office space for administrative details. The exterior portions of the property are employed to store various segregated metals.

## **2.0 LIQUIDS MANAGEMENT PROCEDURES**

The following actions will be implemented by personnel at the B. Millens Sons facility to properly collect and manage liquids generated during daily operations on-site. Liquids entering the site may be from open containers of scrap metal, vehicles and/or machinery which are accepted at the facility.

### **2.1 Identification of Unacceptable Liquids**

The site operators will identify unacceptable liquids prior to the item being accepted at the facility. Upon identification, any scrap metal containing or likely to have come in contact with such prohibited wastes will be refused entry into the recycling yard.

## **2.2 On-Site Liquids Management**

Senior site personnel will determine an appropriate location for liquid draining activities and will ensure that appropriate liquid collection receptacles are present in these areas at all times. Unless liquids can be collected together for the purpose of off-site disposal on-site reuse, all liquids will be considered separate waste streams and will be collected and stored separately.

Clearly labeled liquid storage containers (either accumulation containers or storage containers) will be used solely for the material for which they have been labeled. Reuse of a container for another liquid will only be permitted after the container has been properly cleaned of residual liquids. Any byproducts generated during this processes would be disposed of in accordance with applicable regulations.

Areas where liquids will be collected on a regular basis ("accumulation areas") will have receptacles of sufficient size and characteristics to handle the specific waste collected. To the extent possible, accumulation areas will be located on impervious surfaces. These "accumulation containers" are likely to range in size from five-(5) to fifty-five (55) gallons in capacity and will be clearly labeled. Proper personal protective equipment (PPE) will be employed during collection/handling processes.

The accumulation containers will be stored in a manner which permits the inspection of the entire container on a periodic basis (see Section 2.4 below). Any drums to be employed in the accumulation process will be clearly labeled for the particular liquid for which they will be used and will be stored on a raised platform with secondary containment. All accumulation containers will be covered so that rainwater cannot readily enter the container and will be placed in a location where the likelihood of being damaged during work procedures is minimized.

In no instance will accumulation containers be filled to more than ninety percent of the containers capacity. Accumulation containers will be emptied into stationary bulk storage containers on a regular basis, in accordance with good management practices. Transfer of liquids from accumulation containers to "storage containers" will be conducted in a manner which minimizes the likelihood of release during transfer and will be performed within a secondary containment area. Storage containers will be sized to maximize efficiencies in the collection of on-site liquids from accumulation containers.

Bulk storage containers will be stored in a manner which permits the inspection of the entire container on a periodic basis (see Section 2.4 below). All bulk storage containers utilized on-site have been installed so that rainwater cannot readily enter the container and has been located in an area which minimizes the

likelihood of damage by heavy equipment. Bulk storage containers will be properly vented to prevent unsafe storage of liquids. Storage tanks used for petroleum bulk storage will be installed and maintained in accordance with the requirements set forth in applicable New York State Department of Environmental Conservation (NYSDEC) regulations (i.e., 6 NYCRR Parts 612-614).

All aboveground storage tanks will undergo (at minimum) monthly inspections (see Section 2.4 below) and inspection documents will be maintained by site personnel for three years. In no instance will storage containers be filled to more than ninety-five percent of the containers storage capacity.

### **2.3 Removal of Liquids for the Site**

Liquids will be removed from the site in accordance with applicable NYSDEC regulations. Only vehicles licensed to transport the particular liquid waste being removed for the site will be permitted to haul wastes from this site. Prior to the liquid waste being transferred into the transporter's vehicle, on-site personnel will review the hauler's license and ensure that proper manifests are prepared.

Every effort will be made by the hauler to minimize the likelihood of a release during the transfer of a liquid from the on-site storage tank to the transporter's vehicle. The release of liquid during transfer may be considered a release as defined by applicable NYSDEC regulations and should be handled consistent with the guidelines outlined below (see Section 3).

On-site personnel will maintain records of all liquid waste removed from the site by outside contractors. Records will be maintained in a readily accessible area for a minimum of three years.

### **2.4 Inspections and Record Keeping**

All accumulation and storage containers will be inspected on a periodic basis to document the integrity of these storage containers and to identify any indications of possible leakage or liquid handling mismanagement. Unless otherwise determined by site personnel, the inspection of all containers will occur on a monthly basis. These inspection records will be maintained by site personnel for a period of not less than three years.

### 3.0 SPILL IDENTIFICATION AND NOTIFICATION PROCEDURES

The notification procedures described below and provided in the Spill Response Procedure included in Attachment A become effective immediately upon observation of a spill or discharge of any kind which could possibly impact human health or the environment. The Spill Response Procedure outlines the actions to be taken in the event of a spill and should be posted near telephones in all areas where petroleum products or hazardous materials are stored, utilized or generated.

#### 3.1 Internal Notification Procedures

When a petroleum product or hazardous material incident has occurred or an imminent threat exists, the facility's On-Site Manager (OSM) will be contacted immediately by the employee who first discovers the spill. For the purposes of spill response, arrangements will be made with a state-accredited spill response contractor. If necessary (see Section 4.1 below), this spill response contractor will be immediately contacted by the OSM to contain the spill and provide cleanup operations.

Once the spill response contractor has been contacted by the OSM, the Pollution Incident Report provided in Attachment B will be used by the OSM and spill response contractor to record the progression of the spill discovery and cleanup.

#### 3.1 External Notification Procedures

Subsequent to notification of the spill response contractor, the OSM (or spill contractor, if authorized) will report the spill event as soon as possible to the following agencies:

- The NYSDEC at 1-800-457-7362. The DEC **MUST** be notified within TWO (2) HOURS of discovery of a spill. They will issue a spill number which will be included on line 17 of the Pollution Incident Report provided in Attachment A.
- Local fire department as necessary. The local fire department should be contacted by the OSM to ensure that the location of the facility is known and that expeditious fire control assistance can be obtained.
- Hospital and/or ambulance service as necessary. The local ambulance company should be contacted to ensure that the location of the facility is known and that expeditious assistance in medical aid can be obtained.



#### **4.0 PROCEDURES FOR SPILL CONTROL, CONTAINMENT & CLEANUP**

In the event of a petroleum product or hazardous material spill, immediate action should be taken to stop and/or contain the flow to prevent further pollution. This will be performed by the person discovering the spill, if possible. Personal safety is the governing factor in determining the extent of the action that can be performed. If the material is readily identifiable and not hazardous then immediate action can be taken to stop and contain the spill.

The person discovering the spill must immediately notify the OSM who will determine the need for the spill response contractor. Should the severity of the spill necessitate assistance, the OSM will then contact the spill response contractor. In the event that management of the spill is deemed by the OSM to be within the capabilities of the facility's personnel, these personnel will contain the spill and begin the clean-up if possible.

##### **4.1 Spill Severity and Level of Response**

In the event of a spill of any size, the Spill Response Procedure shall be implemented to an extent which enables complete corrective action and full cleanup of the incident. The OSM (with the assistance of the spill response contractor, if necessary) shall make the initial decision on the level of response to include the notification of state or federal agencies, and the committal of funds, equipment and manpower in response to the incident.

The severity of a spill shall be determined by the OSM (with the assistance of a qualified spill response contractor, if necessary) who shall determine the reportable quantity of the material spilled and notify the state and federal authorities, if necessary. In any case, a spill of any size on a waterway or wetland would be considered a major spill.

The OSM must determine if the facility personnel's level of training, equipment on hand, and personal protective equipment (PPE) is adequate for the material or substance which has been spilled. The Material Safety Data Sheet (MSDS) for the substance will be consulted to assist in determining the safety factors, health risk, PPE, etc. If the spill material cannot be identified, then the maximum level of PPE will be used.

In the event the spill cannot be controlled and adequately remediated by the OSM and assisting on-site personnel, a qualified spill response contractor will be retained. Contracts for spill cleanup services, supplies, disposal services and transportation shall provide for two hour response by the contractor following notification by authorized B. Millens Sons, Inc. personnel. The NYSDEC may also be asked to dispatch a representative if the situation dictates action.

## **4.2 Spills Into Water**

Provided below is a description of some of the methods and materials which can be used by the OSM and assisting on-site personnel to control, contain and cleanup petroleum product and hazardous material spills on water. Attachment C includes a list of the required materials which can be used to control petroleum product and hazardous materials. Attachment D contains a summary table of the techniques and materials which can be used specifically in the event that a petroleum product or hazardous material is discharged into a water body.

In the event that a spill occurs in a location in which more than one water use area is present, the surface waters shall first be protected, followed by groundwater (i.e. drinking water supply wells).

### **Containment Measures**

1. Containment will be accomplished by use of a floating boom (straw or commercial type).
2. Small streams may be dammed using absorbent boom to contain the spill.
3. Skimmers will be used to collect the heavy surface spill.
4. Oil and water will be transferred to tanks or drums for separation.
5. Final clean up will be accomplished by use of absorbents.
6. Absorbents will be disposed of at an approved an authorized landfill which meets environmental requirements.

## **4.3 Spills Onto Terrain**

Provided below is a description of some of the methods and materials which can be used by the OSM and assisting on-site personnel to control, contain and cleanup petroleum product and hazardous material spills on terrain. Attachment C includes a list of the required materials which can be used to control petroleum product and hazardous materials.

### **Containment Measures**

1. Contain the spill in the smallest area possible.
2. Remove all substance in liquid form using pumps, absorbents, etc.

3. Oil absorbent will be broadcast in the spill area and will be worked into the soil. Absorbent will be removed after it has absorbed the pollutant.
4. Remove pollutant soaked soil using front end loader, backhoes, pioneer tools, etc., as appropriate.
5. New soil will be used to replace the spill contaminated soil.
6. All contaminated soil and absorbent will be stored in closed 55-gallon drums or between polyethylene sheeting until such time as it can be appropriately transported off-site by a licensed transporter for disposal at a permitted facility.

**4.4 Decontamination and Recovery Standards and Enforcement Measures**

All materials that can be recovered for reuse shall be recovered. All other spill debris shall be removed from the site and disposed of in an environmentally safe manner in accordance with state and federal regulations. If the spill incident occurs on soil or vegetation, then soil samples shall be collected and tested to determine the effectiveness of the decontamination method and whether or not further decontamination is necessary. No spill incident site shall be considered clean until the state or federal agency determines it to be and documents it in writing.

**ATTACHMENT A – SPILL RESPONSE PROCEDURE**

This procedure will be effective immediately upon the observance of a spill of any kind which could be harmful to human health or the environment.

**1. CONTAIN THE SPILL**

Cover all of the drains within the path of the spilled liquid. Use sorbent pads, sorbent material or containment booms to divert the liquid away from drains, culverts or drainage ditches, and to stop the spill from spreading.

**2. FOLLOW THE ALERT NOTIFICATION PROCEDURE**

- a. Any person observing a spill of regulated substances of any quantity must notify the On-Site Manager immediately.

Be prepared to give the following information:

1. The amount and type of material spilled.
  2. Where the material was spilled.
  3. Date and time of the spill.
  4. Whether or not the spill is contained.
  5. Who you are – name and title.
  6. Your phone number.
- b. The facility's OSM will make a preliminary determination of the seriousness of the spill and at the minimum notify the following as required (this information will be posted near the telephone for emergency purposes):

<i>Title</i>	<i>Duty Hours</i>	<i>Non-Duty Hours</i>
<i>NYS Department of Environmental Conservation*</i>	1-800-457-7362	<del>1-800-457-7362</del>
<i>National Response Center/US Coast Guard Duty Office</i>	1-800-424-8802	<del>1-800-424-8802</del>
<i>Spill Response Contractor</i>		
<i>Medical Facility</i>		
<i>Local Fire Department</i>		

\*The NYS Department of Environmental Conservation must be notified within 2 hours of discovery of the spill as per state regulations (6 NYCRR Part 613.8).

**3. PUBLIC NOTIFICATION/INFORMATION RELEASE:**

- a. All Public notification and releases of information will be done by or through the property owner. The only exception is in the event that a spill of a hazardous waste or substance poses an imminent threat to the public health or the environment. The OSM has the authority to approve the release of information.
- b. The state and federal regulatory agencies are entitled to all relevant information concerning a spill of a hazardous substance. Furnishing such information in a timely and positive manner that assures accuracy and effects consideration of the public welfare is in the best interest of the East Strand Facility.
- c. For spills that are contained within the facility's boundaries and pose no threat to human health or the environment, release of information to the public will be made at the discretion of the OSM. Even if no information is formally disseminated to the public, any unclassified information that may be obtained under the Freedom of Information Law (FOIL) should be made available to persons whom request it.
- d. Releases of information will be prepared to:
  - Ensure public safety.
  - Prevent or reduce widespread alarm.
  - Ensure public understanding of the extent and nature of the public hazard resulting from a spill.

**4. SPILL CLEANUP:**

Using proper protective equipment for the specific spill material, clean the affected area with sorbent pads and material. For contaminated soil, shovel all impacted materials into 17H DOT approved open top 55-gallon drums and cover. If the amount is too great for drumming, shovel all contaminated material on a plastic tarp and cover to prevent leaching and evaporation. Label all containers and piles with the date of the spill, the substance spilled, and the hazard associated with the material spilled.

**ATTACHMENT B – POLLUTION INCIDENT REPORT**

The following written report will be provided by OSM or his/her representatives to the State Environmental Officer, within 24 hours following the discovery and initial telephonic reporting of the spill.

**Spill or Hazardous Substance Release Report Format**

**State Reporting:**                                 **Date:**   **Time:**  
**Person Reporting:**                            **Phone No.:**  
**Office:**  
**Person Reported to at NYSDEC:**  
**Date:**

**SUMMARY:**

1. Facility Name:
2. Facility Owner:
3. Date of Incident:
4. Location, Specific Areas Affected:
5. Cause, Source of Incident:
6. Material Type and Amount
7. Surface Resource(s) Affected (i.e. soil, surface water, groundwater, etc.)
8. Assistance Required:
9. Containment Procedures:
10. Corrective Actions – Elimination of Sources:
11. Estimated Quantity and Type of Waste Generated:
12. Samples Taken:
13. Estimated Completion Dates:
14. Any News or Public Reactions:
15. Names, Dates of Initial Notification and Agencies Notified:
16. General Discussion:

**ATTACHMENT C – REQUIRED MATERIALS FOR SPILL RESPONSE**

A spill response kit containing the following materials shall be maintained and ready to control petroleum product or hazardous material spills. A spill response kit consisting of at least the following will be located near each building or area storing regulated materials and/or wastes:

1. (1) 55 gallon open top DOT 17H steel drum.
2. (2) Square point d-Handled Shovels.
3. (2) Round point d-Handled Shovels.
4. (4) bags of sorbent material (speedi-dri or equivalent)
5. (30) Sorbent Pads
6. (1) 24"x24" Drain Cover
7. (4) Sample Jars
8. (8) Blank Labels for Sample Jars
9. (4) Hazardous & Nonhazardous Waste Labels
10. (1) Roll of duct tape
11. (10) Sand Bags
12. (2) Street Brooms
13. (2) 16'x50' 8mil Polyethylene Sheeting
14. (2) Pair Protective Rubber Gloves
15. (2) Pair Protective Disposable Coveralls
16. (1) Plug and Dike Patching Compound
17. (1) Selection of wood plugs – 2-6" diameters

In addition to the Response Kit, a First Aid Kit containing at least the following shall be maintained:

1. (50) Band aids, 3/4"
2. (10) Sterile pads, small
3. (2) Sterile pads, medium
4. (2) Red Cross bandages 1"x126"
5. (2) Red Cross bandages 2"x126"
6. (1) Roll of first aid tape, 1/2"x180"
7. (8) Cleansing Wipes
8. (1) Triangular Bandage
9. (1) Pair scissors
10. (1) First aid guide book.

The facility's evacuation rote diagram, shoeing fire extinguisher locations, shall be attached at the end of this document and be posed in conspicuous places throughout the facility.

**ATTACHMENT D**

**Control Procedures and Techniques Guide to Cleanup Operations  
On Water Courses**

<b>Water Course</b>	<b>Large Quantities of Oil &amp; First Stage Operations</b>	<b>Small Quantities of oil and Second Stage Operations</b>
<b>Ditches</b>	<b>Improvised dam</b>	<b>Straw or equivalent bale dam</b>
<b>Shallow, small flow stream</b>	<b>Underflow dam</b>	<b>Straw bale or equivalent dam and absorbents</b>
<b>Shallow, large flow stream</b>	<b>Overflow dam &amp; Fixed dam</b>	<b>Overflow dam, fixed boom &amp; absorbent or straw bale dam &amp; absorbent</b>
<b>Pond</b>	<b>Boom &amp; Sweep boom</b>	<b>Boom and absorbent</b>
<b>Roundout Creek</b>		