

**POST-REMEDIATION ENGINEERING  
REPORT**

**Lyndonville West Avenue Site  
Lyndonville, New York**

**October 2005    Project No. 507619  
18984401**

*Prepared by*



**CORPORATE REMEDIATION GROUP**  
*An Alliance between  
DuPont and URS Diamond*

**Barley Mill Plaza, Building 19  
Wilmington, Delaware 19805**



October 14, 2005

DuPont Engineering  
Barley Mill Plaza - Bldg. 19  
4417 Lancaster Pike  
Wilmington, DE 19805

Mr. David Pratt  
Environmental Engineer  
NYSDEC  
6274 East Avon-Lima Road  
Avon, NY 14414

Dear Mr. Pratt:

Please find enclosed five copies of the Post-Remediation Engineering Report (PRER) for the Lyndonville West Avenue Site (Site Code # 8-37-002) Lyndonville, Orleans County, New York. As noted in the PRER, remedial activities were conducted in accordance with the plans and technical specifications as presented in the NYSDEC-approved Cap Design, Lyndonville West Avenue Site, Lyndonville, New York, prepared in September 2004 by the DuPont Corporate Remediation Group.

If you have any questions regarding this submittal, please do not hesitate to contact me at (302) 992-6771 or Mr. Russell Killebrew at (678) 808-8941.

Sincerely,

Robert B. Genau  
Sr. Project Leader  
DuPont Corporate Remediation Group

Enclosure: Lyndonville Site Management Plan

CC: DuPont/Mike Lukas (ltr only)  
URS/Jim Whitty (ltr only)  
URS/Gary Britt (working hard copy and ltr)  
URS/Russ Killebrew (hard copy and ltr)  
URS/Dan Sheldon (ltr only)  
DuPont Barley Mill Central File (hard copy and ltr)

# POST-REMEDIATION ENGINEERING REPORT LYNDONVILLE WEST AVENUE SITE LYNDONVILLE, NEW YORK

Date: October 2005

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A handwritten signature in blue ink, appearing to read "James Edward Whitty".

James Edward Whitty, P.E.  
Principal Engineer  
NY State Registered Professional  
Engineer No. 070252

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## 1.0 INTRODUCTION

This Post-Remediation Engineering Report (PRER) for the Lyndonville West Avenue Site (Site Code # 8-37-002) has been prepared in accordance with Administrative Order on Consent (AOC) Index # B8-0474-99-02, between E. I. du Pont de Nemours and Company (DuPont) and the New York State Department of Environmental Conservation (NYSDEC). The PRER presents a summary of remedial activities completed at the Lyndonville West Avenue Site (site) between May 16, 2005 and August 30, 2005. Remedial activities for landfill closure were performed in accordance with the Cap Design Report (CRG, 2004), which was approved by NYSDEC and the New York State Department of Health (NYSDOH) in a letter dated November 12, 2004. The cap was designed in accordance with NYSDEC guidance, the Record of Decision (ROD) (NYSDEC, 2004) and the Revised Focused Feasibility Study (FFS) (CRG, 2003). The selected remedy, RAA3 as described in the FFS, consisted of the following elements:

- ❑ An asphalt cap with a geomembrane barrier layer for the landfill, and soil cap for the minor north slope portion
- ❑ Soil removal in the drainage swale
- ❑ Continued operation of the leachate collection and disposal system
- ❑ Site fencing along the north slope of the landfill
- ❑ Site access and deed restrictions

### 1.1 Report Objectives

The selected remedial action was intended to satisfy the following objectives:

- ❑ Eliminate or minimize the infiltration of precipitation and surface water run-off into the landfill.
- ❑ Enable the landfill to function as designed with a minimum amount of required maintenance.
- ❑ Promote efficient drainage while minimizing erosion/degradation of the asphalt cap/soil cap system.
- ❑ Accommodate settling and subsidence while maintaining the integrity of the cover system.
- ❑ Reduce or eliminate leachate generation while managing residual leachate.

### 1.2 Post-Remediation Engineering Report Supporting Information

The following support materials for this PRER are included in this report:

- ❑ *Certification of Completion*  
The certification, by a professional engineer in the State of New York, that the remedial design was constructed and all construction activities were completed in

accordance with the NYSDEC-approved Cap Design Report (CRG, 2004) is provided in Appendix A.

- ❑ *Correspondence and Approval Letters*  
Regulatory agency approval letters for submittals and applicable permits are presented in Appendix B.
- ❑ *Summary of Major Field Activities and URSD Daily Reports*  
A summary sheet of major field activities, including start and completion dates, is provided in Appendix C along with daily reports prepared by URS Diamond (URSD) staff providing field oversight.
- ❑ *Excavation Confirmation Survey Results and Final Survey Quantity Results*  
This appendix contains drawings showing initial, intermediate, and final site conditions along with ditch survey data. A final quantity report is also included in Appendix D, which includes volume of excavated materials for the ditch and cap areas, landfill regrading, asphalt placement, cap areas, erosion control blanket areas, hydroseeded areas, and fencing installed.
- ❑ *Quality Assurance Inspection and Testing of Geosynthetic Cap Components*  
Appendix E contains the inspection and testing results for the geosynthetics used for cap construction.
- ❑ *Waste Disposal Logs*  
Appendix F contains disposal logs for wastes generated during the construction activities.



## 2.0 BACKGROUND INFORMATION

This section presents a general description of the landfill and specific background information including a site description and description of site topography.

### 2.1 Site Description/Remedial Background

The site consists of several properties in the northwestern portion of the Village of Lyndonville, New York (CRG, 2003). Site activities date back to the early 1900s with the development of fruit storage and processing facilities and construction of the Rome, Watertown, and Ogdensburg (RW&O) railroad. Industrial activities on the properties date back prior to the mid-1920s (Bel Adhesive Inc. and the Housel Packing Company). Barry Lime and Sulphur Company, Inc. began operations at the property in the early 1920s with the production of lime and sulfur solutions and dust mixtures. DuPont purchased Barry Lime and Sulphur in 1943 and continued with the formulation of agricultural sprays and dusts until approximately 1954.

Waste lime and sulfur sludge from Barry Lime and Sulphur Company and DuPont were disposed of in a landfill, which is now part of the property currently owned by H.H. Dobbins, Inc. (Dobbins). At the time the landfill was created, the property was owned by Lyndonville Ice and Cold Storage. It has also been alleged that the landfill was used by other local facilities for the disposal of rotting fruit and by-products of fruit processing operations.

Numerous investigations were conducted by various regulatory agencies between 1978 and 1993. For the most part, these investigations focused on collecting soil, surface-water, and stormwater samples within the stormwater drainage system for the greater West Avenue area. The site was reclassified from a class "2A" to a class "2" site on the New York State (NYS) Registry in March 1994. Notifications requesting site investigation were distributed in 1995 to Primary Responsible Parties (PRPs) including Monroe Electronics, Dobbins Ramage, Bowman Apple Products Company, and DuPont. DuPont was the only PRP to respond to the notifications.

Scopes of work for both a Supplemental Environmental Assessment (SEA) and Supplemental Remedial Investigation (SRI) were negotiated and implemented by DuPont. DuPont conducted the SEA in 1997 to identify the source of the odors and characterize the site. Findings of the SEA revealed that the largest contributor to nuisance sulfur odors along West Avenue was leachate generated from the landfill, which discharged to the West Avenue storm sewer.

In response to the nuisance sulfide odors emanating from storm sewer grates along West Avenue, DuPont constructed a leachate collection system in 2001. This system was designed to collect and store the landfill leachate pending transport to an off-site treatment and disposal facility. The system became operational in January 2001. Since implementation of the leachate collection system, sulfide odor complaints from residents have ceased.

In 2001, a SRI was implemented and completed by DuPont. The SRI focused on the collection of data to evaluate remedial alternatives for the site and to address areas not characterized during previous investigations (CRG, 2001). The SRI report was approved by NYSDEC in November 2001.

In September 2003, a Revised FFS was completed by DuPont. The purpose of the FFS was to evaluate and recommend selected remedial action alternatives for the Lyndonville West Avenue site. The FFS was approved by the NYSDEC in the 2004 ROD.

## 2.2 Landfill Topography

The landfill is very flat and generally slopes to the northeast from the “Juice Building” (generally less than 2 percent slope as shown in Figure 1). Grades become steeper within the landfill “north slope.”

## 2.3 Stormwater Hydrology

Surface runoff for a large area south of the former railroad line drains eastward to a topographic low point just south of the landfill. A storm sewer line was constructed through the landfill materials over the years to avoid drainage problems as landfilling activities continued (see Figure 2). The storm line was connected to the West Avenue industrial sewer in 1975. The West Avenue industrial sewer was constructed in the early 1920s specifically to handle relatively large industrial wastewater streams from West Avenue industrial facilities and general stormwater flow.

In 2000, the Town of Lyndonville (with funding by DuPont) installed a stormwater diversion system upgradient of the landfill. This system diverts stormwater upgradient of the landfill to the Main Street storm sewer via a 24-inch polyethylene culvert pipe (see Figure 3). This system eliminated the major source of stormwater from entering the landfill.

## 2.4 Soils and Geology

The site is located in the gently sloping plains of the Central Lowland Physiographic Province between the Lockport Escarpment and Lake Ontario. This province is characterized by low, relatively flat-lying topography resulting from preglacial erosion of bedrock and subsequent modification during glacial and interglacial periods. As such, the overburden deposits are dominantly glacial in origin, ranging from flat-lying fine-grained lacustrine clays to coarse-grained, localized, relict shoreline deposits.

Regionally, the Arkport very fine sandy loam, being derived from deltaic sandy deposits in former glacial lakes characterizes soils in the vicinity. Characteristics of this soil include slow runoff, slight to moderate potential for erosion, fine to very fine sand composition, and good drainage.

Natural overburden deposits beneath the study area were characterized from the advancement of soil borings and installation of monitoring wells during the SEA.



The following three major stratigraphic units were also identified during the SEA (CRG, 1998):

- ❑ Relatively uniform tan/brown to tan/red fine to medium sand (less than 1 to 13 feet in thickness)
- ❑ Mottled brown/tan/gray low permeability lacustrine clay (8 to 9 feet in thickness)
- ❑ A brown/red rock and sand glacial till (3 to 4 feet in thickness)

The uppermost fine-grained sand is characteristic of extensive deltaic sand plain deposits. Although the deltaic sand deposit varies in thickness across the study area, typical thickness of this sand deposit beneath the landfill is 1 to 2 feet.

A mottled brown/gray lacustrine clay was observed beneath the deltaic sand throughout the entire study area. Elevation data revealed that the top of the clay unit mimics the generally eastward slope of ground surface toward Johnson Creek with a relatively uniform thickness of 8 to 9 feet. A transitional contact between the deltaic sand and the lacustrine clay, marked by an interbedded sand and varied clay zone, was observed at several locations. The clay unit is physically consistent with very low permeability (less than  $1 \times 10^{-7}$  centimeters/second) lacustrine clays in the western New York area. A perched water zone was identified within the deltaic sand unit above the lacustrine clay.

A sharp contact was observed at several locations between the lacustrine clay and underlying glacial till. The glacial till consisted of a poorly sorted gravel and sand unit deposited in front of the retreating ice margin at the end of the Wisconsin glacial age. As observed at MW-2, the only borehole advanced to bedrock; the till was approximately 3 to 4 feet in thickness.

Weathered red shales of the Upper Ordovician age Queenston Formation were encountered at approximately 26.8 feet below ground surface at MW-2.

## 2.5 Hydrogeology

Regional groundwater flow is presumably north toward Lake Ontario. The water bearing nature of the Queenston Shale was not evaluated because of the presence of a widespread clay aquitard, which prevents downward flow to deeper aquifers. Locally, shallow groundwater flow is toward the east and appears to mimic surface topography.

With the exception of MW-4, a perched water-bearing zone was observed above the glaciolacustrine clay unit at all locations. The lacustrine clay unit was encountered within inches of ground surface at the MW-4 location. Hydraulic head measurements were collected on August 4, 1997. A piezometric surface contour map was produced from the water levels and determined that shallow groundwater flow is toward the east.

## 3.0 REMEDIAL ACTIVITIES

This section discusses the field work prerequisites and construction activities performed to install the cap system over the landfill, excavate the drainage swale soils, and restore the site, including the drainage swale.

### 3.1 Field Work Prerequisites

Upon NYSDEC and NYSDOH approval of the September 2004 Cap Design Report (CRG, 2004), the following activities were completed either prior to, or shortly after, mobilization to the site:

- Mark Cerrone Inc. of Niagara Falls, New York, was selected as the remedial contractor to perform the cap construction and drainage swale excavation activities.
- Waste profiles were established for acceptance of: excavated materials from the drainage swale and landfill at the DuPont Necco Park Landfill in Niagara Falls, New York for use as alternate grading material (AGM); tree stumps and other debris for disposal at Waste Management Inc. High Acres Subtitle D Landfill in Fairport, New York; and logs and brush to Terry Tree Service, LLC in Niagara Falls, New York for processing and sale as mulch. Further information regarding waste transportation and disposal is provided in Section 4.0 of this report.
- Approval was obtained from the Department of the Army, Buffalo District, Corps of Engineers and NYSDEC to remediate soil in the site drainage swale under Nationwide Permit 38 for wetlands. A copy of the permit approval letter is provided in Appendix B. Because NYSDEC and NYSDOH approved the Cap Design Report, which contained the site-specific erosion and sediment control plan, a separate permit was not required for erosion and sediment control.

### 3.2 Construction Activities

On May 16, 2005, the remedial contractor mobilized to the site and began preparations for remediation activities. URSD performed field oversight on behalf of DuPont during all field activities, which were completed on August 30, 2005. Activities were documented in daily reports. A summary of the sequence of events and copies of the URSD daily reports are provided in Appendix C.

#### 3.2.1 Site Preparation and Excavations

Prior to cap construction, site preparation, including clearing and grubbing, was conducted at the site. Materials were also excavated from the drainage swale and the landfill area in preparation of cap construction activities. Overall, these activities were performed in accordance with the approved Technical Specifications provided in the Cap Design Report (CRG, 2004).



However, unanticipated site conditions warranted the following modifications to the approved Technical Specifications:

- ❑ Asbestos-containing pipe was discovered in the ditch excavation area near the concrete tank supports. Laboratory analysis of the pipe confirmed that it contained asbestos. A waste profile was submitted to Waste Management, Inc. for approval to dispose of 0.11 tons of pipe at the High Acres Landfill in Fairport, New York. Approval was received, and the pipe was transported to the landfill for disposal. Section 4.0 of this report further discusses waste transportation and disposal.
- ❑ A water line was ruptured while staging pieces of cleared concrete saddles in the area of the drainage swale. Because the water line was only 12 to 16 inches below grade, concerns were raised that the line would rupture while backfilling and compacting soil in this area. After discussions with the Town of Lyndonville, it was decided that DuPont would reimburse the town for the effort to disconnect this water line and reconnect the impacted business (Monroe Electronics) and resident (adjacent to Monroe Electronics) to an existing water line from the street to the south.
- ❑ During excavation on the south side of the Juice Building, additional railroad cross ties were encountered above the intermediate grades. Waste profiles were submitted to Waste Management, Inc. for disposal approval. Following approval, a total of 52.52 tons of cross ties were transported to the landfill for disposal. Section 4.0 of this report further discusses waste transportation and disposal.
- ❑ To meet final grades, a manhole in the Type 3 Gravel Cap area had to be raised (The three types of caps installed are discussed below in Section 3.2.2).
- ❑ Minor modifications were made to the tie-in from the 10-inch diameter industrial storm sewer line to the junction box (see Figure 3). Once excavated, it was evident that the piping configuration was different than anticipated. However, the modifications did not alter water flow directions.
- ❑ Because of grade constraints as a result of the cross ties encountered (discussed above), final grades for the Type 1 Asphalt Cap resulted in the potential for stormwater drainage towards the western side of the Juice Building. Therefore, a grate and collection system was installed in front of the doors to the building to prevent rainwater runoff from entering the building.

Surveyed subgrade preparation and excavation quantities are listed below for the drainage swale and Juice Building.

- ❑ Drainage swale area: volume of materials excavated to bottom of cut/subgrade was 1,792 cubic yards.
- ❑ Juice Building area: subgrade preparation volume was 1,322 cubic yards of cut and 339 cubic yards of fill.

Based on survey data, the excavations for both the drainage swale and Juice Building met the approved plans. Excavation confirmation survey results are provided in Appendix D.

- ❑ **Geomembrane** – A 60-mil double-sided textured HDPE geomembrane was installed for the soil cap to provide improved interface friction between adjacent cap system components required to meet the factor of safety against failure on steeper slope.
- ❑ **Geocomposite Drainage Layer** – In accordance with Section 02276 of the Technical Specifications, geocomposite was installed above the geomembrane as a drainage layer for stormwater infiltration through the cover soils. The geocomposite drainage layer was composed of a geotextile-geonet-geotextile composite sandwich. Individual components were heat bonded together and provided, as a composite, interface shear friction characteristics required to meet the factor of safety against failure for the steeper slopes.
- ❑ **Cover Soil** – In accordance with Section 02200 of the Technical Specifications, cover soil was placed in a 6-inch layer above the geocomposite to support the overlying vegetation layer while allowing percolation into the underlying drainage layer.
- ❑ **Amended Cover Soil Layer** – As discussed in Section 02200 of the Technical Specifications, amended cover soil was placed in a 6-inch-thick layer above the cover soil to sustain vegetative growth.
- ❑ **Erosion Control Blanket** – In accordance with Section 02270 of the Technical Specifications, an erosion control blanket was installed over the amended cover soil to minimize the potential of cover soil erosion until establishment of vegetation.

For the Type 3-Gravel Cap, system components installed included the following (constructed in order as listed):

- ❑ **Prepared Subgrade** – In accordance with Section 02200 of the Technical Specifications, prepared subgrade was compacted following intermediate grading activities.
- ❑ **Geotextile** – In accordance with Section 02274 of the Technical Specifications, geotextile was installed directly on the prepared subgrade to serve as a separation layer between the subgrade and gravel cover.
- ❑ **Gravel Cover** – In accordance with Section 02510 of the Technical Specifications, a 12-inch-thick layer of NYDOT subbase course aggregate Type 2 stone was placed above the geotextile.

Each of the three cap systems was installed in accordance with the Technical Specifications, with the exception of the Type 1-Asphalt Cap. For the Type 1-Asphalt Cap, plans were to batten the liner to the concrete foundation of the Juice Building. However, upon excavation, the Juice Building was found to be a “pole building” that had no concrete to batten against. As a result, the geomembrane was terminated against the building foundation without a batten strip.

The three cap areas are shown on Figure 4; Figure 5 specifically shows the placement and area of the Type 1-Asphalt Cap. Cross-sections of the three cap types are shown in Figure 6. Figure 7 shows final site conditions.



During excavation activities, air monitoring for dust was performed by Golder Associates of Niagara Falls, New York. Water trucks were used as needed such that soils remained moist, thus providing dust control. As a result, all monitoring results were below the site-specific Health and Safety Plan standard of 0.5 ug/M<sup>3</sup>. Appendix E contains air monitoring results.

Following excavation, the drainage swale was backfilled with clean fill and regraded according to the approved Design Drawings. Appendix D contains the survey data showing final conditions for the drainage swale. The drainage swale was amended and seeded as specified in the approved Technical Specifications.

### 3.2.2 Cap Construction

Three types of cap were constructed: Type 1-Asphalt Cap System, Type 2-Engineered Soil Cap System, and Type 3-Gravel Cap System.

For the Type 1-Asphalt Cap, system components installed included the following (constructed in order as listed):

- ❑ **Prepared Subgrade** – In accordance with Section 02200 of the Technical Specifications, prepared subgrade was compacted following intermediate grading activities to serve as a stable bearing layer for the overlying geomembrane. Coarse gravel (material larger than 1 inch in diameter) was not permitted in this layer to minimize potential puncture damage to the overlying geomembrane.
- ❑ **Geomembrane** – In accordance with Section 02278 of the Technical Specifications, a geomembrane was installed above the prepared subgrade to serve as a barrier layer. A 60-mil smooth high-density polyethylene (HDPE) geomembrane was utilized.
- ❑ **Cushion Geotextile** – In accordance with Section 02274 of the Technical Specifications, geotextile was installed above the geomembrane to serve as a cushion/protection layer for the geomembrane and to allow drainage of stormwater along with the overlying aggregate subbase.
- ❑ **Aggregate Subbase** – In accordance with Section 02510 of the Technical Specifications, 5 ½ inches of New York Department of Transportation (NYDOT) Type 2 subbase was installed above the geotextile to serve as a base for the Hot Mix Asphalt (HMA).
- ❑ **Hot Mix Asphalt** – In accordance with Section 02510 of the Technical Specifications, 5 inches of NYDOT Type 1 HMA base course and 1½ inches of NYDOT Type 7 HMA top course were installed as paving on top of the gravel base.

For the Type 2-Engineered Soil Cap, system components installed included the following (constructed in order as listed):

- ❑ **Prepared Subgrade** – The prepared subgrade was constructed as indicated above for the asphalt cap.



Cap system components were selected based on their suitability in achieving stability with the required factors of safety. Testing of the actual geosynthetic and natural materials was conducted prior to and during field installation of the cap system components, and documentation that the required quality assurance inspections and testing were completed in accordance with the Technical Specifications (see Appendix E).

For site access control, a gated 8-foot high chain-link fence was installed following cap system construction activities as required in the Revised FFS.

### **3.2.3 Gas Collection System**

Waste lime and sulfur sludge were disposed of in the landfill and gas management required consideration of these materials. Because of the age of the landfill (over 50 years), an active gas collection system was deemed unnecessary. However, a passive gas vent system was installed in accordance with the Technical Specifications. The system consists of two vents located in relative high points on the western boundary of the site, northwest of the Juice Building and adjacent to and east of the Dobbins Building. The purpose of the system is to facilitate the release of landfill gas, which may be generated during post-closure and allow the cap system to release gas and water vapor, which could be trapped under the geomembrane.

### **3.2.4 Erosion and Sediment Control**

Erosion and sediment control measures were installed and maintained throughout the project. Measures included the installation of erosion control blank and revegetation. Figure 8 shows areas where the erosion control blanket was installed. Figure 9 shows areas that were hydroseeded. The site was inspected one month following field activities by URSD staff. It was noted that grass was well established in the hydroseeded areas.

### **3.2.5 Leachate Control and Management**

As discussed in Section 2.1 of this report, DuPont and the Town of Lyndonville implemented remedial actions to eliminate migration of landfill leachate to the West Avenue storm sewer and Johnson Creek with the construction of a leachate collection system. Cap construction activities did not impact the system or its operation. Leachate generation is anticipated to decrease over time because of reduced infiltration resulting from impermeable cap construction and stormwater diversion.

## **3.3 Closure**

A Site Management Plan, which included the post-closure Operation, Monitoring, and Maintenance Work Plan, was submitted to NYSDEC on April 22, 2005. NYSDEC approved the Site Management Plan in a letter dated July 25, 2005 (see Appendix A). Post-closure activities will be performed in accordance with the approved Site Management Plan.

## 4.0 WASTE TRANSPORTATION AND DISPOSAL

Site remedial activities generated the following waste streams:

- ❑ Excavated materials from the drainage swale and landfill
- ❑ Tree logs/limbs and brush from site clearing and grubbing activities
- ❑ Tree stumps, railroad ties, and general waste

Excavated materials from the drainage swale and landfill were approved by NYSDEC for disposal at the DuPont Necco Park Landfill in Niagara Falls, New York. According to final survey, a total of 3,114 cubic yards of materials were transported by Brodie, Duran, and/or Walck Brothers Trucking Companies, through Mark Cerrone Inc., to Necco Park for use as Alternative Grading Material (AGM). A copy of the approval letter is provided in Appendix B, final survey quantity results are provided in Appendix D, and disposal logs are provided in Appendix F.

Tree logs/limbs and brush generated from site clearing and grubbing activities were transported by Brodie Trucking, through Mark Cerrone Inc., to Terry Tree Service, LLC in Niagara Falls, New York. A total of 75.34 tons of trees and brush were transported to Terry Tree Service, LLC for processing and sale as mulch. Disposal logs are provided in Appendix F.

Tree stumps, railroad cross ties, asbestos pipe, and general debris were transported by Brodie, Duran, and Walck Trucking Companies through Mark Cerrone Inc. for disposal at the Waste Management, Inc. High Acres Subtitle D Landfill in Fairport, New York. A total of 564.34 tons of site-generated debris were disposed of in the landfill. Of the 564.34 tons, 0.11 tons were asbestos pipe. Disposal logs are provided in Appendix F.

## 5.0 REFERENCES

DuPont Corporate Remediation Group (CRG). 2004. *Cap Design*, Lyndonville West Avenue Site, Lyndonville, New York.

\_\_\_\_\_. 2003. *Revised Focused Feasibility Study*, DuPont, Lyndonville West Avenue Site, Lyndonville, New York.

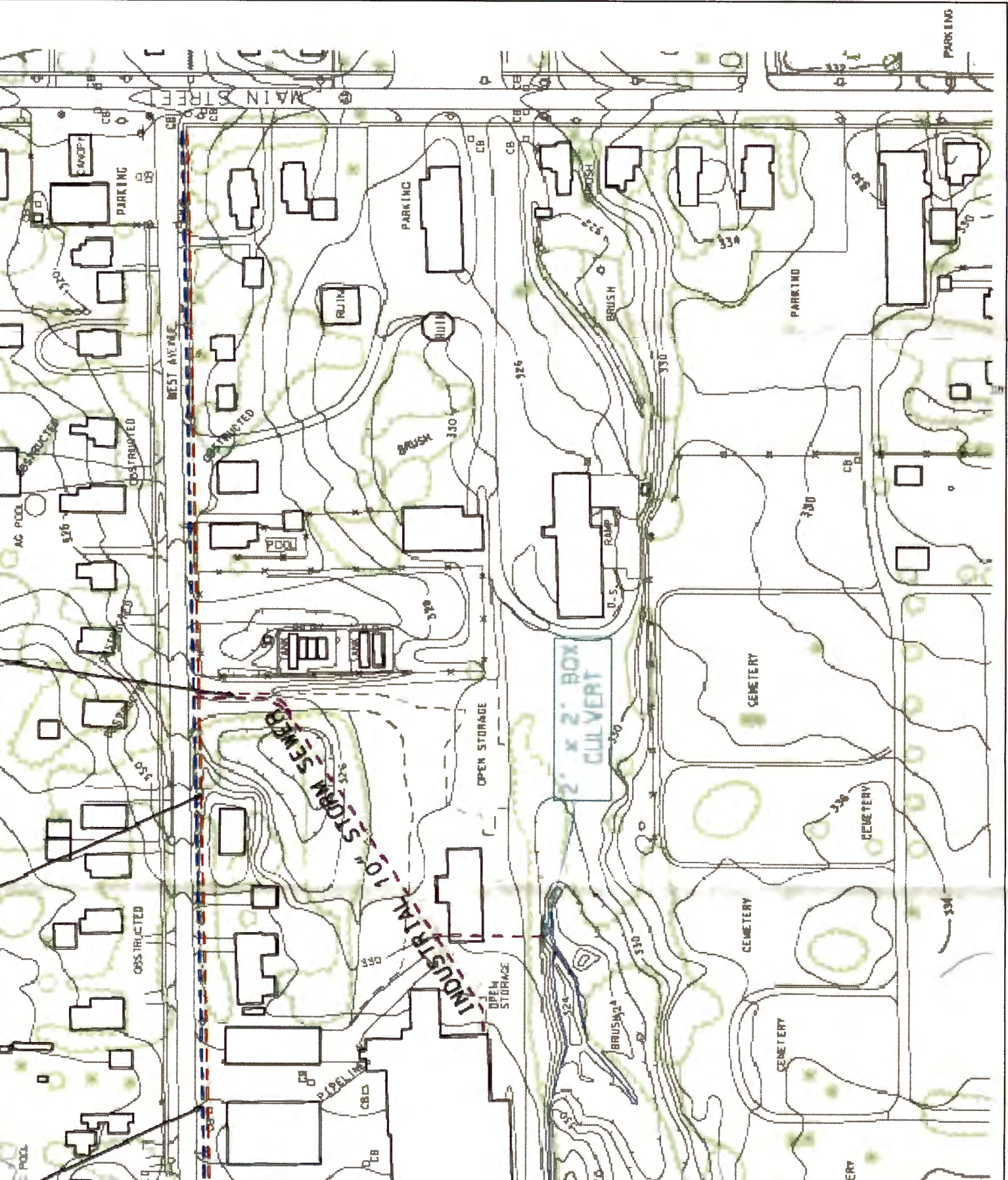
\_\_\_\_\_. 2001. *Supplemental Remedial Investigation Report*, Lyndonville – West Avenue Site, Lyndonville, New York.

\_\_\_\_\_. 1998. *Supplemental Environmental Assessment Report*, Lyndonville – West Avenue, Lyndonville, New York.

New York State Department of Environmental Conservation (NYSDEC). 2004. Record of Decision (ROD), Lyndonville West Avenue Site, Village of Lyndonville, Orleans County, New York, Site Number 8-37-002, March 2004.



**FIGURES**



STORM SEWER CONFIGURATION  
PRIOR TO 1975



DESIGNED  
W. Duchesneau  
DRAWN  
G. WAIN  
DEL.  
INTALS



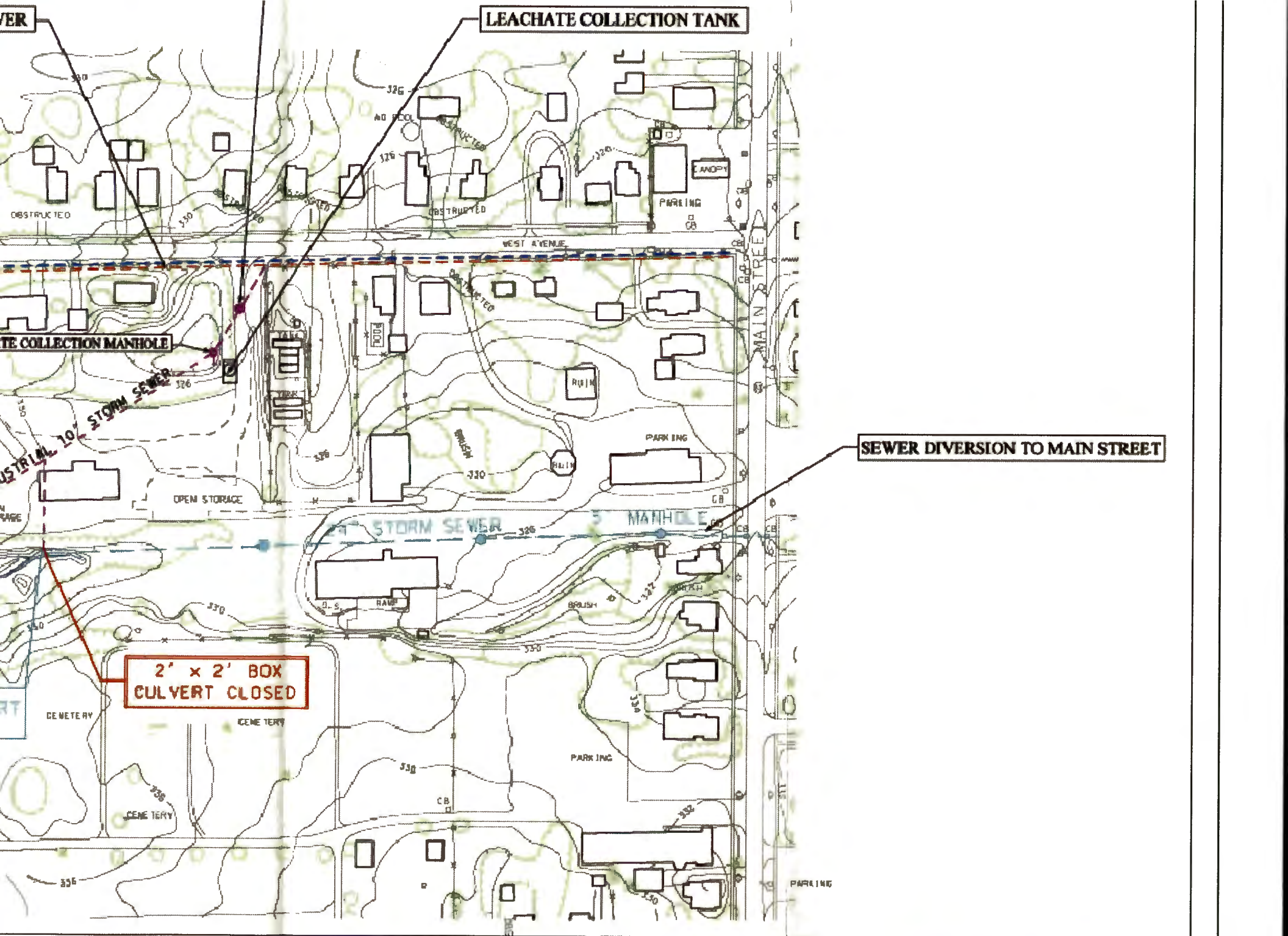
WER

LEACHATE COLLECTION TANK

TE COLLECTION MANHOLE

SEWER DIVERSION TO MAIN STREET

2' x 2' BOX  
CULVERT CLOSED



DESIGNED	INITIALS
W. Duchescher	
DRAWN	
CEL	



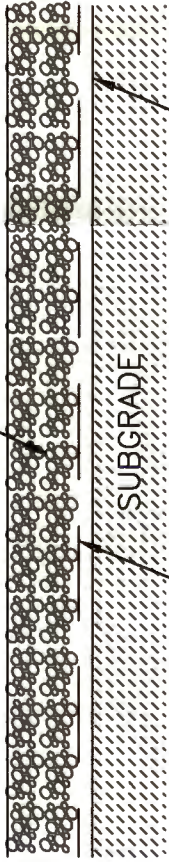
STORM SEWER CONFIGURATION AFTER  
LANDFILL LEACHATE REMEDIAL ACTIONS

TYPE 1 TOP  
(T)

SE, NYDOT  
DEPTH



NYDOT SUBBASE COURSE  
AGGREGATE TYPE 2



SUBGRADE

GEOTEXTILE

INTERMEDIATE GRADE

DETAIL 3

TYPE 3 GRAVEL CAP SYSTEM DETAIL (TYP.)

(N.T.S.)

FINISHED GRADE

EROSION CONTROL  
BLANKET



NYDOT AGGREGATE  
TYPE 4A

SUBGRADE

VARIABLES

DETAIL 2

TYPE 2 GRAVEL CAP SYSTEM DETAIL (TYP.)

(N.T.S.)

DESIGNED

W. Duchachner

DRAWN

DEL



CAP CROSS-SECTION  
DETAILS

**APPENDICES**

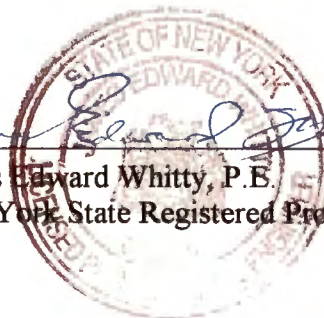

**APPENDIX A**  
**CERTIFICATION OF COMPLETION**



**CERTIFICATION OF COMPLETION**

In accordance with the provisions of the Development and Implementation of a Remediation Program for an Inactive Hazardous Waste Disposal Site under Article 27, Title 13, and Article 71, Title 27 of the Environmental Conservation Law of the State of New York and Administration Order of Consent (AOC) Index # B8-0474-99-02, for the E. I. duPont de Nemours and Company (DuPont) Lyndonville West Avenue Site (Site Code # 8-37-002) located in Lyndonville, Orleans County, New York, this constitutes certification that the Remedial Design was implemented and construction activities were completed in accordance with the specifications in the New York State Department of Environmental Conservation (NYSDEC) - approved Cap Design Report, prepared by the DuPont Corporate Remediation Group, dated September 2004. This document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons responsible for gathering the information, and my own observations on site, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Signed:



James Edward Whitty, P.E.  
New York State Registered Professional Engineer No. 070252



**APPENDIX B**  
**APPROVAL LETTERS**

**New York State Department of Environmental Conservation**

**Division of Environmental Remediation, Region 8**

6274 East Avon-Lima Road, Avon, New York 14414-9519

Phone: (585) 226-5355 • FAX: (585) 226-8696

Website: [www.dec.state.ny.us](http://www.dec.state.ny.us)



Erin M. Crotty  
Commissioner

*Rec'd  
11/18/2004*

November 12, 2004

Robert B. Genau  
Senior Project Leader  
DuPont  
Barley Mill Plaza, Building 27, Office 2274  
Routes 141 & 48  
Wilmington, DE 19805

Re: Lyndonville West Avenue, Site # 837002  
Lyndonville (V), Orleans (C)

Dear Mr. Genau:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the September 2004 Cap Design Report for the Lyndonville West Avenue site. The design is hereby approved and may proceed to bidding. However, the following comments will need to be addressed prior to final approval to proceed with construction:

1. The report itself must be stamped by a licensed professional engineer (the drawing were properly stamped). Please provide a stamped cover page for the September report.
2. A complete Health and Safety Plan will need to be submitted for NYSDEC and NYSDOH review. Adequate community air monitoring will be required.
3. A Site Management Plan (SMP) needs to be developed. This will need to include an Operation, Maintenance and Monitoring Plan that clearly spells out DuPont's and the landowner's responsibilities. An Environmental Easement will need to be filed for the affected properties. Language for this easement is currently being finalized by the NYSDEC.
4. The SMP will need to include provisions for dealing with sulfide odors from the proposed landfill vents if, in the future, this becomes an issue.

5. The SMP will need to include provisions for expanding the cap if any of the on-site buildings are removed in the future.

Please provide the requested items, as well as a proposed schedule for fieldwork, for our review and approval prior to the commencement of fieldwork. If you have any questions, please contact me.

Sincerely,



David G. Pratt, P.E.  
Environmental Engineer 2

cc: B. Putzig  
M. Forcucci  
G. Bailey  
W. Dickinson





DEPARTMENT OF THE ARMY  
BUFFALO DISTRICT, CORPS OF ENGINEERS  
1776 NIAGARA STREET  
BUFFALO, NEW YORK 14207-3199

REPLY TO  
ATTENTION OF:

March 10, 2005

**COPY**

Regulatory Branch

SUBJECT: Application No. 2005-00631(0), New York State Department of Environmental Conservation Administrative Order of Consent Index No. B8-0474-99-02, Nationwide Permit No. (38) as Published in the Federal Register, Volume 67, No. 10, on Tuesday January 15, 2002

Mr. Bob Genau  
DuPont  
Barley Mill Plaza  
Building 27, Room 2274  
Wilmington, Delaware 19805

Dear Mr. Genau:

This pertains to your application for a Department of the Army permit to remediate soil in a 1,060-foot and up to 25-foot wide drainage channel, adjacent to Johnson Creek, located at West Avenue, near the City of Lyndonville, Orleans County, New York.

I have evaluated the impacts associated with your proposal, and have concluded that they are authorized by the enclosed Nationwide Permit provided that the attached conditions are satisfied.

Verification of the applicability of this Nationwide Permit is valid for two years from the date of affirmation unless the Nationwide Permit is modified, suspended or revoked. This verification will remain valid for two years if during this two year period the Nationwide Permit is reissued without modification or your activity complies with any subsequent permit modification. Please note that if you commence or are under contract to commence this activity in reliance of your Permit prior to the date this Nationwide Permit is suspended or revoked, or is modified such that your activity no longer complies with the terms and conditions, you have twelve months from the date of permit modification, expiration, or revocation to complete the activity under the present terms and conditions of this Nationwide Permit, unless this Nationwide Permit has been subject to the provisions of discretionary authority.

Regulatory Branch

SUBJECT: Application No. 2005-00631(0), Nationwide Permit No. (38) as Published in the Federal Register, Volume 67, No. 10, on Tuesday January 15, 2002

It is your responsibility to remain informed of changes to the Nationwide Permit program. A public notice announcing any changes will be issued when they occur. Finally, note that if your activity is not undertaken within the defined period or the project specifications have changed, you must immediately notify this office to determine the need for further approval or reverification.

In addition to the general conditions attached to the Nationwide Permit, your attention is directed to the following Special Conditions which are also appended at the end of the Nationwide Permit General Conditions:

1. That you are responsible for ensuring that the contractor and/or workers executing the activity(s) authorized by this permit have knowledge of the terms and conditions of the authorization and that a copy of the permit document is at the project site throughout the period the work is underway.
2. That this permit does not authorize sidecasting or any other temporary or permanent disposal of dredged or fill material in this drainage channel, Johnson Creek, or any other water of the United States including freshwater wetlands.
3. That as soon as possible following construction all exposed banks and slopes shall be seeded and mulched to prevent erosion.

During our review we considered all applicable Federal requirements as well as state Water Quality Certification (WQC) conditions. We have made every effort to ensure that your project complies with these requirements. However, we have neither the resources nor the statutory authority to conclusively determine whether your project complies with ALL New York State Water Quality Certification conditions. Your initiation of work as authorized by the enclosed Nationwide Permit acknowledges your acceptance of the general and special conditions contained therein. Direct your WQC questions to:

Mr. David Pratt  
New York State Department of Environmental Conservation  
Region 8 - DEP  
6274 East Avon-Lima Road  
Avon, New York 14414-9519

Regulatory Branch

SUBJECT: Application No. 2005-00631(0), Nationwide Permit No. (38) as Published in the Federal Register, Volume 67, No. 10, on Tuesday January 15, 2002

Finally, this affirmation is limited to the attached Nationwide Permit and associated Water Quality Certification, and does not obviate the need to obtain any other project specific Federal, state, or local authorization. Specifically, you may need to obtain Article 15 (Protection of Water), Article 24 (Freshwater Wetland), and/or Article 34 (Coastal Erosion Management) authorization from the New York State Department of Environmental Conservation.

A copy of this letter has been forwarded to: Mr. David Pratt.

Questions pertaining to this matter should be directed to me at (716) 879-4309, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, or by e-mail at: michael.p.senus@usace.army.mil

Sincerely,



Mick Senus  
Hydrologist  
Project Manager

Enclosures





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

APR 5 2005

RECEIVED  
4/13

BY ELECTRONIC AND EXPRESS MAIL  
RETURN RECEIPT REQUESTED

Mr. Paul Mazierski, P.G.  
Principal Project Leader  
DuPont Corporate Remediation Group  
Buffalo Avenue and 26<sup>th</sup> Street  
Building 38, 2<sup>nd</sup> Floor  
Niagara Falls, New York 14302-0787

Re: Necco Park Superfund Site; Lyndonville Site and Dupont Niagara Plant Soil as AGM

Dear Mr. Mazierski:

The purpose of this letter is to inform you of EPA's and the NYSDEC's approval of your March 24, 2005, request to use approximately 2,050 cubic yards of soil from Dupont's Lyndonville West Avenue Site and 250 cubic yards from Dupont's Niagara Plant. This approval is based on the waste analysis data which was attached to your letter of March 24<sup>th</sup>, and assumes that the soil materials are acceptable for use as AGM.

Because Dupont will be conducting remedial work at the Lyndonville facility, soil from the facility should be handled and managed such that exposure to any contamination in the soil is prevented or minimized.

Please call me at (212) 637-4281 or e-mail me at [taccone.tom@epa.gov](mailto:taccone.tom@epa.gov) regarding any questions on this letter.

Sincerely yours,

Thomas Taccone  
Project Manager  
Western NY Remediation Section

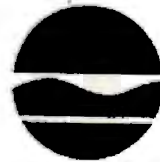
cc: M Hinton, NYSDEC  
J. Kaczor, TAMS Consultants  
K. Lynch, ERRD, NYRB  
G. Shanahan, ORC

**New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 8**

6274 East Avon-Lima Road, Avon, New York 14414-9519

Phone: (585) 226-5355 • FAX: (585) 226-8696

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Erin M. Crotty  
Commissioner

July 25, 2005

Robert B. Genau  
Senior Project Leader  
DuPont  
Barley Mill Plaza, Building 27, Office 2274  
Routes 141 & 48  
Wilmington, DE 19805

Re: Lyndonville West Avenue, Site # 837002  
Lyndonville (V), Orleans (C)

Dear Mr. Genau:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have received April 2005 Site Management Plan (SMP). The SMP is acceptable and should be incorporated into the institutional controls.

If you have any questions, please contact me.

Sincerely,

David G. Pratt, P.E.  
Environmental Engineer 2

cc: B. Putzig  
M. Forcucci  
G. Bailey

**APPENDIX C**

**SUMMARY OF MAJOR FIELD ACTIVITIES AND URSD DAILY  
REPORTS**



**SUMMARY OF MAJOR FIELD ACTIVITIES**  
**Lyndonville Cap Construction**  
**Lyndonville, New York**

**Subcontractors:**

Prime contractor – Mark Cerrone Inc.

Surveying – Wendel Duchscherer

Quality Control – Golder and Assoc.

Geosynthetics – Chenango Lining Systems

Paving – Anastassi Paving

Fencing – Fox Fencing

**Sequence of events:**

- Mobilization – 5/16/05.
- Clearing and grubbing – Begins 5/16/05 and completed on 6/24/05.
- Erosion control measures – Begin installation on 5/20/05 and continued until project completion on 7/29/05.
- Construction entrance – Installed 5/24/05.
- Cap system re-grade – Began on 5/26/05 and completed on 7/6/05.
- Ditch excavation – Begins 6/1/05 and completed on 6/30/05.
- Asbestos abatement – Performed on 6/8/05.
- Type 3-cap construction – Began 6/17/05 and completed on 7/22/05.
- Storm sewer manhole raised 6/22/05.
- Ditch cover soil – Began 6/22 and completed on 7/1/05.
- Type 1-cap construction – Began on 6/27/05 completed on 7/21/05. Survey pending.
- Type 2-cap construction – Began on 6/27/05 and completed on 7/22/05. Survey pending.
- Fence installation began on 7/5/05 and completed on 7/27/05.
- Culvert installation – Began 7/6/05 and completed on 7/7/05.
- Gas vent installation – Installed 7/5/05.
- Hydroseed all disturbed areas – Performed 7/13/05.
- Install erosion control blanket on all slopes of 3H:IV or greater – Began 07/14/05 and completed on 7/29/05.
- Site inspection by Certifying Engineer and generation of punch list – 08/3/05.
- Completion of punch list items by Mark Cerrone Inc., 08/30/05.

For details, refer to the attached daily reports.

## DAILY FIELD REPORT

**Project: Re-Grade & Cap Construction**  
**Project No.: 18984401.05002**  
**Owner: H.H. Dobbins / DuPont**  
**Project Manager: Russell Killebrew**

**DFR NO.:**  
**Date: 05/16/05**  
**Weather: P-Sunny, Cool**  
**Temperature: 35-55 F**

### VISITORS/CONTRACTORS

Name	Representing	Purpose
Survey Crew (2)	Wendel & Duchscherer	Site lay-out
Electrical Crew (2)	Gaines Electrical	Connect office trailer to power.
Phone Company (1)	Verizon	Connect phones in office trailer.
United Rentals	Delivery	Silt fence, Geotextile

### Contractors

Name	Number of Personnel	Purpose
J. Salvatore, B. Sippel	Cerrone (8)	Clear trees from south ditch.
M. Cerrone		Clean-up limbs along north side of site.
A. Dowe, C. Tindle		
P. Bitterman, P. Duncan		
R. Brennen		

### Health and Safety

Conduct HASP and PSA training. Inspect equipment.  
 Review paperwork and approve employees for non-intrusive site activities, tree clearing.

### Equipment

Hydraulic excavator 200 series  
 Tree chipping equipment and bucket truck  
 D6D Dozer - Not inspected

### Summary of Daily Activities

0700 Conduct HASP and PSA training. Complete required paperwork and review H&S submittals.  
 0930 Cerrone begins clean-up of limbs and debris along north side of property.  
 1000 Inspect equipment and complete paperwork. Discuss safety issues with J. Salvatore.  
 Discuss safety items for office trailer. Discuss securing of access steps and anchor system for trailer frame. Discuss access agreement for Arthur "Pete" Blanchard property. Inform Cerrone not to work within the property line. Call R. Killebrew to discuss site access issues, leave message.  
 1045 Discuss disposal of chipper debris with B. Bishop, as per Betsy all wastes will go to Terry's Trees. Discuss with J. Salvatore, Cerrone believes they have permission to deliver wood chips to plant manager from Dobbins. Inform Cerrone to leave wood chips on-site until further notice.  
 1130 Discuss site issues with R. Killebrew. I will need to contact local residents prior to tree clearing or trimming. Also, wood chips will go to Terrys as per B. Genau and not to private property.  
 1230 Review site operations and discuss safety issues. Discuss tree trimming with C. Prahl, he grants permission to remove silver painted limbs and dead or over-hanging branches as needed for fence installation. He provides phone number for Pete Blanchard. Call and set-up meeting for 1300 hours on 5/17/05. 1530 Complete daily paperwork and organize office trailer. 1730 Leave site.  
**Hours: 10**

**Signed: Bill Barnes**  
**Title: DSR**





## DAILY FIELD REPORT

**Project: Re-Grade & Cap Construction**  
**Project No.: 18984401.05002**  
**Owner: H.H. Dobbins / DuPont**  
**Project Manager: Russell Killebrew**

**DFR NO.:**  
**Date: 05/18/05**  
**Weather: Sunny, Mild**  
**Temperature: 40-68 F**

### VISITORS/CONTRACTORS

Name	Representing	Purpose
Robert Long Jr.	NY-DEC Haz-Waste Division	Site Inspection
Survey Crew (1)		Lay-out excavation depths in the southern ditch.

### Contractors

Name	Number of Personnel	Purpose
J. Salvatore, B. Sippel	Cerrone (6)	Clear trees from south ditch line.
M. Cerrone		Site mobilization
R. Brennen		
P. Bitterman, P. Duncan		

### Health and Safety

Conduct daily safety meeting discuss site arsenic levels, PPE, and equipment safety.

### Equipment

Hydraulic excavator 200 series  
 Tree chipping equipment and bucket truck  
 D6D Dozer - Not inspected

### Summary of Daily Activities

0700 Conduct daily safety meeting. Discuss days activities with B. Sipple.  
 0730 Cerrone continues tree removal in the southern ditch line. Review site conditions.  
 0800 Discuss safety issues with J. Salvatore, Cerrone working on H&S submittals.  
 0900 Discuss project issues with T. Stajkowski, prepare for weekly progress meeting.  
 1000 Weekly progress meeting, see minutes. 1115 Review site conditions discuss potential ACM piping with B. Sippel and J. Salvatore. Walk work area and discuss E&S controls.  
 1145 NY state inspector on-site, review site conditions. Discuss safety issues, waste mgmt, and E&S controls. Inspector requests DuPont review waste mgmt. process for tree stumps.  
 Call Russ Killebrew discuss request from NY-DEC. Discuss waste mgmt. issues, Russ will contact B. Bishop and determine path forward. 1245 Update project file and complete daily paperwork.  
 1400 Review site operations, review survey cut stakes along southern ditch line.  
 1500 Review tree removal along ditch line and discuss OHO in work area with crew, request line be marked with high-vis tape. Discuss mobilization schedule with B. Sippel.  
 1600 Complete daily paperwork and organize office trailer.  
 1630 Inspect work area and prepare site for departure. 1715 Leave site.

Hours: 10

**Signed: Bill Barnes**  
**Title: DSR**



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 001  
**Date:** 05/19/05 Thursday.  
**Weather:** Sunny  
**Temperature:** 48 - 75

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	5	Prime
Wendel Duchscherer	1	Surveyor
Jeff Shepard	URSD	Visit

### Health and Safety

Attend the tailgate safety meeting. Discuss expected hazards with the contractor. Discuss the importance of proper PPE use.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage

D6 Cat dozer onsite but needs seat belt.

### Summary of Daily Activities

D. Wooten arrives onsite. Tour the site with Bill Barnes and Bill Sipple.

Mark Cerrone Inc. (MCI) continues clearing on the west end of the south ditch. Walk the 1' cut area south of the south ditch. Note the concrete saddles to be removed. B. Barnes indicates what appears to be transite pipe (app. 6 joints).

Inspect the foundation of the juice building. The building appears to be a pole building with no concrete exposed to attach the geomembrane to.

Inspect the north ditch behind the Blanchard property. The soil has been disturbed during MCI's tree trimming activities. I notify the contractor that the erosion and sediment controls should have been in place prior to disturbance (silt fence). This will be done. I also advise that all remaining E&S controls be established prior to soil disturbance as indicated on the drawings. I also recommend installing red perimeter tape to isolate the work area.

The contractor wishes to use hay bales in lieu of the rock check dams in the south ditch. I have no problem with this.

Contact Russ Killibrew and discuss the above mentioned items. The site team can discuss viable alternatives to the check dams. The contractor can also use silt fence instead of the diversion berm in certain areas.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR



# Daily Field Report

**Project:** Lyndonville Cap  
**Project No.:** 18984401

**DFR No.:** DFR 001  
**Date:** 05/19/05

### Continue Summary of Daily Activities

Advise the contractor that he can subcontract to have the suspect piping in the 1' cut area sampled.  
Notify Russ of our findings concerning the concrete foundation on the juice building. I suggest that we can install a 2' anchor trench along the building perimeter to anchor our membrane instead of the proposed batten strips. He will discuss this with C. Kerns.  
Per Jeff Shepard of NECCO Park, their facility will be able to accept our concrete, asphalt and brick as long as the pieces do not get too big (4' x 4'). No cross ties will be allowed at Necco Park.  
I am notified by R. Killibrew that there may be post excavation sampling on the south ditch. I pass this on to the contractor. Jeff Salvatore contacts me and states that MCI was unaware of this and it could delay backfill operations. I notify Jeff that R. Killibrew is verifying if it is a requirement.  
Request a copy of all approved submittals.

Contractor hours for the week are \*\*\*.

### Special Interest Items

Termination at Juice Building.  
E&S controls.

**Signed:** David Wooten  
**Title:** DSR

## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 002  
**Date:** 05/20/05 Friday.  
**Weather:** Sunny  
**Temperature:** 48 - 70

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	5	Prime
Wendel Duchscherer	1	Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss equipment inspections, proper lifting techniqs.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage

D6 Cat dozer onsite but needs seat belt.

### Summary of Daily Activities

MCI continues clearing operations.

The surveyor laid out cut and fills yesterday and it appears that we have approximately 1110 cubic yards of cut and approximately 342 cubic yards of fills. This will leave 768 yards of material that will go to NECCO Park.

Begin hauling trees to Terry's Trees. 3 loads out today.

Approached by Mr. Prahler to cut additional trees from his property line. Direct the contractor to do so.

Discuss the rip rap swale behind the treatment unit with B. Sipple. There is no Detail 3 on the drawings and I advise Bill that we will field fit the swale utilizing Detail 10 on Page 6.

The inlet to the 24" pipe is shown on the drawings as an outlet. I advise Bill that we will construct it as an inlet.

Evan Harden with CEM onsite to sample the suspect pipe in the 1' cut area south of the south ditch. CEM pulls 2 samples for analysis.

MCI installs silt fence between Dobbins and the Blanchard property. Hay bales are installed at the outlet of the south ditch.

Notified by B. Sipple that the wire is off of it's support on the Juice Building.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 003  
**Date:** 05/23/05 Monday.  
**Weather:** Sunny  
**Temperature:** 48 - 70

### VISITORS

Name	Representing	Reason for Visit
Jeff Salvatore	MCI	Site visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	5	Prime
Wendel Duchscherer	1	Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss break areas, smoking areas and the location of restrooms.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage

D6 Cat dozer onsite but needs seat belt.

### Summary of Daily Activities

MCI continues clearing operations.

MCI pulls downed trees from the "saddle area".

Notified by Bob Vostiene of Monroe electric that he was not notified that we were going to start on his property. It was my understanding that this area was owned by the city. He was not upset and seemed pleased with cleaning the area up.

Complete silt fence placement along the south and SW property line. Exclusion zone of red tape established along this perimeter.

The surveyor indicates a section of the south ditch which indicates 2 different center lines between intermediate and final grades. I advise the surveyor that we will use the one that "makes sense".

MCI wants to haul stumps on Wed. This is short notice and we do not have manifests onsite nor have we set up trucking. Contact B. Bishop to find out where we are on trucking and hauling. She has sent our waste profile to WMI and is waiting on approval.

MCI believes that they can haul the materials cheaper than WMI. I advise J. Salvatore to suggest it in writing to B. Bishop.

MCI wants to start re-grade in the Type 3 area. I advise that we should have a water truck and air monitoring in place prior to this activity.

**Hours:** 10

**Signed:** David Wooten

**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Gap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 004  
**Date:** 05/24/05 Tuesday.  
**Weather:** Overcast/ cooler  
**Temperature:** 48 - 62

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	5	Prime
Wendel Duchscherer	1	Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss break areas, smoking areas and the location of restrooms.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

D6 Cat dozer onsite but needs seat belt.

### Summary of Daily Activities

Light rain onsite. MCI pulling and stockpiling stumps.

Load out 6 loads of trees and chips to Terry's Trees.

Install the construction entrance near the site trailer.

No other activities today.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 005  
**Date:** 05/25/05 Wednesday.  
**Weather:** Partly cloudy  
**Temperature:** 48 - 70

### VISITORS

Name	Representing	Reason for Visit
Mike Bracci	Golder and Assoc.	CQC
R. D. Long	NYDEC	Site visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer		Surveyor
Golder and Assoc.		QC/Air monitoring
NMCC	1	Labor

### Health and Safety

Attend the tailgate safety meeting. Discuss pinch points near equipment.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

D6 Cat dozer onsite but needs seat belt.

### Summary of Daily Activities

MCI pumping water from stump holes in the south ditch.

Load out 6 loads of trees and chips to Terry's Trees.

Begin receiving #2 stone for the cap.

Site visit by R. D. Long of NYDEC. Everything looks good but he would like to see air monitoring performed during stump pulling. The HASP does not call for air monitoring during clearing and grubbing operations but we will begin this activity to satisfy the state.

Attend the weekly progress meeting. The minutes will be attached to this report.

Review the PSA with Mike Bracci of Golder and L Toni with NMCC.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR















## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 008  
**Date:** 05/31/05 Tuesday  
**Weather:** Partly cloudy  
**Temperature:** 62 - 78

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	5	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring
NMCC	1	Labor

### Health and Safety

Attend the tailgate safety meeting. Discuss increased truck traffic and ground personnel.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

D6 Cat dozer onsite but needs seat belt.

### Summary of Daily Activities

MCI continues hauling stumps to High Acres. 8 loads out today.

Begin hauling soils to NECCO Park. 8 loads out today.

Begin cutting south ditch to grade moving from west to east. Bottom of excavation soft and wet in some areas.

We are encountering and inceased number of cross ties in the northern bank of the ditch. MCI will stockpile these for load out at a later date.

Water truck continues to be used as needed.

**Hours:** 9

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 009  
**Date:** 06/01/05 Wednesday.  
**Weather:** Partly cloudy  
**Temperature:** 62 - 78

### VISITORS

Name	Representing	Reason for Visit
Jeff Salvatore	MCI	Progress meeting
Mike Bracci	Golder	QC coordination
Kevin Coram	Gaines	MCI

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	5	Prime
Wendel Duchscherer		Surveyor
Golder and Assoc.	1	QC/Air monitoring
NMCC	1	Labor

### Health and Safety

Attend the tailgate safety meeting. Discuss decontamination procedures.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

D6 Cat dozer onsite but needs seat belt.

### Summary of Daily Activities

MCI continues hauling stumps to High Acres. 8 loads out today.

Due to the limited area behind the Dobbin's Facility, MCI wants to excavate and stockpile the soils to NECCO Park on the south end of the site. This is a good idea that will keep the stump trucks separated from the soil trucks.

Shuttle soils to the south end of the cap.

**Hours:** 9

**Signed:** David Wooten  
**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 010  
**Date:** 06/02/05 Thursday.  
**Weather:** Partly cloudy  
**Temperature:** 65 - 80

### VISITORS

Name	Representing	Reason for Visit
R. D. Long	NYDEC	Site visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring
NMCC	1	Labor

### Health and Safety

Attend the tailgate safety meeting. Discuss dust control and air monitoring.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

### Summary of Daily Activities

Continue stumps to WMI. 8 loads out today.

Continue soils to NECCO Park. 11 loads out today.

Trucks all hit the site at the same time. Tarping station did not work well. Advise MCI that a better system is needed.

Site visit by NYDEC. The following observations were given to D. Wooten. Trucks not on plastic during loading. All stockpiles must be covered to prevent fugitive dust. Exclusion zone not in place. I respond that the heavy truck traffic caught MCI off guard. They have been using sheeting under the trucks but when the excavation advanced they did not advance the sheeting (Bill tied up tarping) and this was corrected. I state that all areas have been roped off at the end of the day. The barrier is down to allow work and truck access. NYDEC asks if the exclusion zone can be taken to the building. I reply not without cutting off some of the Dobbins production and this we will not do. The disturbed cap area and disturbed ditch areas are roped off at the end of each day. All stockpiles were covered by the end of the day. Cross ties from the northern ditch bank are stockpiled on clean soils. The ties were relocated inside the exclusion zone on the east end and the surface cut to ensure the removal of any possible contamination.

All issues were corrected by the end of the day.

**Hours:** 9

**Signed:** David Wooten  
**Title:** DSR











## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 012  
**Date:** 06/06/05 Monday.  
**Weather:** Partly cloudy  
**Temperature:** 65 - 85

### VISITORS

Name	Representing	Reason for Visit
R. D. Long	NYDEC	Site visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Discuss good housekeeping.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

### Summary of Daily Activities

Complete stump hauling to WMI. 4 loads total today.

Continue to shuttle soils to the east end.

4 loads of soil to NECCO Park.

Site visit by R. D. Long of NYDEC. The site looks good. He wants to see the information on MCI's borrow sources next time he comes to the site.

D. Wooten samples the cross ties. 2 samples taken with MS and MSD taken for 1 sample. Too late for FED EX, will ship the samples out tomorrow. Label and pack samples on ice.

Later in the day MCI began pullin the concrete saddles from the 1' cut area. The slabs are much larger than originally believed. Several trees needed to come down to get the saddles. These are outside our LOD and will go to Terrys.

At approximately 1830 hours, MCI was staging the concrete in the ditch for removal. Upon setting down one of the larger pieces, water began to flow from the ditch. B. Sipple managed to locate the Town water representative and the water was cut off. This water line runs behind Bowman Apple. The line is old transite pipe and was only 12" below the ditch bottom. The water was turned off and a temporary supply furnished to Monroe Electronics and the small house nearby. I will recommend abandoning this line as we have to place and compact fill in this area. The city will give me a cost

**Hours:** 12

**Signed:** David Wooten  
**Title:** DSR

# Daily Field Report

Project: Lyndonville Cap  
Project No.: 18984401

DFR No.: DFR 012  
Date: 06/06/05

### Continue Summary of Daily Activities

for establishing services to the 2 parties from the roadway south of Monroe electronics. We would then be able to cut this line back toward Bowman and have approximately 4' of cover.

Contractor hours for the week are \*\*\*.

### Special Interest Items

Termination at Juice Building.

Water line in the south ditch.

Signed: David Wooten  
Title: DSR

## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 013  
**Date:** 06/07/05 Tuesday.  
**Weather:** Partly cloudy  
**Temperature:** 69 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Discuss "take 2". Good planning is the key to a safe and successful project.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

### Summary of Daily Activities

MCI continues excavation of the South Ditch. All materials are shuffled to the Type 3 cap area. MCI caps the broken water line. The city returns with a price of approximately \$1019.00 to re-locate the water line. This is discussed with R. Killebrew and he gives the go ahead for this work. The city will invoice MCI and they will submit the costs to DuPont via a change order. I load to NECCO Park. MCI has a large stockpile and will schedule extra trucks for tomorrow. All clean areas of the ditch are protected with silt fence. All work zones are taped off. All stockpiles are covered at the end of the day.

**Hours:** 12

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 014  
**Date:** 06/08/05 Wednesday  
**Weather:** Partly cloudy  
**Temperature:** 74 - 91

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	6	Prime
Wendel Duchscherer		Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Discuss hot and humid conditions. Drink plenty of water and take breaks as needed.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

### Summary of Daily Activities

MCI continues to haul soils to NECCO Park. 24 loads are shipped today.

MCI continues the South Ditch excavation. 1 truck is utilized to shuttle soils to the type 3 cap area.

MCI has encountered more cross ties in the north bank of the ditch. We need an answer on the ties as soon as possible.

MCI performs the asbestos abatement on the transite pipe in the 1' cut area south of the South Ditch. Air monitoring is performed and the proper ppe is worn (level C). The pipe is double bagged and loaded on a truck to WMI High Acres.

Attend the weekly progress meeting. The minutes will be attached to this report.

**Hours:** 11

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 015  
**Date:** 06/09/05 Thursday.  
**Weather:** Partly cloudy  
**Temperature:** 74 - 91

### VISITORS

Name	Representing	Reason for Visit
David Platt	DEC	site visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer		Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Again discuss the heat. Urge the workers to drink plenty of fluids.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

### Summary of Daily Activities

MCI continues to haul soils to NECCO Park. 19 loads are shipped today.

MCI continues the South Ditch excavation. 1 truck is utilized to shuttle soils to the type 3 cap area.

MCI is grading the South Ditch as excavation continues. Should complete the ditch this week.

Review the CQC plan and provide comments to MCI.

Update the cost tracking sheet and copy R. Killebrew for review.

Hours: 10

**Signed:** David Wooten  
**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 016  
**Date:** 06/10/05 Friday.  
**Weather:** Partly cloudy  
**Temperature:** 74 - 91

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer		Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Discuss hand safety and glove use.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

### Summary of Daily Activities

MCI completes the ditch excavation.

Per Jeff Salvatore, we need an answer on the cross ties as they want to begin the grading of the parking area next week. The ties have been stockpiled in the Type 3 cap area. I reply that the ties were sampled and the samples shipped to the laboratory. We can now only wait for an answer.

MCI shuts down early after completing the ditch.

Complete the meeting minutes and send them out for review.

**Hours:** 8

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 017  
**Date:** 06/13/05 Monday.  
**Weather:** Partly cloudy  
**Temperature:** 74 - 91

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Discuss hand safety and severe weather.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

### Summary of Daily Activities

MCI commences regrade of the parking area. Regrade begins in the SW corner moving east. MCI is concentrating on the area to the South of the Juice Building. Encounter several concrete pads during the excavation. The clean outs are protected and the others are removed if they will be above grade.

MCI exposes the slab on the Juice Building. The outer wall (metal) actually overhangs the slab. There is also wood supports below the slab. Battening to the slab will be extremely difficult if not impossible in some areas. The anchor trench, terminating at the building, may be the best solution. Jeff Salvatore contacts the site and notifies me that the ties are holding up his progress and that they are in the way of his work. MCI wants to be paid extra if they have to move the ties again. I reply that the ties were placed in the Type 3 cap area (were MCI wants to work now) by MCI. They could have placed the ties anywhere onsite as long as plastic was placed below them. J. Salvatore states that MCI may have the liner crew onsite as early as this week. I reply that they are not scheduled until 7/6/05 and that some notice would be appreciated. I also explain that the intermediate grades need to be submitted and approved prior to installation of any of the geosynthetics. No survey has been submitted at this time. Notify T. Stajkowski of my conversations with Jeff S. MCI sends 8 loads to NECCO Park today

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 018  
**Date:** 06/14/05 Tuesday.  
**Weather:** Partly cloudy  
**Temperature:** 74 - 91

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Discuss muddy conditions onsite. Watch footing and climbing on and off of equipment.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck.

### Summary of Daily Activities

MCI continues grade work in the cap area. The materials stockpiled yesterday are loaded out to NECCO Park. 14 loads are hauled today.

MCI is pumping collected rain water down the ditch. A filter sock is used at the discharge.

Surveyor onsite verifying grades.

MCI encountered rails that will be above the intermediate grades. These are relocated to be below grade.

Air monitoring is performed during all work.

The Juice Building foundation has been exposed. The slab is located well under and above the side walls. It will be extremely difficult to batten the liner to the slab. Will discuss terminating the liner at the building with the engineer.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 019  
**Date:** 06/15/05 Wednesday.  
**Weather:** Partly cloudy  
**Temperature:** 70 - 80

### VISITORS

Name	Representing	Reason for Visit
Ed Lutz	DuPont	Audit
Don Gwizdowski	URSD	Audit
Matt Forcucir	NYSDOH	Site Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	7	Prime
Wendel Duchscherer	2	Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Discuss muddy conditions onsite. Watch footing and climbing on and off of equipment.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

MCI continues grade work in the cap area.

Ed Lutz and Don Gwizdowski perform a site audit. Primary concern is ground personel near equipment in tight areas. This will be discussed in the taigate meefings.

Attend the progress meeting. The minutes will be attached to this report.

MCI is talking about mobilizing the liner crew this week. This is short notice and no subgrade has been approved. Per J. Salvatore, the cross ties are holding up their work and they will want extra money to load them out. With no subgrade approved I see no delay.

MCI continues to pump collected water from the ditch.

1 load is shipped to NECCO Park.

Representative from the Health Department onsite to see progress. I toured the work are with Matt and he seemed pleased with the work.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 020  
**Date:** 06/16/05 Thursday  
**Weather:** Partly cloudy  
**Temperature:** 70 - 80

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	6	Prime
Wendel Duchscherer	2	Surveyor
Golder and Assoc.	1	QC/Air monitoring

### Health and Safety

Attend the tailgate safety meeting. Discuss muddy conditions onsite and PPE use.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

MCI continues grade work in the cap area.

Light rain continues all day. Advise MCI that we do not want to create a mud hole.

Mci hauls 11 loads to NECCO Park.

J. Salvatore faxes the intermediate grades to me well after lunch. They would like to have this approved by tomorrow morning. The specification allows us 5 days to review submittals. I reply that we will do what we can. The schedule needs to be updated to indicate the advanced dates of these activities so that better planning can be developed.

J. Salvatore e-mails the team that the ties can go to WMI. He states that as they are not going to NECCO it is an extra. He wants to bring in a grapple unit as it is "Safer". The costs are submitted to T. Stajkowski. Tom agrees to the costs of the unit.

WMI is requiring that the ties be 6' maximum. This will require MCI to cut or break them as all ties are normally 8'. Contact Betsy Bishop and she will see if WMI will take them at 8'. They will take them but there will be a surcharge. This will still be cheaper than having MCI cut them by hand.

Complete my review of the intermediate grades in the portion of the Type 3 cap submitted and it looks good (completed review at 1900 hours). Will wait to hear from the engineer tomorrow.

Hours: 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 021  
**Date:** 06/17/05 Friday.  
**Weather:** Partly cloudy  
**Temperature:** 64 - 70

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	6	Prime
Wendel Duchscherer		Surveyor
Golder and Assoc.	1	QC/Air monitoring
Chenango	4	Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss muddy conditions onsite and PPE use.

Review the HASP and PSA with Chenango workers.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

Received the confirmation survey late yesterday. Contacted early this AM and J. Whitty agrees the portion reviewed is within tolerance.

Chenango mobilizes to the site to install geotextile over the approved portion of the Type 3 cap. Chenango decides to sew the textile in lieu of overlapping the 18". Monitor deployment and seams. The Golder technician onsite does not monitor seaming. I remind Karen that she is required to inspect all seams. Chenango also fills sand bags.

Once the seams are approved MCI begins placement of the stone. MCI builds a ramp at one end to keep the trucks on clean areas. Stone is then placed in a 2'-thick lift. Coverage continues without problems. The Golder technician initially was not monitoring the stone placement. I reminded the technician that monitoring during coverage to ensure that no damage is done to the textile is extremely important.

3 loads out to NECCO Park today.

MCI mobilized the excavator with the grappler for the ties. Loading began at 0800 hours and was completed at 0930 hours. 4 loads were shipped to WMI High Acres. Total time for the excavator and operator was 1.5 hours.

Approximately 1400 square yards of the Type 3 cap was installed. Final quantity will be based on

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 022  
**Date:** 06/20/05 Monday.  
**Weather:** Partly cloudy  
**Temperature:** 64 - 70

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	2	QC/Air monitoring
Chenango		Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss safety glasses and glove use.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

MCI completes grading the subgrade in the cap area.

MCI loads out and hauls 11 loads to NECCO Park.

Continue receiving stone for the type 3 cap.

Receive additional survey from MCI in the afternoon. They want approval of the ditch grades to begin cover soil placement. This is extremely short notice. The information was also sent to Jim Whitty. Per the contractor, if the survey is not approved they will not work tomorrow. I do not understand this thinking. We have several other tasks that can be worked on while waiting for survey.

Once again MCI is not following our submittal procedures. We are not conducting our required Preparatory or Initial Phase meetings to plan for new tasks.

Hours: 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 023  
**Date:** 06/21/05 Tuesday.  
**Weather:** Partly cloudy  
**Temperature:** 64 - 70

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	1	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.		QC/Air monitoring
Chenango		Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss slips trips and falls.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

I reviewed the survey data on a point to point basis and it looked ok. Jim Whitty notified me that he reviewed the material verses the existing conditions drawing and noted several points that indicated excessive cuts. Discuss this with Jeff Salvatore. Jeff contacts the surveyor and is told that there are differences in the Initial Conditions survey and the existing conditions drawing. I reply that it would be nice if we had a copy to use for our review. Jeff responds that he sent this in an e-mail on Friday. This was checked and it was found that the drawing was sent but Jim nor I can utilize the CAD format sent. Jeff stated that he couldnt understand how an engineering firm could not use CAD. I reply that if the drawing was properly submitted as called for in the specifications that I would not need CAD. I also remind Jeff that the last time we did this spur of the minute review we asked for more time.

MCI does not work although there is much to do.

**Hours:** 8

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 024  
**Date:** 06/22/05 Wednesday.  
**Weather:** Partly cloudy  
**Temperature:** 64 - 70

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	1	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.		QC/Air monitoring
Chenango		Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss heavy equipment and hand safety.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

I received the data needed to review the survey. The issue with the drawing was the difference between the original topo and the Initial Conditions Survey. The portion of the survey submitted is approved by J. Whitty and myself.

MCI begins clay placement in approved areas of the cap.

I receive and review the remaining survey on the ditch and the entire ditch is approved for cover soil.

MCI raises the manhole cover on the SW end of the cap.

Continue grade work in the Type 2 cap area.

Attend the progress meeting. The minutes will be attached to this report. The primary discussion centers around proper submittal procedures and time to review.

MCI is still resisting the need for QC on the site. The specifications are clear and state that a member of the QC staff will be onsite for all activities. Per J. Salvatore, he did not bid the project for this and feels that it is not needed. I reply that QC should monitor the clay placement in the ditch as the specifications call for visual observation for compaction, material type, particle size and thickness of the lifts. No action is taken by MCI.

**Hours:** 9

**Signed:** David Wooten  
**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 025  
**Date:** 06/23/05 Thursday.  
**Weather:** Partly cloudy  
**Temperature:** 68 - 76

### VISITORS

Name	Representing	Reason for Visit
Robert Long	NYDEC	Site visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc.	6	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.		QC/Air monitoring
Chenango		Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss slips trips and falls during ditch work.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

MCI continues cover soil placement in the South Ditch. Placment proceeding from West to East. 2 additional loads of ties are shipped to WMI.

Continue grade work on the cap.

Railroad ties are noticed in the North bank of the ditch. These ties protrude into the ditch and will not allow placement of the cover soil. I direct MCI to remove the ties needed to construct the ditch.

B. Sipple inquires to the correct placement of clay on the South slope of the ditch. He feels that the clay 3H:1V should extend completely up the bank to terminate at natural grade. I advise that the 3H:1V should tie in to the natural bank at the location it meets the natural slope (not the crest).

The upper, natural slope materials can be seeded and mulched. This will save quite a lot of clay. I discuss this with R. Killebrew and he agrees. If we tried to take the 3H:1V to the top of the slope we would be cutting well back into the bank and removing several large trees. This is not needed to construct the ditch as shown in the plans.

**Hours:** 9

**Signed:** David Wooten  
**Title:** DSR











## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 027  
**Date:** 06/27/05 Monday.  
**Weather:** Partly cloudy  
**Temperature:** 68 - 76

### VISITORS

Name	Representing	Reason for Visit
Don Gwizdowski	URSD	Visit
Dawn Walczak	URSD	Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	6	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	2	QC/Air monitoring
Chenango (CCI)	7	Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and ppe.  
 Review the HASP and PSA with the new Chenango personnel.  
  
  
  
 Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

MCI continues clay placement in the ditch.  
 I have reviewed the intermediate grades from the cap area and it is approved for liner deployment in all areas except the North toe. This needs to be dressed to accommodate the rock termination. Chenango mobilizes to the site. Stage material and fill sand bags until 1300. Golder and MCI work on dressing isolated areas of the cap surface.  
 Begin deployment of the 60 mil HDPE from the South toward the North. CCI performs trial welds prior to seaming. 11 panels deployed today. All deployed panels are seamed prior to leaving the site. Golder does a good job of monitoring placement and seaming. No non destructive testing was performed today. Approximately 29,000 square feet of smooth liner was installed today.  
 Due to the method of deployment and the unusually high temperatures, I allowed the installer to install the membrane in only their rubber boots. Dust was not an issue as the water truck was used liberally prior to deployment. The crew took frequent breaks to cool off and drink water. Glove and knife use was very good. Due to tight conditions at the access road I suggested that MCI discuss the possibility of parking at the Bowman apple facility with the owner. Don and Dawn visited the site to see the geosynthetics installation. Regretfully, the installation did not start until well after lunch. The CCI supervisor had a doctors appointment and did not arrive until 1300. I did  
**Hours: 11**

**Signed:** David Wooten  
**Title:** DSR

## Daily Field Report

**Project:** Lyndonville Cap  
**Project No.:** 18984401

**DFR No.:** DFR 027  
**Date:** 06/27/05

### Continue Summary of Daily Activities

get a chance to go over the different forms used to document the installation.  
We had a very good day considering the time the installation was started.  
Again discuss the terminations at the building. Due to the pole buildings battening is not practical.  
This will leave only one portion of the east wall of the main building that we can actually batten to.  
I suggest terminating the liner at the building just as we plan to do at the pole buildings. This will not only make the installation consistent, but will also remove the chance of adding undue stress to the membrane at the transition between battened and unbattened membrane. The membrane will still be battened at the concrete cleanout west of the Juice Building, the concrete cleanout North of the Juice Building and around the monitoring well North of the Juice Building. Boots will also be installed around the Juice Building downspouts and the 3" sewer line exiting the North side of the Juice Building. This was all discussed with the engineer and he agrees that this approach is logical based on the field assessment by the DSR.

Contractor hours for the week are \*\*\*.

### Special Interest Items

Termination at Juice Building.

Water line in the south ditch.

**Signed:** David Wooten  
**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 028  
**Date:** 06/28/05 Tuesday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 93

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	5	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	2	QC/Air monitoring
Chenango (CCI)	7	Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and ppe.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer, Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

MCI continues clay placement in the ditch.  
 CCI completes geomembrane placement over approved areas. Placement proceeds smoothly with no issues. QC has good coverage with 2 people monitoring placement and seaming. Trial welds are performed for all seamers prior to welding. Specimens are tested in accordance with the specifications. Air testing is performed on all seams. The installer wants to work late but I warn the supervisor that they should not deploy more than they can seam. The installer seams all panels and completes all but a few air tests. M. Bracci pulls all the required destructs for the fusion welds. M. Bracci delivers the destructs to the lab.  
 MCI stops work today at 1530 hours. I allow B. Sipple to leave for the day as he has really been working for the last 2 days.  
 Notice the installer fueling generators at 1700. I verify that all the generators have been shut down and allowed to cool. During my site walk at 1525, I notice the installer extrusion welding repairs. I do not see the QC representative. I am informed that Karen left the site at 1700. This means that no QC representative observed the trial weld after 1700 and that no one is monitoring extrusion welding. I notify the installer that all welding must cease. The installer states that he is not seaming, he is welding. I explain that extrusion fillet seaming is seaming and that is why we require trial

**Hours:** 11

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Kilebrew

**DFR NO.:** 029  
**Date:** 06/29/05 Wednesday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit
Don Gwizdowski	URSD	visit
Dawn Walczak	URSD	visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	3	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring
Chenango (CCI)	7	Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and ppe.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

CCI continues detail work on the deployed geomembrane. Discuss yesterdays problem with Karen of Golder. I explain that this can not happen again. QC must observe and document installation of the geosynthetics.

Dawn and Don visit the site and observe detail activities.

Attend the weekly progress meeting. The minutes will be attached to this report.

I am approached by the installer after lunch and he asks were the QC representative is. I reply that I don't know. He is ready to run trial welds and start vacuum testing. I state that he will have to wait for the QC representative. I then observe the trial weld. Karen returns to the site and I ask if she went to lunch. Karen replies that she returned to the Golder office. I reply that in the future she should notify the installer and all testing will wait until a QC representative is onsite.

I am contacted by Mark Cerrone as to the status of approval for stone. I reply that the approval will come from Golder after destruct results are in and the final walk is complete.

I notice Karen in the trailer making copies and the installer is running vaccum tests. I notify Karen again that she must observe 100% of non-destructive testing. If she needs copies she must tell the installer to wait or get additional help with inspection.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 030  
**Date:** 06/30/05 Thursday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit
Robert Long	NYDEC	visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring
Chenango (CCI)	7	Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and ppe.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

Wendell checks ditch grades.

Ditch is near completion. Advise MCI that hay bales should be placed in the ditch at the steep grade change. This is done.

CCI continues detail work on the deployed geomembrane. CCI and Golder representatives along with the DSR begin walking panels for completion. Geotextile is deployed over approved panels. CCI seams the textile and seams are inspected.

MCI begins placement of the Type 1 Cap stone. Placement goes well with little wrinkling of the geosynthetics noticed.

Notified by Bill Sipple that MCI did not install the Gas vents or gate posts prior to liner placement. This will require MCI to cut the synthetics, and drill the post holes and gas vents. I remind Bill that the soil that is removed will be taken to NECCO Park at no extra charge to DuPont.

Receive 8 joints of 24" corrugated HDPE pipe for the culvert.

Once again QC has focused on only the liner. I remind Mike Bracci that installation diagrams will be needed for both gas vents.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 031  
**Date:** 07/01/05 Friday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring
Chenango (CCI)	6	Geosynthetics

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress, cutting with utility knives.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.

### Summary of Daily Activities

Wendell has completed ditch survey and is comfortable with the shots. Ditch regrade is complete pending our review of the survey.

Chenango continues detail work on the liner. Continue installation of the textile over approved liner.

MCI continues stone placement on the Type 1 Cap. Work continues to proceed smoothly with no heavy wrinkling of the synthetics noted.

Detail work is almost complete. The Golder technician wanted to leave the site early with CCI still welding. I remind Bill Sipple that she must be onsite for welding and testing of the geosynthetics.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 032  
**Date:** 07/05/05 Tuesday  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	4	Prime
Wendel Duchscherer		Surveyor
Golder and Assoc.	1	QC/Air monitoring
Chenango (CCI)	2	Geosynthetics
Fox Fencing	2	Fence Installer

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and PPE.

Review the HASP and PSA with the 2 Fox Fence employees.

Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator

D4 Cat dozer. Water truck, small dual drum asphalt roller.

Bobcat with auger.

### Summary of Daily Activities

MCI continues placement of the Type 1 Cap stone.

Chenango continues installation of the textile over approved liner. Chenango cuts the holes for the gas vents, ballards and gate posts.

Fox fencing drills the holes for the gates. These had to be moved slightly due to underground obstructions. Fox also drills the holes for the gas vents and ballards.

I again remind the QC representative that he should monitor the gas vent installation as installation diagrams are required.

MCI obtains 6" schedule 40 pvc pipe for the gas vents. Slots are cut into the pipe with a cut saw. This is not as the vents are designed. The 4" factory slotted pipe inside the solid pvc pipe is not installed. This was not approved by DuPont nor did the QC representative question the installation. This will result in a credit to DuPont.

The ballards were formed out of 4" galvanized fence pipe. This detail was not specified in the project record documents but I remind Bill Sipple that they will have to be painted and it will be extremely difficult to paint galvanized pipe. The ballards are filled with concrete.

The filter pack for the gas vents are as specified.

Ballards and gate posts are concreted in place as required. Soils from the excavations are loaded

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 033  
**Date:** 07/06/05 Wednesday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit
Tom Clutter	URSD	replace D. Wooten

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC/Air monitoring
Chenango (CCI)	2	Geosynthetics
Fox Fencing		Fence Installer

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and PPE.  
 Review the HASP and PSA with the 2 Fox Fence employees.  
  
  
 Equipment listed below is inspected and ready to work.

### Equipment

200 Hatachi excavator, 416 Cat Backhoe, box truck for storage, Hatachi 200 excavator  
 D4 Cat dozer. Water truck, small dual drum asphalt roller.  
 Bobcat with auger.

### Summary of Daily Activities

Tom Clutter onsite to spell D. Wooten this week.  
 MCI continues stone placement.  
 Chenango completes boots around gate posts, ballards and gas vents. Complete placement of the composite on the Type 2 cap.  
 MCI begins excavation for installation of the 24" culvert. There is an 15" pvc line that intersects the manhole at the point we need to install our culvert. Discuss with Russ that we could cut this pipe back out of our way, remove the section in the manhole, and install our culvert. The 15" pvc line drains the low area to the north of the cap and the ditch to the east of the site. By installing an eccentric reducer, we could reduce the 15" line to 6". We could install a "Y", and tie in the east ditch to this pipe and install it in another location at the manhole. This is agreed to and MCI will be paid for the materials and time to install the additional pipe only (we had to remove the box and pipe from the ditch as part of the project).  
 Culvert installation proceeds smoothly. MCI bacfills the section in the roadway. I remind the MCI representative that the material was to be compacted in 1' lifts. The response is we will use the big roller at the end and compact it heavy.  
 Grades are checked on the pipe continuously during installation.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 034  
**Date:** 07/7/05 Thursday.  
**Weather:** Partly cloudy  
**Temperature:** 70 - 85

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	4	Prime
Wendel Duchscherer	1	Surveyor
Golder and Assoc.	1	QC

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and Slip Trips and Falls

Equipment listed below is inspected and ready to work.

### Equipment

D6 dozer, IT24 Loader, box truck for storage, 200 excavator

D4 Cat dozer. , dual drum asphalt roller.

### Summary of Daily Activities

MCI begins installing 24"diameter HDPE corrugated culvert pipe and inlet working towards manhole. Surveyor checking grades on stone and the 24"corrugated HDPE culvert. MCI uncovering manhole getting ready to install the 24"corrugated HDPE culvert. After uncovering manhole surveyor checks 24"corrugated HDPE pipe for drainage into manhole.

Golder on site to watch placement of stone on geosynthetics. QC works till noon and MCI assumes responsibility for QC. Golder feels comfortable with Duane Olds watching the work.

MCI removes the 15" plastic pipe from manhole and 4" plastic pipe from the field drain. MCI enlarges the hole in the manhole getting ready to install the 24" and 6" pipes into the manhole.

MCI cuts 2 pieces of 24" corrugated HDPE to install around the vents before installing the stone.

**Hours:** 10

**Signed:** Tom Clutter  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 035  
**Date:** 07/8/05 Friday  
**Weather:** Partly Sunny  
**Temperature:** 78 - 92

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	4	Prime
Wendel Duchscherer	1	Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss Slip, trips and falls and heat stress.

Equipment listed below is inspected and ready to work.

### Equipment

D6 Dozer, Cat IT 24 Rubber Tire Loader box truck for storage, Komushu 200 excavator  
 D4 Cat dozer, small dual drum asphalt roller.

### Summary of Daily Activities

MCI working on placing and grading of stone on the cap systems. Placement going well with no wrinkling of geosynthetics.  
 Receiving stone for the cap construction and bedding for the 24" corrugated HDPE culvert.  
 MCI working on modifying catch basin to accept the 24" culvert and the 15" plastic pipe.  
 Bill Sipple and Mark Cerrone install the 24" culvert into the catch basin and cut off the 15" plastic line and install an eccentric reducer from 15" to 6".  
 They then added a 6" tee and 1 street elbow for the field drain then into the catch basin.  
 Surveyor on site to check drainage of the pipes entering the catch basin everything good.  
 MCI then bricks up the manhole and installs bedding stone around the 24" culvert.  
 After lunch MCI completes back fill of the pipes and manhole.  
 Bill Sipple and Mark Cerrone install the inlet for the 24" culvert and install the rip rap around inlet.  
 Bill Sipple leaving at the end of the day. He will be going to another MCI site. Duane Olds will then be SSO and Mark Cerrone will take over as supervisor.

**Hours:** 8

**Signed:** Tom Clutter  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 036  
**Date:** 07/11/05 Monday  
**Weather:** Partly Sunny  
**Temperature:** 78 - 92

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	3	Prime

### Health and Safety

Attend the tailgate safety meeting. Discuss Slip, trips and falls and PPE

Equipment listed below is inspected and ready to work.

### Equipment

D6 Dozer, Cat IT 24 Rubber Tire Loader box truck for storage, Komushu 200 excavator  
D4 Cat dozer, small dual drum asphalt roller.

### Summary of Daily Activities

City of Lyndonville drops off the invoice for the water line relocation.

MCI begins work on Type 2 cap (soil cap). Talked to Mark Serrone about the soil having a lot of large lumps. He had them raked out and hauled away.

Placement of soil cap going good with no wrinkles in the geosynthetics.

MCI started working on the swale on the North slope on the east corner of the property. Mark Cerrone asked if we could use stone on the West end of the north slope near the gate entrance under the pine trees instead of soil. I talked to Russ Killebrew about it and we agreed to trade off of soil and stone. Talked to Mark Serrone about the trade off and he agreed.

MCI continues to place and compact soil on the type 2 cap.

Received stone for the swale on the North slope.

Mark begins to dress up the entrance and fixes the area where the drainage ditch enters the 6" plastic pipe and adds rip rap.

Receive stone for the termination.

**Hours:** 8

**Signed:** Tom Clutter  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 037  
**Date:** 07/12/05 Tuesday  
**Weather:** Partly Sunny  
**Temperature:** 78 - 92

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	6	Prime
Wendel Duchscherer	1	Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and house keeping

Equipment listed below is inspected and ready to work.

### Equipment

D6 Dozer, Cat IT 24 Rubber Tire Loader box truck for storage, Komushu 200 excavator  
 D4 Cat dozer, small dual drum asphalt roller.

### Summary of Daily Activities

MCI brings in 3 people to help on site clean up. They pick up sand bags left by the liner crew. They are taking down the construction fencing that is no longer needed along with some silt fence.

MCI putting down stone in the swale on the North slope.

Working on termination of type 2 cap.

Surveyor checking the stone grades and laying out the fence line.

Seeding crew to be in tomorrow to hydroseed. Jeff Salvatore told me he talked to the seeding crew and they recommend using a little different seed mixture due to the lack of rain. I talked to Jim Whitty about their recommendation he said they need to make sure it will sustain growth.

Jeff Salvatore talks to the seeders and said it would sustain growth they were adding a little hearty seed.

Mark Cerrone said the remaining 2 employees( Olds and Burger) would be leaving to other MCI sites. Mark will be here with seeding crew tomorrow.

**Hours:** 8

**Signed:** Tom Clutter  
**Title:** DSR











## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 039  
**Date:** 07/14/05 Thursday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit
Tom Clutter	URSD	

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	2	Prime
Wendel Duchscherer	1	Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and PPE.

Review the HASP and PSA with the 2 Fox Fence employees.

Equipment listed below is inspected and ready to work.

### Equipment

MCI has removed all equipment from the project. 1 dozer and 1 excavator is still onsite to perform work for Dobbins Apples.

### Summary of Daily Activities

D. Wooten back onsite.

MCI has 2 men onsite installing ECB. Install along the slope near the 24" culvert. Begin install along the north slope.

Discuss staffing with Mark Cerrone. I explain that there needs to be a supervisor and SSO onsite at all times. Mark replies that Mike Moss (one of the ECB installers) will serve in this capacity. This is the same gentleman that asked if the protective plastic cover on the ECB rolls should be removed prior to unrolling.

Discuss Fox Fencing working on Saturday and explained that MCI would need a SSO and supervisor while the fence crew worked.

Walk the site with Tom. The tie in to the catch basin with the culvert was successful and looks good. Hydroseeding of all disturbed areas is complete.

I notice that the wrong stone was utilized for construction of the swale on the North slope. The stone should have been a rip rap (D50 @ 6"). MCI used a number 4 stone. I will discuss this with the engineer. Mark Cerrone asks why Tom allowed the use of this stone. I replied that it was not Tom Clutters responsibility to direct construction nor to provide QC over construction. This is now MCI's responsibility with Golder no longer onsite.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR







## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 040  
**Date:** 07/15/05 Friday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	3	Prime
Wendel Duchscherer		Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and PPE.

Equipment listed below is inspected and ready to work.

### Equipment


### Summary of Daily Activities

MCI installs ECB in the South Ditch. Installation goes well.

No other activities onsite. I do not understand the fence crew working tomorrow when we have had 2 good days to work.

MCI has still not provided a SSO for the site. I send an e-mail concerning the work continuing without qualified supervision.

Russ Killebrew and Tom Stajkowski both reply that no subcontractors will be allowed onsite without a SSO and supervisor. I notify MCI.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR

## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 041  
**Date:** 07/16/05 Saturday  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	1	Prime
Wendel Duchscherer		Surveyor
Fox Fencing	4	Fence Install

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and PPE.  
 Go over the HASP and PSA with Fox.  
 Bill Sipple onsite as the SSO.

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Equipment listed below is inspected and ready to work.

### Equipment

Bobcat with auger.

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### Summary of Daily Activities

Fox Fencing begins installation of the posts for the North perimeter fence.  
 The gentleman purchasing the Blanchard property approaches me and states that some of our stone (at the liner termination) is on his property. I advise B. Sipple and this is pulled back. The gentleman then states that we can not install the fence on the property line but must pull back 5'. I contact Tom Stajkowski and Tom replies that we will construct the fence as specified. All parties reviewed our design and it was approved. The gentleman then states that the first DSR onsite promised to clean up all limbs, wood and trash under the trees on his property. I reply that we can not go on the property without an access agreement. He replies that he will give us an access agreement. I then give the gentleman the phone numbers for R. Killebrew and for the local attorney. Fox Fencing notifies me that they did not install a pole near the east gate. To install it now would require punching a hole in the liner. The installer suggests that the post can be moved eastward without affecting the integrity of the fence. This is one more example of why the full time QC is needed. The installer then informs me that he has installed posts and hardware for 8' fence and gates for the East gate. I reply that this is only a 6' gate and fence, just cut it to fit. He replies that he has already ordered the materials. I reply that he can install 8' but that DuPont will pay for 6'. He agrees.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 042  
**Date:** 07/18/05 Monday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	1	Prime
Wendel Duchscherer		Surveyor
Fox Fencing		Fence Install
Anastassi Paving	5	Paving
Quality Inspection Service	1	QC for Paving

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress and PPE.  
 Go over the HASP and PSA with Anastassi personnel.  
  
  
  
 Equipment listed below is inspected and ready to work.

### Equipment

Paver, 2 smooth drum rollers, miscellaneous wacker units.

### Summary of Daily Activities

Anastassi mobilizes and begins installation of the base coat. Begin having small issues with the truck drivers (on the site without required ppe, sharp turns on the stone, poor body position when cleaning beds). I discuss our rules and procedures again with the Anastassi supervisor and this is corrected. Mark Cerrone should be handling the safety on the site but he is working on another project for Dobbins Apples.  
 Quality Inspection onsite pulling the required samples and cores.  
 The Anastassi supervisor approaches me about drainage behind the Juice Building. Once the base was in it pitches badly toward the building. I suggest placing the topcoat over the concrete slab and adjusting the thickness near the building to pitch the materials to the East as designed. We will also have to adjust the thickness near the metal addition to the main building to properly drain the area South of this addition.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR









## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 044  
**Date:** 07/20/05 Wednesday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	2	Prime
Wendel Duchscherer		Surveyor
Fox Fencing		Fence Install
Anastassi Paving	6	Paving
Quality Inspection Service	1	QC for Paving

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress, controlling the truckers onsite and the need for frequent breaks.

Equipment listed below is inspected and ready to work.

### Equipment

Paver, 2 smooth drum rollers, miscellaneous wacker units.

### Summary of Daily Activities

Anastassi begins topcoat of the asphalt layer. The supervisor is doing a much better job of controlling the truck drivers.

MCI is onsite but are now working for the owner of the apple business east of the site.

Due to a problem with the asphalt plant, Anastassi can not finish today. The guys did a great job with the topcoat behind the building and it looks as if the drainage has improved greatly.

Attend the weekly progress meeting. The minutes will be attached to this report.

The fence crew will not be available this week. The only day they can be onsite is Saturday. We will be complete on all activities Thursday and it makes no sense to work only fencing on a weekend. Per our discussion, I will be available next week so MCI will schedule for Monday if possible.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR









## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 046  
**Date:** 07/22/05 Friday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	2	Prime
Wendel Duchscherer	1	Surveyor
Fox Fencing		Fence Install
Anastassi Paving		Paving
Quality Inspection Service		QC for Paving

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress, controlling the truckers onsite and the need for frequent breaks.

Equipment listed below is inspected and ready to work.

### Equipment

Paver, 2 smooth drum rollers, miscellaneous wacker units.

### Summary of Daily Activities

MCI continues dressing up all areas of the site.

Jeff Plummer with Dobbins uses a 5 gallon bucket and pours water in several areas of the Type 1 cap. The water on the Southwest portion appears to settle on the slab at the West door of the juice building. The water on the south side hits the "channel" that was formed in the asphalt and slowly drains away from the building as designed. Jeff feels that this is unacceptable and that heavy rains will enter the building. The team looks at raising the door (and slab) on the West side. The alternative would be to install a drain at the West end of the slab. MCI brings out their representative and he states that the door would be difficult and there would be no guarantee that we could raise the slab enough to drain the water. MCI will work up a cost for installing the drain at the West slab, and two door drains at the south doors. The West drain will drain into the South ditch, and the door drains to the South will tie in to the roof drain at the Southeast corner of the juice building. The water on the south side hits the "channel" that was formed in the asphalt and

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 047  
**Date:** 07/25/05 Monday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	2	Prime
Wendel Duchscherer	1	Surveyor
Fox Fencing		Fence Install

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress, controlling the truckers onsite and the need for frequent breaks.

Equipment listed below is inspected and ready to work.

### Equipment

Paver, 2 smooth drum rollers, miscellaneous wacker units.

### Summary of Daily Activities

Drainage improvements approved by R. Killebrew. Cerrone notified and mobilizes the equipment needed.

MCI saw cuts the concrete slab to the west of the juice building. 2 men are used to cut and remove the asphalt South of the juice building to install the door drains.

MCI removes the asphalt and stone to expose the membrane. Care is taken to minimize damage. To the West, the membrane is cut and the subgrade cut to promote drainage. All impacted soils are transported to NEECO Park (2 loads). To the south no cutting of the membrane was required.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 048  
**Date:** 07/26/05 Tuesday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	2	Prime
Wendel Duchscherer	1	Surveyor
Fox Fencing	3	Fence Install

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress, controlling the truckers onsite and the need for frequent breaks.

Equipment listed below is inspected and ready to work.

### Equipment

Paver, 2 smooth drum rollers, miscellaneous wacker units.

### Summary of Daily Activities

MCI cleans the excavation. Install bedding stone and new 8" pvc drain pipe for the west drain.

Continue asphalt removal on the south side of the building.

Fox Fence onsite to continue installation of the fence and gates.

Hours: 10

**Signed:** David Wooten  
**Title:** DSR



## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 049  
**Date:** 07/27/05 Wednesday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit
Bob Genau	DuPont	progress check

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	2	Prime
Wendel Duchscherer	1	Surveyor
Fox Fencing	3	Fence Install

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress, controlling the truckers onsite and the need for frequent breaks.

Equipment listed below is inspected and ready to work.

### Equipment

Paver, 2 smooth drum rollers, miscellaneous wacker units.

### Summary of Daily Activities

Bob Genau onsite to check progress.

Heavy rains last night. Over 1.5" in less than 24 hours. The current resident of the Blanchard property complained to a representative of Dobbins late yesterday that we were flooding his property. Upon my arrival at the site, little or no water was in the drainage outlet, and no water was on his property. This is excellent drainage compared to before the installation of the 24" culvert. Previous rains would pond in his yard for days not hours. Terry Woodworth, the city representative arrived onsite at the residents request. I indicated to him our improvements and explained that no additional water has been sent to this property. Drainage from the site has always gone to the North slope. Terry did not see any problems with our work. He did explain that the storm line we tied into is only 18" and handles all the water in the area.

I did note some heavy erosion on the north slope and advise MCI that this will be repaired. The primary cause of the erosion was that the ecb had been opened to grade the soil from the Type 2 to the asphalt and the ecb was left open.

MCI places pipe bedding and installs the new 8" pvc drain pipe for the west slab. Continue to cut asphalt on the south side.

Fox fence completes the installation of the fence and gates.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 050  
**Date:** 07/28/05 Thursday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	3	Prime
Wendel Duchscherer		Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress, controlling the truckers onsite and the need for frequent breaks.

Equipment listed below is inspected and ready to work.

### Equipment


### Summary of Daily Activities

Chenango onsite and completes membrane and textile repair.

MCI completes the installation of the south door drains and tie in to existing roof drain. MCI pours concrete to repair this area as asphalt would be difficult around building. Gates are short and the extensions have been ordered by MCI.

At my request, the mayor visited the site today. I explained the improvements to Mr. Scarr and also indicated the north slope and drainage improvements. He seemed pleased with the work we have done.

**Hours:** 10

**Signed:** David Wooten  
**Title:** DSR





## DAILY FIELD REPORT

**Project:** Lyndonville Cap Construction  
**Project No.:** 18984401.05002  
**Owner:** Dobbins/DuPont  
**Project Manager:** Russell Killebrew

**DFR NO.:** 051  
**Date:** 07/29/05 Friday.  
**Weather:** Partly cloudy  
**Temperature:** 78 - 90

### VISITORS

Name	Representing	Reason for Visit

### Contractors

Name	Number of Personnel	Purpose
Mark Cerrone Inc. (MCI)	3	Prime
Wendel Duchscherer		Surveyor

### Health and Safety

Attend the tailgate safety meeting. Discuss heat stress, controlling the truckers onsite and the need for frequent breaks.

Equipment listed below is inspected and ready to work.

### Equipment


### Summary of Daily Activities

MCI sets the drainage vault for the west drain and ties in to the 8" pvc pipe. MCI completes the asphalt repair. The grate for the vault will not be ready until Tuesday of next week. I discuss this with Ward Dobbins and he sees no problem with this.

MCI repairs the washouts on the north slope and reinstalls the ecb. Additional seed was placed on all repaired areas.

MCI dresses the entrance road with excess stone. The road is lower than the asphalt and this may need additional effort at a later date.

MCI cleans up the site and demobilizes their remaining equipment. The loader will be left to install the grate on Tuesday.

**Hours:** 10

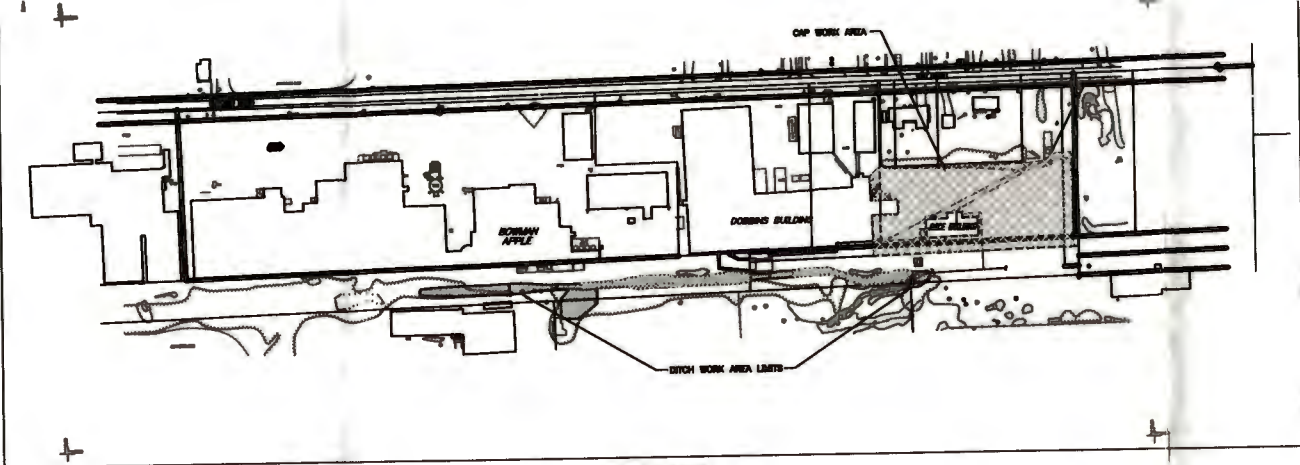
**Signed:** David Wooten  
**Title:** DSR



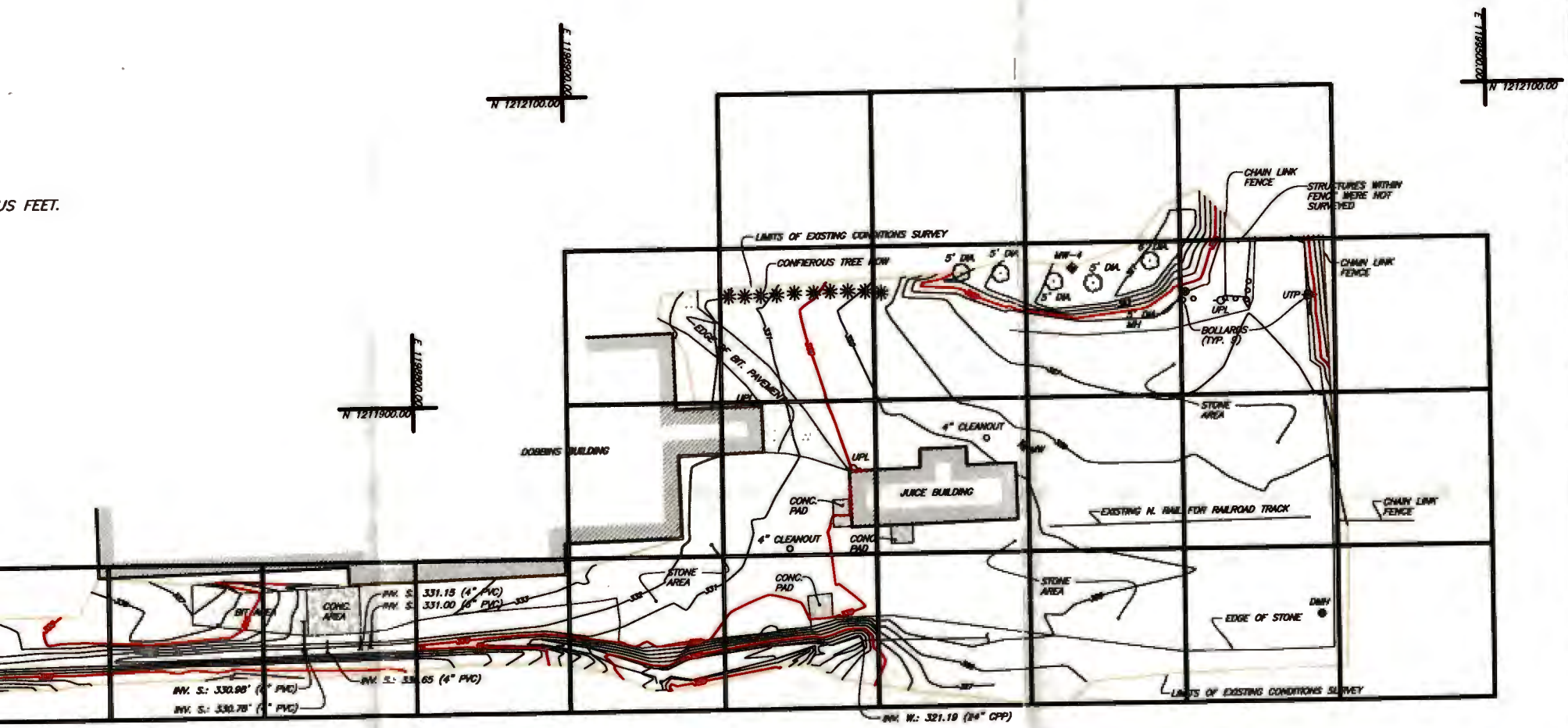
**APPENDIX D**

**EXCAVATION CONFIRMATION SURVEY RESULTS AND  
FINAL SURVEY QUANTITY RESULTS**





SITE MAP  
Not to Scale



US FEET.

N 1212100.00  
E 1198900.00

N 1212100.00  
E 1198900.00

N 1211900.00  
E 1198900.00

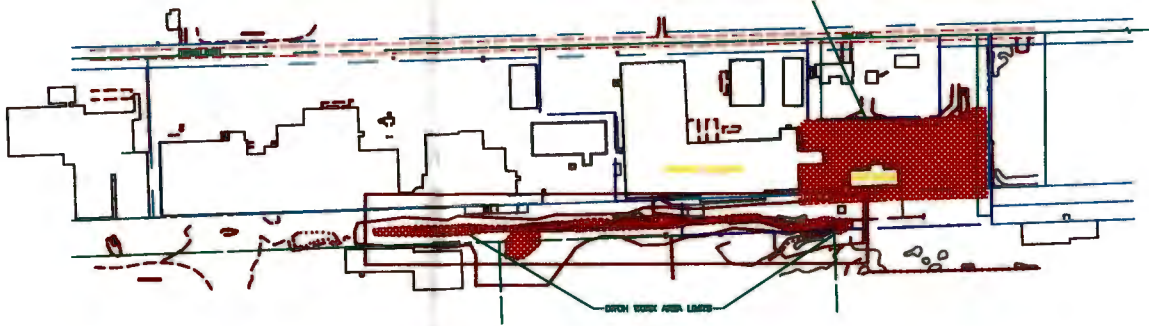
INV. S.: 330.98' (4" PVC)  
INV. S.: 330.78' (4" PVC)  
CONC. AREA  
BIT AREA  
INV. S.: 331.15 (4" PVC)  
INV. S.: 331.00 (4" PVC)  
INV. S.: 330.65 (4" PVC)

INV. W.: 321.19 (24" CPP)

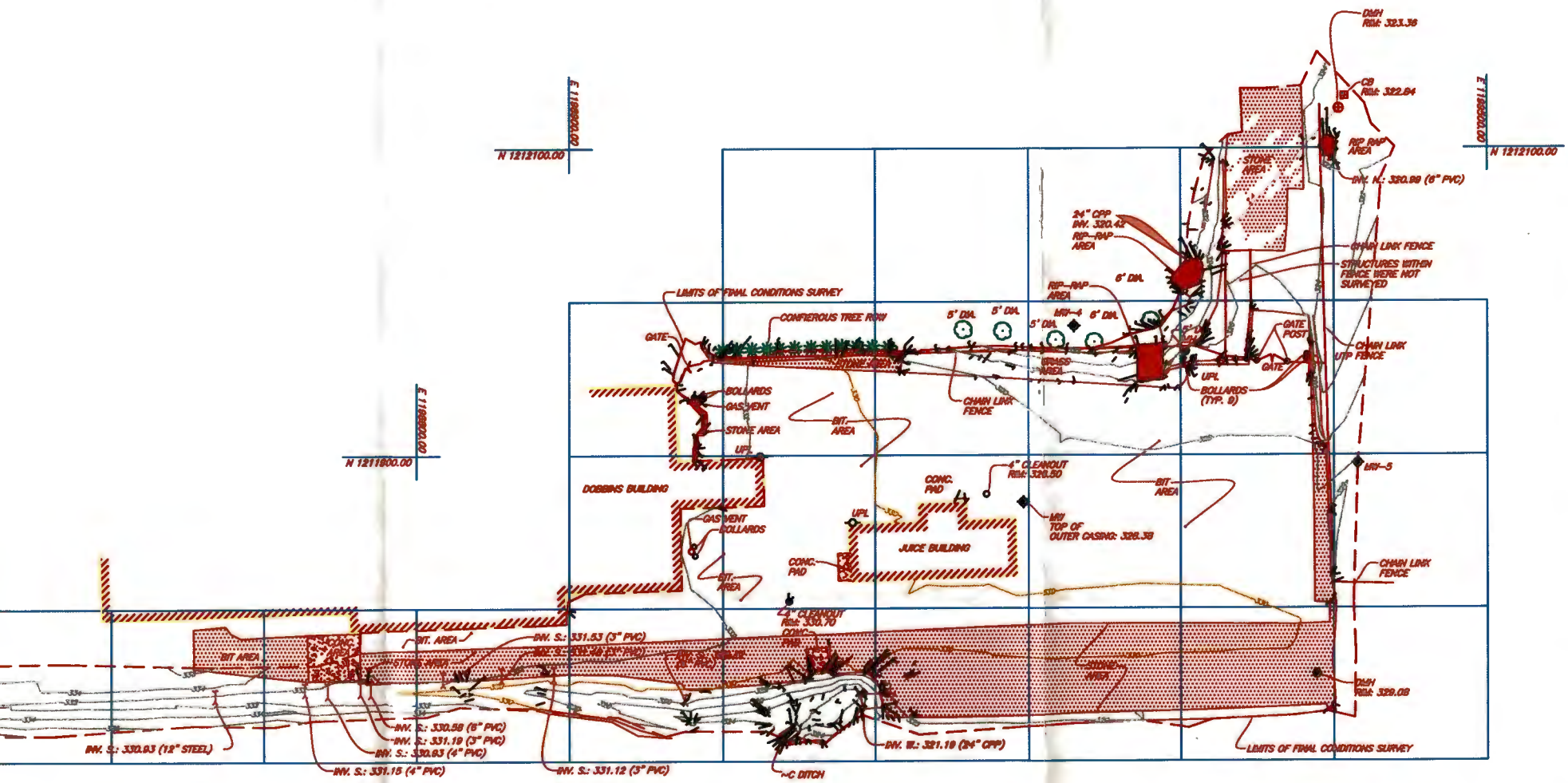
CLIENT: **DuPont**

PROJECT: **Post-Remediation Engineering Report  
The Lyndonville West Avenue Site, Lyndonville, NY**

TITLE: **Existing Site Conditions  
Prior to Construction Activities**



**SITE MAP**  
NOT TO SCALE



NOTE: FOR DETAILS REFER TO THE E SIZE DRAWING IN APPENDIX D

CLIENT:	<b>DuPont</b>
PROJECT:	Post-Remediation Engineering Report The Lyndonville West Avenue Site, Lyndonville, NY

TITLE:	<b>Final Site Conditions</b>
--------	------------------------------

N 1211000.00

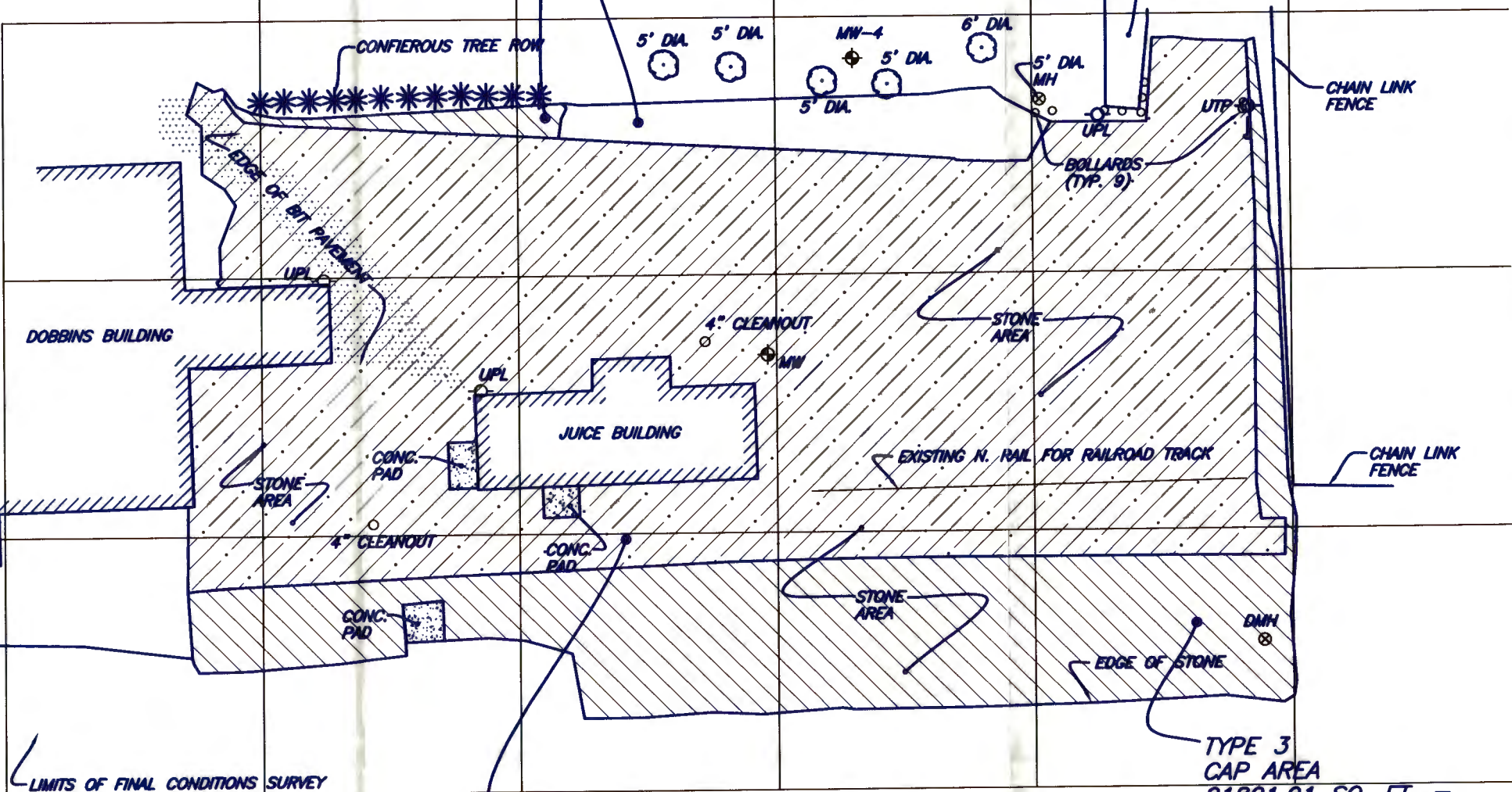




TYPE 2  
CAP AREA  
931.20 SQ. FT. =  
103.47 SQ. YDS.

TYPE 2  
CAP AREA  
3725.24 SQ. FT. =  
413.92 SQ. YDS.

STRUCTURES WITHIN  
FENCE WERE NOT  
SURVEYED



DOBBINS BUILDING

JUICE BUILDING

STONE AREA

STONE AREA

STONE AREA

LIMITS OF FINAL CONDITIONS SURVEY

TYPE 3  
CAP AREA  
21801.91 SQ. FT. =  
2422.43 SQ. YDS.

TYPE 1  
CAP AREA  
68134.77 SQ. FT. - 4542.45 SQ. FT. = 63592.32 SQ. FT.  
63592.32 SQ. FT. = 7065.81 SQ. YDS.

PREPARED BY: WENDEL DUCHSCHERER  
DATE: 7/29/2005

CLIENT:

DuPont

TITLE:

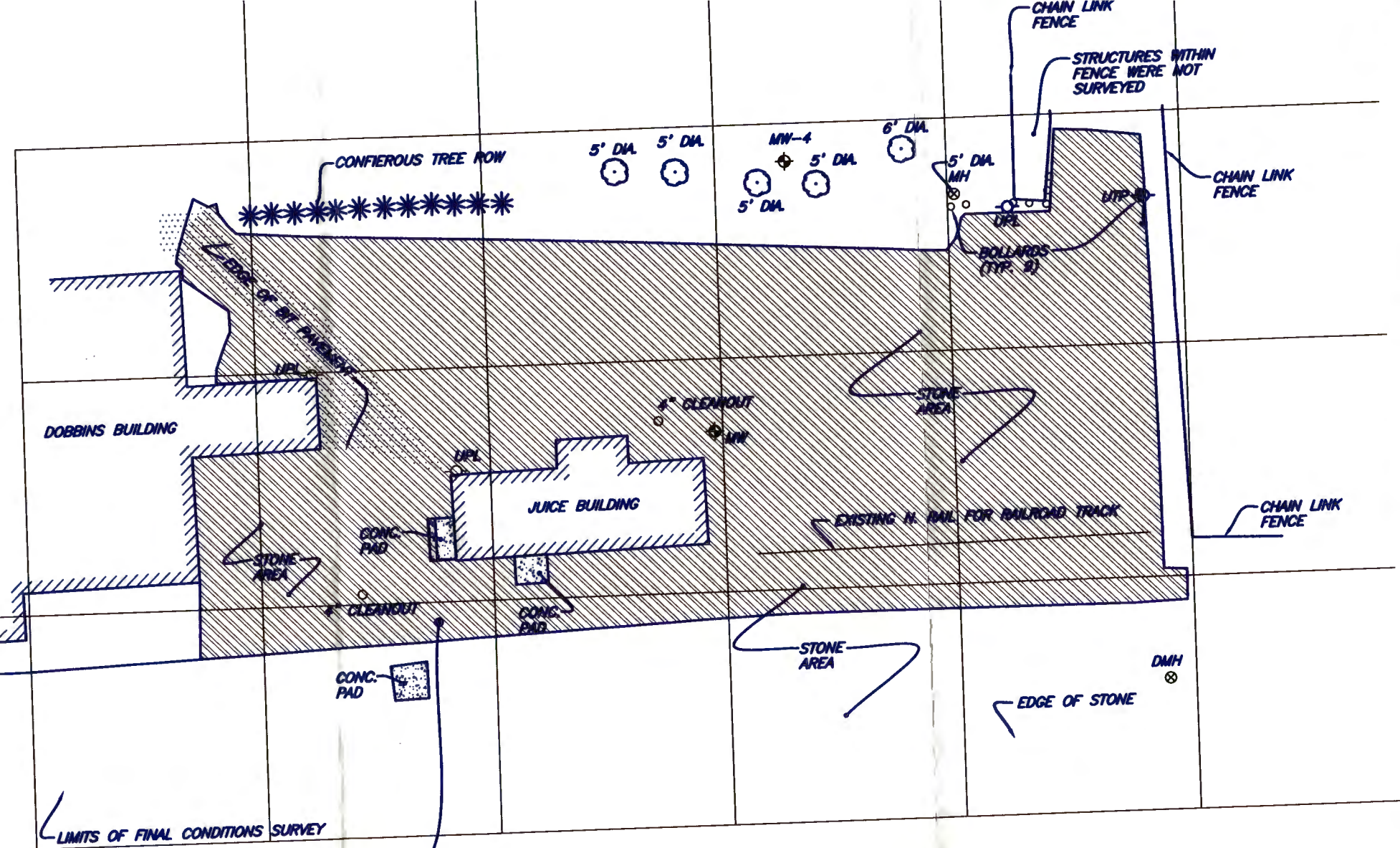
PROJECT:

Post-Remediation Engineering Report  
The Lyndonville West Avenue Site, Lyndonville, NY

Cap Areas





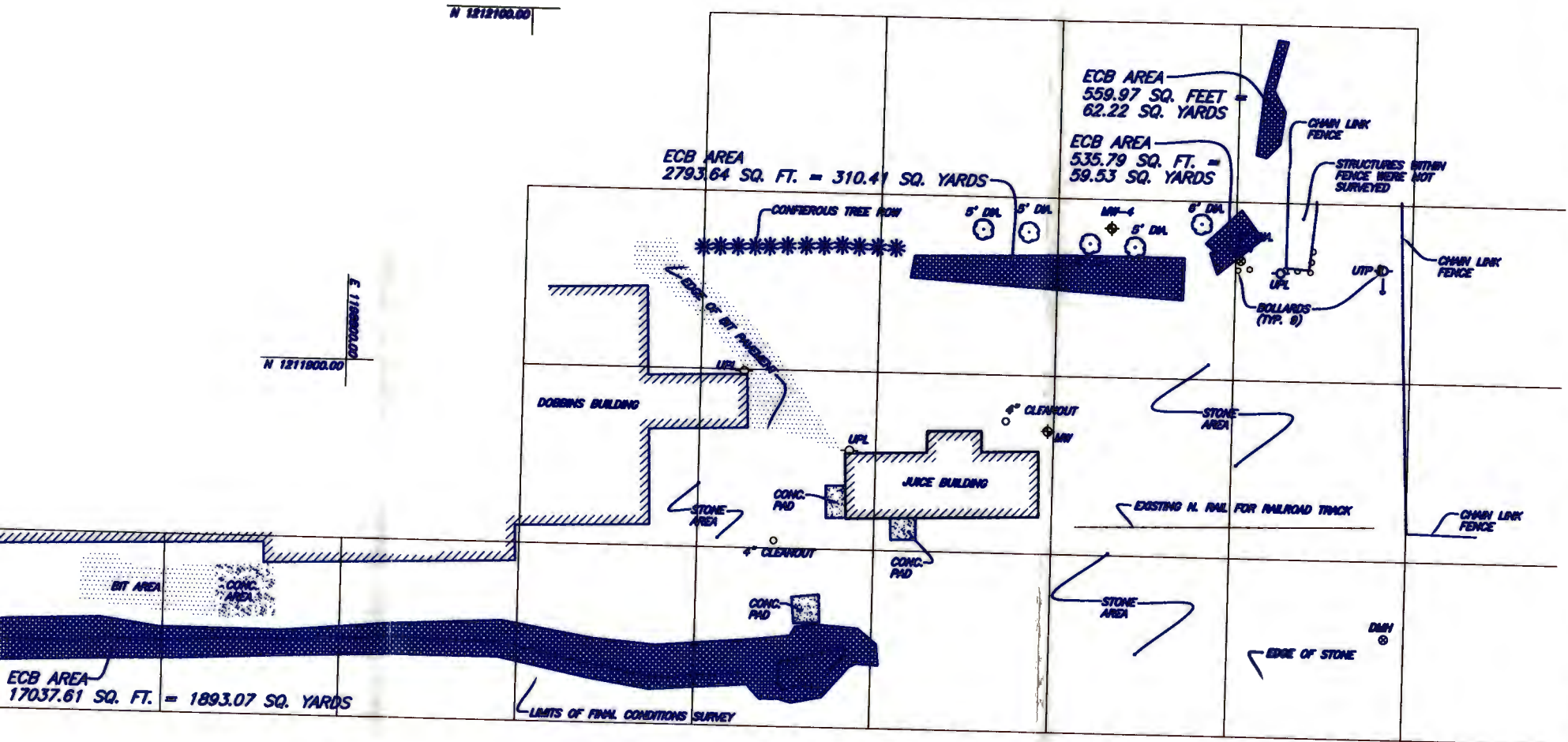


ASPHALT AREA:  
 68708.10 SQ. FT. - 4654.35 SQ. FT. = 64053.75 SQ. FT.  
 64053.75 SQ. FT. = 7117.08 SQ. YDS.

PREPARED BY: WENDEL DUCHSCHERER  
 DATE: 7/29/2005

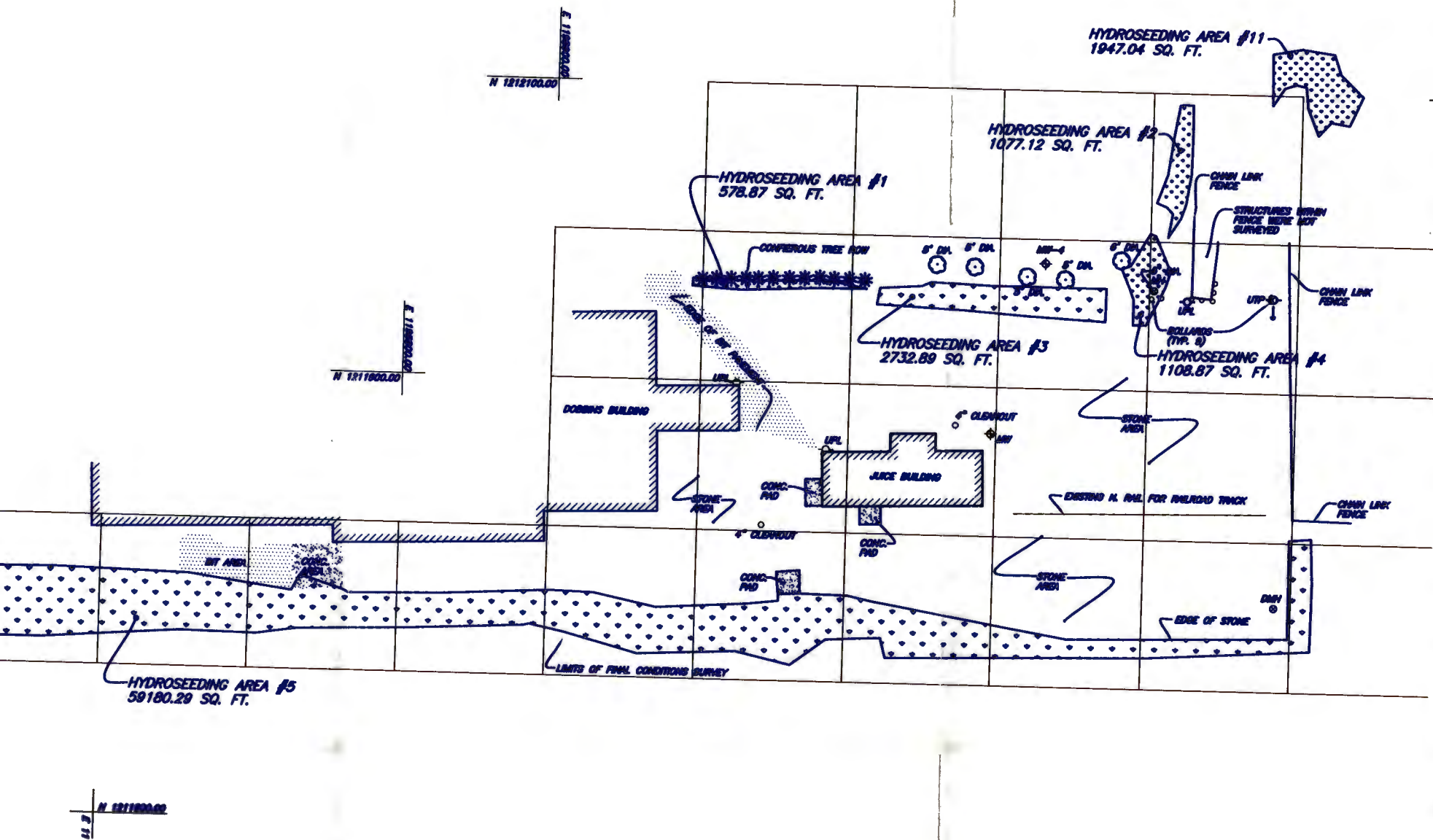
CLIENT:	<b>DuPont</b>	TITLE:	<b>Asphalt Replacement</b>
PROJECT:	Post-Remediation Engineering Report		





PREPARED BY: WENDEL DUCHSCHERER  
DATE: 7/29/2005

CLIENT:	<b>DuPont</b>	TITLE:	<b>Erosion Control Blanket</b>
PROJECT:	Post-Remediation Engineering Report The Lyndonville West Avenue Site, Lyndonville, NY		
DATE:			



PREPARED BY: WENDEL DUCHSCHERER  
DATE: 7/29/2005

CLIENT:	<b>DuPont</b>		TITLE:	<b>Hydroseeding Area</b>
PROJECT:	Post-Remediation Engineering Report The Lyndonville West Avenue Site, Lyndonville, NY			
DATE:				

**APPENDIX E**

**QUALITY ASSURANCE INSPECTIONS AND TESTING OF  
GEOSYNTHETIC CAP COMPONENTS**





**MARK CERRONE INC.**

P.O. BOX 3008  
2358 Maryland Avenue  
Niagara Falls, NY 14304  
Tel: (716) 282-5244  
Fax: (716) 282-5245

**SUBMITTAL**

Date: 6/23/095

Owner: E.I du Pont de Nemours and Company  
c/o URS Diamond Corporation  
400 Northpark Tower Center  
1000 Abernathy Road, NE, Suite 900  
Atlanta, GA 30328  
Attn: Mr. Russell Killebrew, PE

Project: Lyndonville Landfill Restoration  
Job #: 2005-36

Sub/ Supplier: \_\_\_\_\_

Copies	Submittal #	Description
3	02278-SL-1	Smooth Liner Material Submittal

Specification: 2278

Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPROVED     APPROVED AS NOTED     REVISE & RESUBMIT     REJECTED  
(ENGINEER, PLEASE CHECK ONE)

*Jeffrey Salvatore*

See attached memo

Reviewed by Contractor /

Approved by Third Party QC Manager

*David [Signature]* 6/25/05  
Approved by Owner/Engineer / Date

CC:

---

**MEMORANDUM**

---

**GOLDER ASSOCIATES INC.**

2221 Niagara Falls Boulevard, P.O. Box 4069  
Niagara Falls, New York 14304-4069

Telephone No. 716-215-0650  
Fax No. 716-215-0655

---

Date Sent: June 23, 2005

Project Number: 053-9437

TO: Jeff Salvatore

FR: M. Bracci

RE: Smooth Geomembrane

Total number of pages (including this cover page): 1

---

**SUBMITTAL DESCRIPTION: SMOOTH GEOMEMBRANE**

The smooth geomembrane quality control certificates were submitted by Chenango on June 21, 2005. The quality control test results meet the requirements of the specifications and the material is acceptable for shipment to the site.

Golder Associates Inc.

Michael Bracci



# POLYFLEX, INC.

2000 W. Marshall Drive Grand Prairie, Texas 75061 USA

888-765-9359 972-337-7118 FAX 972-337-7233

## CERTIFICATION DOCUMENTS

To: Chenango Contracting, Inc.  
29 Arbutus Road  
Johnson City, NY 13790

Date: 6/17/2005  
Poly-Flex Proj #: 250181  
Customer PO:  
Project Name: Dupont  
Order No: Pre-Cert

Attn: Carl Burdick  
Fax No: 807-729-2415

Number of pages including cover: 4

Departure Date: Pre-Cert  
Destination:  
Carrier:

Trip No: Pre-Cert

Additional Notes:

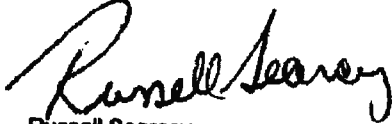
Freight: PPD

### Distribution of Documents:

Shipment Inspection Sheet: 1  
Roll Certification: 1  
Rein Certification: 1  
Other:

Attached please find documents for the above referenced shipment. Please let us know if you have any questions.

Sincerely,



Russell Searcy  
888-765-9359 ext 7269









Poly-America  
 Ms. Dee Avaritte  
 9723377407  
 2000 W. Marshall  
 GRAND PRAIRIE TX 75051

SHIPPED TO:  
 POLY-AMERICA, L.P.  
 Grand Prairie, Tx  
 2000 WEST MARSHALL DR  
 GRAND PRAIRIE TX 75051

Material: Our / Your reference  
 FINATHENE 37120 @ (441840) /

Please find below test data and pertinent information on ATOFINA HDPE material shipped to your plant.

Batch D40621210 Quantity 192,690 LB Railcar GPLX076700

Characteristic	Unit	Value
Density	g/cc	0.939
Melt Index 2.16/190	g/10 min	0.14
Melt Index 21.5/190	g/10 min	12.8
Railcar Prefix	-	GPLX
Railcar Number	-	076700
Railcar Seal Numbers	-	AB134044

Sincerely,  
 Curt Clark  
 Bayport Laboratory Supervisor

ATOFINA  
 12212 Fort Road  
 Pasadena, TX 77507

P. O. Box 5010  
 LaPorte, TX 77572

281-474-6963

Questions? Contact Customer Service at 1-800-344-3462

Date  
 08/19/2004  
 Purchase order term/date  
 181161  
 Delivery term/date  
 81309071 000001 / 08/19/2004  
 Order Num  
 30674953 000001  
 Customer number  
 80117916



**MARK CERRONE INC.**

P.O. BOX 3008  
2358 Maryland Avenue  
Niagara Falls, NY 14304  
Tel: (716) 282-5244  
Fax: (716) 282-5245

**S U B M I T T A L**

Date: 6/23/095

Owner: E.I du Pont de Nemours and Company  
c/o URS Diamond Corporation  
400 Northpark Tower Center  
1000 Abernathy Road, NE, Suite 900  
Atlanta, GA 30328  
Attn: Mr. Russell Killebrew, PE

Project: Lyndonville Landfill Restoration  
Job #: 2005-36

Sub/ Supplier: \_\_\_\_\_

Copies	Submital #	Description
3	02278-TL-1	Textured Liner Material Submittal

Specification: 2278

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPROVED     APPROVED AS NOTED     REVISE & RESUBMIT     REJECTED  
(ENGINEER, PLEASE CHECK ONE)

*Jeffrey Salvatore*

See attached memo

Reviewed by Contractor /

Approved by Third Party QC Manager

*Dennis A. [Signature]* 6/25/05  
Approved by Owner/Engineer / Date

cc:



---

**MEMORANDUM**

---

**GOLDER ASSOCIATES INC.**

2221 Niagara Falls Boulevard, P.O. Box 4069  
Niagara Falls, New York 14304-4069

Telephone No. 716-215-0650  
Fax No. 716-215-0655

---

Date Sent: June 2, 2005

Project Number: 053-9437.311

TO: Jeff Salvatore

FR: M. Bracci

RE: Textured Geomembrane

Total number of pages (including this cover page): 1

---

**SUBMITTAL DESCRIPTION: TEXTURED GEOMEMBRANE**

The attached textured geomembrane roll certification was provided to Golder on June 1, 2005. Chenango is anticipating that Roll Number GT-6-04-2169-5 will be used for the project. This roll meets the requirements of the specification and is acceptable for use. Golder will verify this roll is used during installation.

Golder Associates Inc.

  
Michael Bracci

CHENANGO CONTRACTING, INC.  
29 ARBUTUS ROAD  
JOHNSON CITY, NEW YORK 13790  
(607) 729-8500 FAX (607) 729-2415

facsimile transmittal

To: MIKE BRACCI Fax: 716 215 0655

Company: GARDER Date: 6/1/05

From: CARL BURDICK Pages: 6 (including cover)

Re: DUPONT

Urgent  For Review  Please Comment  Please Reply  Please Recycle

Roll # 2169 IS WHAT  
WE HAVE IN STOCK!

REC'D JUN 1 5  
BUFFALO, NY

002/006

06/01/2005 WED 10:02 FAX 607 729 2415 Chenango Contracting

CERTIFICATION SHEET			DATE: July 28, 2004		POLY-FLEX, INC.											
PROJECT NO: 241162			ORDER NO: ProCertification		2000 W. Marshall Drive Grand Prairie, Texas 75051											
TRIP NO: ProCertification			CERTIFIED BY: <i>[Signature]</i>													
TEST DESCRIPTION	THICKNESS	CARBON BLACK	TEAR	PUNCTURE	TENSILE @ YIELD	ELONG @ YIELD	TENSILE @ BREAK	ELONG @ BREAK	CAR. BLK. DISPERSION	DENSITY	NCTL	OXIDATIVE INDUCTION TIME	ASPERITY HEIGHT	OVEN AGING	UV RESISTANCE	
ASTM METHOD	D5984	D1803	D1004	D4833	D6693	D6693	D6693	D6693	D5558	D1506	D5397	D3895	GM 12	D3895	D5985	
(modifications)	min/avg										App.					
UNITS	mls	%	lb	lb	ppf	%	ppf	%		gm/cc	hrs	min.	MILS	%	%	
SPECIFICATION	51/57	2.0-3.0	42	90	128	12	90	100	Cat 1 or 2	0.940	300	100	19	55	50	
ROLL NUMBER	BLEND		(Start)													
GT-6-04 2168-5	8240667	54/65	2.3	47	136	145	14	166	497	Cat 1	0.948	Pass	160	28	58	70
GT-6-04 2169-5	8240667	57/65	2.3	47	136	145	14	166	497	Cat 1	0.948	Pass	160	28	58	70
GT-6-04 2160-5	8240667	55/65	2.6	48	137	153	18	164	457	Cat 1	0.948	Pass	160	28	58	70
GT-6-04 2161-5	8240667	54/65	2.6	49	137	153	16	164	457	Cat 1	0.948	Pass	160	28	58	70
GT-6-04 2162-5	8240667	55/65	2.6	48	137	153	16	164	457	Cat 1	0.948	Pass	160	28	58	70
GT-6-04 2163-5	8240667	54/65	2.6	47	136	157	18	132	288	Cat 1	0.948	Pass	160	27	58	70
GT-6-04 2164-5	8240667	56/64	2.6	47	136	157	18	132	288	Cat 1	0.948	Pass	160	27	58	70
GT-6-04 2165-5	8240667	56/66	2.6	47	136	157	18	132	288	Cat 1	0.948	Pass	160	25	68	70
GT-6-04 2166-5	8240667	56/65	2.5	48	137	156	17	164	473	Cat 1	0.948	Pass	160	25	58	70
GT-6-04 2167-5	8240667	54/65	2.5	48	137	156	17	164	473	Cat 1	0.948	Pass	160	25	58	70
GT-6-04 2168-5	8240667	54/65	2.5	48	137	156	17	164	473	Cat 1	0.948	Pass	160	23	58	70
*GT-6-04 2169-5	8240667	54/64	2.6	49	137	146	16	168	511	Cat 1	0.946	07/26/04	160	23	58	70
GT-6-04 2170-5	8240667	54/65	2.6	49	137	146	16	168	511	Cat 1	0.946	07/26/04	160	23	58	70
GT-6-04 2171-5	8240667	54/64	2.6	49	137	146	16	168	511	Cat 1	0.948	07/26/04	160	23	58	70
GT-6-04 2172-5	8240667	54/65	2.4	48	136	164	16	163	487	Cat 1	0.948	07/26/04	160	23	58	70
GT-6-04 2173-5	8240667	54/65	2.4	48	136	164	16	163	487	Cat 1	0.948	07/26/04	160	23	58	70
GT-6-04 2174-5	8240667	54/64	2.4	48	136	164	16	163	487	Cat 1	0.948	07/26/04	160	23	58	70

JUN. 23. 2005 2:06PM GOLDBER ASSOC BUFFALO

NO. 989 P. 3





**Poly-Flex**  
DATE 27-Jul-04

Material Pre-Certification List

Poly-Flex # **240152**

# 607998

Customer: **GROVE STREET**

	Blend	Roll Number	Weight	Roll Description
1	8240667	GT-6-04-2158- 5	3,680	23' X 500' X .060HDT
2	8240667	GT-6-04-2159- 5	3,685	23' X 500' X .060HDT
3	8240667	GT-6-04-2160- 5	3,680	23' X 500' X .060HDT
4	8240667	GT-6-04-2161- 5	3,680	23' X 500' X .060HDT
5	8240667	GT-6-04-2162- 5	3,680	23' X 500' X .060HDT
6	8240667	GT-6-04-2163- 5	3,690	23' X 500' X .060HDT
7	8240667	GT-6-04-2164- 5	3,650	23' X 500' X .060HDT
8	8240667	GT-6-04-2165- 5	3,690	23' X 500' X .060HDT
9	8240667	GT-6-04-2166- 5	3,675	23' X 500' X .060HDT
10	8240667	GT-6-04-2167- 5	3,680	23' X 500' X .060HDT
11	8240667	GT-6-04-2168- 5	3,680	23' X 500' X .060HDT
12	8240667	GT-6-04-2169- 5	3,665	23' X 500' X .060HDT
13	8240667	GT-6-04-2170- 5	3,690	23' X 500' X .060HDT
14	8240667	GT-6-04-2171- 5	3,650	23' X 500' X .060HDT
15	8240667	GT-6-04-2172- 5	3,690	23' X 500' X .060HDT
16	8240667	GT-6-04-2173- 5	3,680	23' X 500' X .060HDT
17	8240667	GT-6-04-2174- 5	3,655	23' X 500' X .060HDT
18	8240667	GT-6-04-2175- 5	3,685	23' X 500' X .060HDT
19	8240667	GT-6-04-2177- 5	3,690	23' X 500' X .060HDT
20	8240667	GT-6-04-2178- 5	3,670	23' X 500' X .060HDT
21	8240667	GT-6-04-2179- 5	3,690	23' X 500' X .060HDT
22	8240667	GT-6-04-2180- 5	3,670	23' X 500' X .060HDT
23	8240667	GT-6-04-2181- 5	3,680	23' X 500' X .060HDT
24				
25	shipped pieces		84,585	
26				

I certify that all roll conditions were inspected and approved.

CEM  
Truck Loader

MAY. 18. 2004 9:42PM POLY AMERICA RM 972 337 7407 1/001 FAX 510. 1837 P. 3/4

CoA Date: 06/18/2004



### Certificate of Analysis

Shipped To: POLY AMERICA 2000 W. MARSHALL GRAND PRAIRIE TX 75051 USA  Recipient: Dee Averette Fax: 1-872-337-7407	CFC Delivery #: 86627745 PO #: 174338 Weight: 181800 LB Ship Date: 05/18/2004 Package: BULK Mode: Hopper Car Car #: MSPX009046 Seal No: 135578
---	---

Product:  
MARLEX POLYETHYLENE K306 BULK

NCTL ASTM D8307-05 Appendix (modified), Avg: >500 Hours  
(not tested on each lot)

Lot Number: 824067

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.100	g/10ml
HLMI Flow Rate	ASTM D1238	11.20	g/10ml
Density	ASTM D1505	0.9370	g/cm <sup>3</sup>

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP. However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Jackie Edwards  
Certification Systems Specialist

For CoA questions contact Peter Schelmer at 713-289-4788



MAY. 13. 2004 8:09PM

POLY AMERICA RM 972 337 7407

L/001 FAX NO. 1690 P. 5/6



CoA Date: 05/12/2004

**Certificate of Analysis**

Shipped To: POLY AMERICA 2000 W. MARSHALL GRAND PRAIRIE TK 75051 USA  Recipient: Oes Avarite Fax: 1-972-337-7407	CPC Delivery #: 88625022 PO #: 174338 Weight: 181000 LB Ship Date: 05/12/2004 Package: BULK Mode: Hopper Car Car #: PSPX003080 Seal No: 136684
--	---

Product: MARLEX POLYETHYLENE K500 BULK

NCTL, ASTM D5397-95 Appendix (modified), Avg: >500 Hours  
 (not tested on each lot)

Lot Number: 8240657

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.080	g/10ml
HLMI Flow Rate	ASTM D1238	11.90	g/10ml
Density	ASTM D1505	0.9370	g/cm <sup>3</sup>

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP. However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Jackie Edwards  
 Certification Systems Specialist

For CoA questions contact Peter Schairman at 713-288-4798

DuPont Corporate Remediation Group



Date: 06/24/05

Mark Cerrone Inc.  
P. O. Box 3009  
Niagara Falls, N. Y. 14304

**TRANSMITTAL LETTER**  
**CRG Project No. 507619**

The following items are being sent (For completion and Resubmit):

- As attachments     under separate cover via \_\_\_\_\_
- Shop drawings     Prints                     Change order     Plans     Copy of letter
- Samples             Specifications     Document         Other: Submittal Response

No. of Copies	Date	No. of Pages	Description
2	06/25/05		02277-02 Geocomposite Individual Roll Certs

These items are transmitted for the following purpose:

- For approval     For your use     As requested     For review and comment
- Approved as submitted     Approved as noted     Returned for corrections
- Resubmit missing information                     Submit \_\_\_\_\_ copies for distribution
- Return \_\_\_\_\_ corrected prints             For bids due \_\_\_\_\_     Prints returned after loan

Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

cc: Russ Killebrew  
T. Stajkowski  
Jeff Salvatore

Signed: David Wooten

**MARK CERRONE INC.**

P.O. BOX 3008  
2358 Maryland Avenue  
Niagara Falls, NY 14304  
Tel: (716) 282-5244  
Fax: (716) 282-5245

**S U B M I T T A L**

Date: 10-Jun-05

Owner: E.I du Pont de Nemours and Company  
c/o URS Diamond Corporation  
400 Northpark Tower Center  
1000 Abernathy Road, NE, Suite 900  
Atlanta, GA 30328  
Attn: Mr. Russell Killebrew, PE

Project: Lyndonville Landfill Restoration  
Job #: 2005-36

Sub/ Supplier: \_\_\_\_\_

Copies	Submittal #	Description
1	02277-2	Physical Properties of Geocomposite

Specification: 2277

Comments: This product meets the specifications of the project.

APPROVED     APPROVED AS NOTED     REVISE & RESUBMIT     REJECTED  
(ENGINEER, PLEASE CHECK ONE)

*Jeffrey Salvatore*  
Reviewed by Contractor

See Attached Memo  
Approved by Third Party QC Manager

*David P. [Signature]* 6/25/05  
Approved by Owner/Engineer / Date

cc:



---

**MEMORANDUM**

---

**GOLDER ASSOCIATES INC.**

2221 Niagara Falls Boulevard, P.O. Box 4069  
Niagara Falls, New York 14304-4069

Telephone No. 716-215-0650  
Fax No. 716-215-0655

---

Date Sent: June 23, 2005

Project Number: 053-9437

TO: Jeff Salvatore

FR: M. Bracci

RE: Geocomposite

Total number of pages (including this cover page): 1

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**SUBMITTAL DESCRIPTION: GEOCOMPOSITE**

The attached geocomposite roll certification was provided to Golder on June 9, 2005. Chenango is anticipating that 2 of the 5 rolls listed on the certification will be used for the project. These rolls meet the requirements of the specification and are acceptable for use. Golder will verify these rolls are used during installation.

Golder Associates Inc.

Michael Bracci

June 9, 2005  
Chenango Contracting, Inc.  
29, Arbutus Road,  
Johnson City, NY 13790

**Ref. : Lydonville Cap Construction  
Transnet 220-2-8**

We certify that the Transnet 220-2-8 drainage composite, meets the project requirements as stated in the specifications. The properties listed in this section are:

Property	Test Method	Unit	Required Value	Qualifier
<b>Geonet<sup>3</sup></b>				
Mass per Unit Area	ASTM D 5261	lbs/ft <sup>2</sup>	0.162	Minimum
Thickness	ASTM D 5199	mil	220 ± 20	Range
Carbon Black	ASTM D 4218	%	2.0	Minimum
Tensile Strength	ASTM D 5035	lbs/in	45	Minimum
Melt Flow	ASTM D 1238 <sup>2</sup>	g/10 min	1.0	Maximum
Density	ASTM D 1505	g/cm <sup>3</sup>	0.94	Minimum
<b>Composite</b>				
Ply Adhesion	GRI GC7	lb/in	2.0	MARV <sup>5</sup>
Transmissivity <sup>1</sup>	ASTM D 4716	m <sup>2</sup> /sec	2.0 x 10 <sup>-5</sup>	Minimum
<b>Geotextile<sup>3,4,1</sup></b>				
Fabric Weight	ASTM D 5261	oz/yd <sup>2</sup>	8.0	MARV
Grab Strength	ASTM D 4632	lbs	230	MARV
Thickness	ASTM D 1777	mils	100	MARV
Grab Elongation	ASTM D 4632	%	50	MARV
Tear Strength	ASTM D 4533	lbs	95	MARV
Puncture Resistance	ASTM D 4833	lbs	120	MARV
Mullen Burst	ASTM D 3786	psi	250	MARV
Permittivity	ASTM D 4491	sec <sup>-1</sup>	1.50	MARV
UV Resistance at 500 hours	ASTM D 4355	% retained	70	MARV
AOS	ASTM D 4751	US Sieve	80	MARV

**Notes:**

- 1 Transmissivity measured using water at 21 ± 2 °C (70 ± 4 °F) with a gradient of 0.1 and a confining pressure of 200 psf between steel plates after 15 minutes.
- 2 Condition 19Q/2.16
- 3 Geotextile and Geonet properties are prior to lamination.
- 4 Geotextile data is provided by the supplier.
- 5 MARV is statistically defined as mean minus two standard deviations and it is the value which is exceeded by 97.5% of all the test data.

Sincerely,  
**Nilay Patel**  
Nilay Patel  
QA Manager

**SKAPS Industries****Engineered Synthetic  
Products, Inc.****Product : TN220-2-8**  
**Project : Lydonville Cap Construction**

We, the Geocomposite manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile Roll Number		Ply Adhesion (lb/in)		Geocomposite Transmissivity (m <sup>2</sup> /sec)
			Top	Bottom	Minimum	Average	
1	1647001	1647001 - N	1647.005	1647.002	2.39	3.77	5.01 x 10 <sup>-4</sup>
2	1647002	1647002 - N	1647.005	1647.002			
3	1647003	1647003 - N	1647.005	1647.002			
4	1647004	1647004 - N	1647.005	1647.002			
5	1647005	1647005 - N	1647.001	1647.003			

\* Transmissivity measured using water at 21 ± 2 °C (70 ± 4 °F) with a gradient of 0.1 and a confining pressure of 200 psf between steel plates after 15 minutes.





**SKAPS Industries****Engineered Synthetic  
Products, Inc.****Product : TN220-2-8  
Project : Lydonville Cap Construction**

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

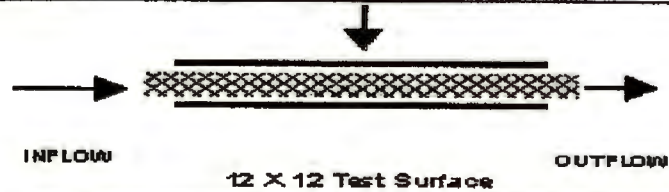
Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Mass Per Unit Area (lb/R <sup>2</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity* (m <sup>2</sup> /sec)
1647001 - N	RDIX12357	0.9552	0.186	222	2.45	71	
1647002 - N	RDIX12357	0.9552					
1647003 - N	RDIX12357	0.9552					
1647004 - N	RDIX12357	0.9552					
1647005 - N	RDIX12357	0.9552					



**SKAPS Industries****ASTM D 4716**

**Client:** Chenango Contracting, Inc.  
**Project:** Lydonville Cap Construction  
**Product:** TN220-2-8

**Job #** 1647

**Test Configuration:****Test Information:**

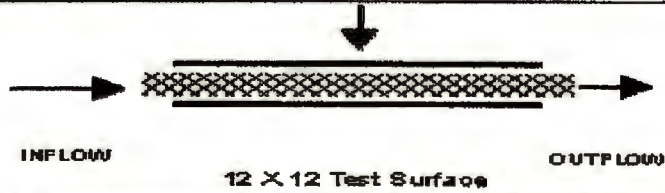
<b>Boundary Conditions:</b>	Steel Plate	<b>Normal Load:</b> 200 psf
	Geocomposite	<b>Gradient:</b> 0.10
	Steel Plate	<b>Seating Time:</b> 15 minutes
		<b>Flow Direction:</b> MD

**Test Results:**

Roll No.	Pressure (psf)	Gradient, ft	Transmissivity, m <sup>2</sup> /sec
			15 minutes
1647001	200	0.1	5.01 x 10 <sup>-4</sup>

**SKAPS Industries****ASTM D 4716**

**Client:** Chenango Contracting, Inc.  
**Project:** Lydonville Cap Construction  
**Product:** TN220-2-8

**Job #** 1647**Test Configuration:****Test Information:**

<b>Boundary Conditions:</b>	Steel Plate	<b>Normal Load:</b> 200 psf
	Geocomposite	<b>Gradient:</b> 0.10
	Steel Plate	<b>Seating Time:</b> 15 minutes
		<b>Flow Direction:</b> MD

**Test Results:**

Roll No.	Pressure (psf)	Gradient, ft	Transmissivity, m <sup>2</sup> /sec
			15 minutes
1647001	200	0.1	5.01 x 10 <sup>-4</sup>



**SKAPS Industries**

**POLYETHYLENE RESIN CERTIFICATION**

**Customer Name :** Chenango Contracting, Inc.  
**Project Name :** Lydonville Cap Construction  
**Geocomposite Manufacturer :** SKAPS Industries  
**Geocomposite Production Plant :** Commerce, GA  
**Geocomposite Brand Name :** TN220-2-8

We, the Geonet Manufacturer, hereby certify the following for the material delivered to the above referenced project:

Resin Supplier	Resin Production Plant	Resin Brand Name	Resin Lot Number	Property	Test Method	Units	Resin Supplier Value	Tested Value*
Polamer	Chevron, TX	HDPE	RDX12357	Density	ASTM D 1505	gm/cc	0.953	0.950
				Melt Flow Index	ASTM D 1238 <sup>(a)</sup>	gm/10 min	0.29	0.26

(a) Condition 190/2.16

\* Data from SKAPS Quality Control



**SKAPS Industries****Engineered Synthetic  
Products, Inc.****Product : TN220-2-8****Project : Lydonville Cap Construction**

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

<b>GEOCOMP ROLL#</b>	<b>FABRIC ROLL#</b>	<b>WEIGHT oz/sq yd</b>	<b>MD TENSILE lbs.</b>	<b>MD ELONG %</b>	<b>XMD TENSILE lbs.</b>	<b>XMD ELONG %</b>	<b>MD TRAP lbs.</b>	<b>XMD TRAP lbs.</b>	<b>PUNCTURE lbs.</b>	<b>THICKNESS mil</b>	<b>MULLEN psi</b>	<b>AOS us sieve</b>	<b>WATER- FLOW gpm/sq f</b>	<b>PERM- ITY sec<sup>-1</sup></b>
1647001	1647.005	8.73	235	64	244	74	99	104	132	121	433	80	113	1.52
	1647.002	8.85	237	69	248	80	99	104	132	125	428	80	113	1.52

571 Industrial Parkway, Commerce, GA 30529

Phone: 706-336-7000

Fax: 706-336-7007

Email: skaps@skaps.com

## FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER:  
OWNER:  
LOCATION:PROJECT TITLE:  
CONTRACTOR:

① DATE

05/26/2005

S M T W T F S

THE FOLLOWING WAS NOTED: Arrival on site @ 0800 hrs: K.S. Wahn/Golden.  
Morning - Sunny/cloudless 72-75°F 1-3mph NE wind

Activity: grading out the SE/South central/South West  
drainage area and area of old railway.

Mark Canone on Caterpillar Back hoe.

Bill Sipple assisting on foot.

Zone of exclusion set up to cordon off the drainage/  
railway area being graded. Work on south side of that  
red caution tape means upgrade to Modified D = Tyvek +  
boots.

Lunch break in activity - 12:50 - 12:35 hrs

Total water truck runs during the day: 14 times over <sup>work</sup> area.  
No visible airborne dust.

Total air-monitors/readings during the day: 24 readings.

Ranger: Up Wind; 0.000 mg/M<sup>3</sup> → 0.009 mg/M<sup>3</sup>

X wind; 0.000 mg/M<sup>3</sup> → 0.208 mg/M<sup>3</sup>

down wind; 0.000 mg/M<sup>3</sup> → 0.040 mg/M<sup>3</sup>

All were below HASP standard of 3.5 ppm

Surveyors (Dauchscherer) - (Wendel) on site - 8AM -

Find attached: air monitoring for 5/26/05 (2 pages)

SUBMITTED BY GCS

Keren S. Wahn

MONITOR



# GOLDER ASSOCIATES

DUST MONITORING DURING EXCAVATION

SHEET 1 OF 2

JOB NAME Genene/Lyndonville Dupont Site NY.  
 JOB NUMBER 053-9437-001  
 INSTRUMENT USED AND ID NUMBER personal Data RAM ←  
 CALIBRATION NUMBER MLC / (Genid cal day) 3919

BORING NUMBER (na)  
 AMBIENT TEMPERATURE 72°F  
 WIND SPEED 1-3 mph  
 WIND DIRECTION N/NW (moon)

DATE	TIME	DEPTH OF AUGERS	NOTES	INSTRUMENT READING (µg/M <sup>3</sup> , all)		
				Upwind	Downwind	Crosswind
5/26/05	0828 hrs	(na)		0.001	0.040	0.004
"	0845 hrs	(na)		0.009	0.037 <del>0.008</del>	0.008 ← 0.037
"	0905 hrs	(na)		0.005	0.030	0.208
"	0920 hrs	(na)		0.001	0.025	0.001
"	0935 hrs	(na)	(BREAK)	0.001	0.025	0.002
"	1000 hrs	(na)		0.005	0.025	0.002
"	1015 hrs	(na)		0.005	0.037	0.008
"	1030 hrs	(na)		0.000	0.018	0.010
"	1045 hrs	(na)		0.008	0.000	0.000
"	1100 hrs	(na)	More easterly wind	0.002	0.000	0.002
"	1115 hrs	(na)		0.000	0.007	0.000
"	1130 hrs	(na)		0.002	0.027	0.010
"	1145 hrs	(na)	Lunch break	0.000	0.005	0.000
"	1245 hrs	(na)		0.000	0.000	0.004
"	1259 hrs	(na)		0.000	0.001	0.001
"	1315 hrs	(na)	Jeff Salvatore - Break	0.000	0.000	0.000
"	1345 hrs	(na)		0.000	0.024	0.009
"	1400 hrs	(na)		0.000	0.010	0.002
"	1415 hr	(na)		0.000	0.027	0.007
"	1430 hr	(na)		0.000	0.001	0.017
"	1445 hr	(na)		0.001	0.023	0.025



# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

② DATE May 27, 2005 S M T W T Ⓟ S

THE FOLLOWING WAS NOTED: Arrival on Site @ 0800hrs / KS Wehn /  
Calden Associates

Morning weather: Overcast, 62°F; 1-3mph NE wind.

changes of weather noted during the day:

① Light Rain twice

② Change in wind direction; from the East.

Activities today: Excavating SW ditch behind Bowman Cold Storage

Mark - on Komatsu P-2 220LC-5 loading tree-stumps from  
ditch into Brodie + Doran trucks. 4 trucks came and were  
loaded. Loaded from 9:07AM - 10:25. and Five dust-monitor  
readings were taken during that time. (Log attached)

1040hrs - arrival of geosynthetic and off-loading for  
storage. Roll numbers were recorded. (bill attached)

1215hrs Roller arrives on site - off-loaded and Mark rolled  
out the SE corner of excavation cover. This lasted for  
20 minutes during which 2 monitoring-dust readings were  
taken.

no readings  
None were over spec of <sup>0.5</sup> ~~1.0~~ ppm.

Find attached: air monitoring sheet for 5/27/05 (one)  
Bill of lading for 8 rolls of Geosynthetic

SUBMITTED BY GCS

Karen S. Wehn

MONITOR









SKAPS INDUSTRIES NON WOVEN  
318 SOUTH HOLLAND DRIVE  
PENDERGRASS, GA 30567

TO: 99 West Ave.  
0  
Lydonville, NY

BL# P14444 PO# 1617 DATE 5/25/2005

**PACKING LIST**

GE 130-15x690						
	ROLL#	SQYRDS	ROLL#	SQYRDS	ROLL#	SQYRDS
1	300145467	1150				
2	300145468	1150				
3	300145472	1150				
4	300145473	1150				
5	300145475	1150				
6	300145487	1150				
7	300145490	1150				
8	300145492	1150				
Total SQYRDS		9,200				



# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

③ DATE

5/31/2005

S M (T) W T F S

THE FOLLOWING WAS NOTED:

On the job @ 0758 hrs. Weather = 60° (high of 75° F is expected) Sunny 1-3 mph westerly. @ 9:30 AM, T° had gone to 70° F. On job + signing HAS-Meeting: Dave Wooten (Mark Casone + Bill Sipple (Casone) and trucks from Brodie + Doran.

Activities: ① Stump removal. Mark on Komatsu. Bill assisting on foot. This went on from 8 AM to 9 AM. 4 readings were taken. The soil is moist. No visible dust. I commenced again w/ return of trucks @ 1150 hrs. I seem to make sense to dust monitor for each truck since they each take 10-15 minutes. 1150 hrs - 1243 for 2<sup>nd</sup> round. Four more readings were taken. Done for the day doing this @ 1245 hrs.

② Removal of dirt from grading the cap. - By Mark on Komatsu excavator. Soil is watered down + loaded onto Brodie truck - (Behind "Juice" Building 0930-10:30 Four readings taken. Cessation of operation = 10:30. Resuming monitoring this @ 1330 hrs. Readings:

③ Keeping ditch maintained in case of rain - Mark on Komatsu. This started @ ~ 1300 and ended @ 1320 hrs. One reading taken.

Water truck ran 7x today. 17 dust monitor readings. None were in excess of 0.5 µg/m<sup>3</sup>; I asked for water after reading # 16 to avoid visible dust. Off site @ 2:45 ~~hrs.~~ 1445 hrs.

SUBMITTED BY GCS

Karen S. Walker

MONITOR

# GOLDER ASSOCIATES

## AIR MONITORING DURING DRILLING

SHEET 1 OF       

JOB NAME Cannal Lyndonville Dupont Site, NY  
 JOB NUMBER 053-9437, 001  
 INSTRUMENT USED AND ID NUMBER Personal Data RAM  
 CALIBRATION NUMBER PDR-1000AN # 3919

BORING NUMBER AD  
 AMBIENT TEMPERATURE 60° - 75° F  
 WIND SPEED 1-3 mph  
 WIND DIRECTION Westerly

DATE	TIME	LOCATION, DEPTH OF METERS	INSTRUMENT READING				
			up	X	down		
1	5/31/05	0800	WEST Trench stump removal.	.0023	0.00	.002	
2	"	0815	"	.001	0.002	.003	
3	"	0830	"	.013	0.018	.098	
4	"	0845	"	.002	0.002	.003	
5	5/31/05	0945 hrs.	South dirt removal, S.	0.000	0.000	0.023	
6	"	1000 hrs.	"	0.000	0.001	0.009	
7	"	1015 hrs.	"	0.000	0.000	0.049	
8	"	1030 hrs.	"	0.001	0.000	0.028	
9	5/31/05	1150 hrs	West/stump removal: Round 2	0.000	0.000	0.128	Bodie 9A668
10	"	1206 hrs	"	0.118	0.068	0.000	817
11	"	1220	"	0.000	0.000	0.004	820
12	"	1235	"	0.000	0.014	0.020	9A688
13	5/31/05	1300	<u>BREAK</u> Resume @ NW ditch	0.000	0.001	0.025	
14	"	1315	"	0.000	0.000	0.000	
15	5/31/05	1330	Dirt removal behind "Juice Bling"	0.000	0.000	0.000	
16	"	1345	"	0.000	0.000	0.017-29	
17	"	1359	"	0.000	0.000	0.025-29	45° HIT w/ WATER
	X						



(COPY THIS) ~~2X~~

# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

(4) DATE June 1, 2005 S M T W T F S

THE FOLLOWING WAS NOTED: Arrival of KSWahn on site @ 0800 hrs.  
present; Mark Casson, Dave Wooten, Bill Sipple, Water truck driver

Weather 60°-82°F. Morning breeze = SW 1-2 mph. Afternoon; NE <sup>(3)</sup> 1-2 mph  
Clear, Sunny.

Activities All work was carried out in the SW trench area behind  
Bowman. Two activities were as follows;

1. Stump removal and carry away to CWM - 4 trucks in the morning between 8am + 9:00am and the same 4 "second round" between noon and 1300 hrs.
2. Stock piling of soils from the excavation (SW corner) and transport to holding area in SE corner by 1 truck in the morning and 2 trucks (transport on site only) in the afternoon.

For both activities, Mark Casson operated the Kamatsu excavator while Bill assisted on excavation level (in Modified D) area.

There were ~~24~~ 25 readings taken including a 10 minute monitor of Mark's work area w/ real time + TWA - all were below specifications of < 0.5 µg/m<sup>3</sup>, thanks to the moisture content of the soil.

There were 4 passes of the water truck in our work area before the water pipe to the pump in. The truck sprang a leak in the SW area and lost all water.

Mike Brassi and Jeff Salvatore were on site between 9am and 11:45 for a meeting.

- attached - 2 pages of air monitoring.

SUBMITTED BY GCS

Karen S. Wahn

MONITOR



# GOLDER ASSOCIATES

## AIR MONITORING DURING DRILLING

SHEET 1 OF 2

JOB NAME Cezone / Lyndenville Dupont site NY  
 JOB NUMBER 053-9437-001  
 INSTRUMENT USED AND ID NUMBER personal data RAM 3919  
 CALIBRATION NUMBER zero'd daily

BORING NUMBER SU1 Trench area  
 AMBIENT TEMPERATURE 78°F  
 WIND SPEED 1-3 mph  
 WIND DIRECTION SW

DATE	TIME	DEPTH OF AUGERS	INSTRUMENT READING			
			AT SW TRENCH	UP	X DOWN	
6-1-05	0800	Background	0.000	0.000	0.000	Corrected
"	0815	"	0.000	0.000	0.000	
"	0830	" (HIATUS)?	0.000	0.000	0.000	
"	0900	"	0.000	0.000	0.000	
"	0915	"	0.000	0.000	0.006	
"	0930	" (HIATUS)?	0.000	0.000	0.000	
"	1000	"	0.000	0.000	0.002	
"	1015	(@ STOCKPILE SE)	0.000	0.000	0.007	
"	1029	BACK TO SW TRENCH	0.000	0.012	0.034	
"	1045	"	0.000	0.000	0.000	
"	1100	"	0.000	0.000	0.080	we need water
"	1115	"	0.000	0.000	0.028	"
"	1130	"	0.000	0.012	0.048	
"	1215	Stamp removal SW Trench	0.000	0.000	0.040	
"	<del>1225</del> 1230	" HIATUS?	0.000	0.023	0.064	
"	1300 hrs	SW Trench loading	0.056	0.017	0.141	
"	1315	"	0.026	0.005	0.017	
"	1330	"	0.000	0.017	0.093	
"	1345	"	0.000	0.010	0.085	
"	1400	"	0.000	0.043	0.045	
"	1415	"	0.000	0.075	0.115	

(see NOTEBOOK)



# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

⑤ DATE June 2, 2005 S M T W  F S

THE FOLLOWING WAS NOTED: Karen S. Wehm arrived on site @ 0800 hrs

WEATHER: Sunny, Cloudless, 69°F → 85°F. Still in morning  
11-3mph wind (SW then Northwly) developed after  
Late morning.

Visitor: Bob Long, NYSDEC came on site @ 0925. He was happy  
with the dust monitoring, but had an issue with the  
railroad ties and the fact that they were not stock piled  
on poly.

Activities ① Four trucks took stumps from the ditch to CWM  
that Mark removed from the ditch using the excavator  
(P-6-220LC-5) - Four trucks in the morning between 8 and 9  
and a return for second load between 12 and 1300 hrs.

② Ditch work - clearing the ditch to grade @  
morning - taking out dirt (stock piled at SE corner)  
and railroad ties (stock piled at SW corner, just  
above ditch on road.

③ DEC issue addressed and solved: a. Railroad ties  
were removed from NW area + stock piled at SW - covered w/ plastic.  
b. 6" of soil was removed where railroad ties were formerly  
kept and taken to NECCO park. a. caution tape was put up  
on the North side of the entire excavation.

There were 6 runnings of the water truck - no visible dust.  
Twenty five dust monitor readings were taken.  
2 sheets of dust monitor readings attached.

SUBMITTED BY GCS

Karen S. Wehm

MONITOR



# GOLDER ASSOCIATES

## AIR MONITORING DURING DRILLING

SHEET 1 OF 2

JOB NAME Carone / Lyndonville Dupont site  
 JOB NUMBER 053-9437-001  
 INSTRUMENT USED AND ID NUMBER Personal Data Ram  
 CALIBRATION NUMBER 2919

BORING NUMBER SW excavation  
 AMBIENT TEMPERATURE 80°  
 WIND SPEED 0-2 mph  
 WIND DIRECTION East to West

DATE	TIME	DEPTH OF AUGERS	INSTRUMENT READING		
			North	East	West
6-2-05		(no wind)			
"	0810		0.177	0.049	0.016
"	0825		0.060	0.075	0.000
"	0830		0.000	0.000	0.000
"	0839		0.000	0.002	0.000
"	0850		0.000	0.000	0.000
"	0930		0.000	0.034	0.213
"	0945		WIND FROM EAST DEVELOPED: up 0.018 X 0.007 down 0.078		
"	1000		0.000	0.012	0.002
"	1015		0.164	0.079	0.002
"	1030	HIATUS	0.000	0.000	0.000
"	1100		0.000	0.007	0.032
"	1115		0.000	0.057	0.068
"	1130		0.000	0.000	0.039
"	1145-1200	in exc. cab.	0.000 - 0.417 TWA = .141		
6/2	1215		0.000	0.000	0.011
"	1230		0.000	0.012	0.046
"	1245		0.000	0.000	0.028
"	1259		0.000	0.002	0.489
"	1315		SW corner - zone of exclusion SE 0.000 0.007 0.080		
"	1330		0.007	0.011	0.023

exc. Truck cab

@ central ditch - just from Road.



# FIELD MONITORING REPORT

26,27  
31,01,02,03

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

⑥ DATE June 3, 2005 S M T W T Ⓟ S

THE FOLLOWING WAS NOTED: Karen S. Wehn arrival on Site at 0800.

WEATHER: Early: Bright overcast. 68°F, still. 10AM - Sunny w/ some cloud cover. 75°F SWesterly 2-3mph wind.

ACTIVITIES: 4 trucks in the morning between 8am - ~~to~~ 9<sup>am</sup> for stump removal behind Dobbins (mid-ditch). Mark removed them using PC-220LC-5. The same four trucks were back on site at 1230 for the second set of loads of stumps. From 1245 hrs. to 1315 hrs. That is the summary for stump removal today.

Continuing ditch clearing of soils to grade behind Bourman's parking & crate-staging lot. 200 ~~feet~~ (feet) have been cleared. Soils are stockpiled on site in the SE corner and were covered at the end of the day. Again; Mark Cramer on the PC-220LC-5.

We worked from 8am until 4pm (1600hrs) and when we left site caution tape was up to mark off the ditch area and all piles (2 in SE) were covered w/ Plastic sheeting.

The water truck ran a total of 8 times and covered all work areas. Attached is 1 monitoring form for the days air/dust monitoring.

SUBMITTED BY GCS

Karen S. Wehn

MONITOR



# GOLDER ASSOCIATES

AIR MONITORING DURING ~~DRILLING~~  
DUST EXCAVATION

SHEET 1 OF 1

JOB NAME Carson/Lyndenville  
 JOB NUMBER 053-9437-001  
 INSTRUMENT USED AND ID NUMBER personal data ram  
 CALIBRATION NUMBER 3919

BORING NUMBER 200' west of W  
 AMBIENT TEMPERATURE 82°F  
 WIND SPEED 1-3 mph  
 WIND DIRECTION Northwesterly  
Southeasterly SW

DATE	TIME	DEPTH OF ANGERS LOCATION	INSTRUMENT READING		
6-3-05	0810-0840	work area of Mask-Cab.	0.022 → TWA = 0.059		
"	0900	200 Ft. SW- From W.	0.000	0.000	0.043
"	0915		0.000	0.011	0.019
"	0930	HIATUS 1	0.000	0.000	0.021
"	1000		0.003	0.017	0.058
"	1015		0.007	0.012	0.079
"	1030	HIATUS 1	0.000	0.004	0.022
"	1100		0.000	0.000	0.007
"	1115		0.000	0.023	0.047
"	1130		0.000	0.007	0.022
"	1145	STOPPED @ NOON	0.000	0.000	0.021
"	1245		0.000	0.027	0.048
"	1300		0.000	0.018	0.044
"	1316		0.002	0.008	0.039
"	1331	-HIATUS-	0.000	0.044	0.172
"	1400	SW-Central Exc.	0.000	0.003	0.008
"	1430		0.004	0.010	0.018
"	1445		0.000	0.004	0.015
"	1500	Hiatus.	0.000	0.000	0.017
"	15:30		0.000	0.000	0.000
"	15:45		0.000	0.000	0.000

→ need water call

# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

⑦ DATE June 6, 2008 S  M  T  W  T  F  S

THE FOLLOWING WAS NOTED: KS with onsite @ 800hrs. Sunny, hot.

(85°) humid; winds out of SW gusting up to 25 MPH.

Onsite: Mark Conroe, Bill Sipple. (Mark on PC-220LC-5)

Water Truck -

2<sup>nd</sup> Laborer.

ACTIVITIES ① Removal of stumps (by Mark). Loaded into trucks and removed from site. Delivery of clean clay for placement in the ditch. Same trucks brought clay and then were used for stump removal.

② Clean-up + grading of excavation in the south-central (= 500' dept of west boundary) - ties stumps are placed on plastic, stockpiled + covered.

③ Dave Wooten has sampled (8 jars) of the railroad ties so they'll know where those will have to be land-filled.

④ Loading of stockpiled (in SE) soils onto the 4 returning trucks. These soils are originally from the excavation and will be heading to NERO park.

⑤ Continued ditch cleaning and elevating to grade. Mark on excavator and truck 106 staying locally - on site.

Visitor - Rob King. No issues with the site today (NYSDEC).

Water Truck - 8 runnings -

Monitor Readings - # 26 readings (These are attached)

SUBMITTED BY GCS

Karen S. Wehn

MONITOR



# GOLDER ASSOCIATES

~~AIR~~ MONITORING DURING ~~SPILLING~~  
DUST EXCAVATION

①

SHEET 1 OF 2

JOB NAME Canonil Lyndonville - Dupont  
 JOB NUMBER 053-9437-001  
 INSTRUMENT USED AND ID NUMBER S Personal Data  
 CALIBRATION NUMBER RAM/3919

BORING NUMBER excavation ctr.  
 AMBIENT TEMPERATURE 85°  
 WIND SPEED 3-9-10 mphr Gusts = 25m/hr.  
 WIND DIRECTION variable

DATE	TIME	DEPTH OF ALGERS	INSTRUMENT READING		
			up	X	down
6-6-05	0830 hrs		0.000	0.014	0.123
"	0845		0.000	0.000	0.275
"	0900		0.000	0.021	0.101
"	0915		0.000	0.000	0.098
"	0930		0.000	0.037	0.187
"	0945		0.000	0.000	0.000
"	1000	FINISHED w/ STUMP Rem.	0.010	0.075	0.278
"	1015	CENTRAL TRENCH SECOND EXC.	0.048	0.131	0.120
"	1030	↓	0.035	0.109	0.117
"	1045		0.000	0.045	0.052
"	1100		0.001	0.017	0.034
"	1115		0.000	0.020	0.044
"	1130		"	0.000	0.041
"	1145	HIATUS 1	0.000	0.000	0.028
6-6-05	1245		0.000	0.075	0.192
"	1300	AT STOCKPILE = SE Corner	0.000	0.048	0.087
"	1315	truck 817	0.012	0.052	0.161
"	1330	truck 818	0.010	0.037	0.034
"	1345		0.000	0.148	0.275
"	1400	moving back to central	0.017	0.024	0.061
"	1415	500' from W.	0.019	0.029	0.045

water call.

soil is very moist

(Lots of wind)

(21)





# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

⑧ DATE

June 7, 2005

S M  W T F S

THE FOLLOWING WAS NOTED:

*Rain Wehr arrived on site @ 8:30 hrs*  
Weather: *Sunny / cloudless / hot (67-88°F) with a 3-25 mph wind (more still in the morning - gusts in afternoon).*

*Activity ① at the 1' cut South of south excavation = east of Monroe electronic and South of Bowman. We had started cleaning this area yesterday afternoon. Mark Caonic on Komatsu (PC-220LC-5). Breaking up concrete using a hammer w/ the crane. Debris is being loaded and taken to the stockpile in the SE corner, south of job office. Debris consists of < 2' on any side pieces of concrete, branches + roots, soils, all debris is covered @ dump end. Truck is decontaminated each time it comes away from the SE soil stock pile. One truck was used to take sediment + debris to the stockpile. Load was taken from the 1' cut south of S. excavation to the stockpile about 1x every 15 minutes. Ended @ 1430 hrs.*

*Activity ② Central ditch, about 525' E. of W. Cleaning out debris - placing it to stockpile. Last truck load was lined + sent to landfill. No problems.*

*8 passes  
Water truck passes utilized today; ~~7~~ passes.  
Dust monitor readings today: — 25 readings  
Soils were damp and cohesive.*

SUBMITTED BY GCS

*Rain S. Wehr*

MONITOR



# GOLDER ASSOCIATES

## AIR MONITORING DURING DRILLING

TWA .020

SHEET 1 OF 2

JOB NAME Casone / Lyndonville, Dupont  
 JOB NUMBER 053-9437-001  
 INSTRUMENT USED AND ID NUMBER personal Data  
 CALIBRATION NUMBER RAM

BORING NUMBER 1' S of S ditch  
 AMBIENT TEMPERATURE 82°  
 WIND SPEED 3-9 mph S/Westerly  
 WIND DIRECTION S/Westerly ←

DATE	TIME	DEPTH OF AUGERS	INSTRUMENT READING		
		1' cut S of S ditch, (up) (X) (down)			
6-7-05	0830	concrete tank holder area	0.000	0.000	0.022
"	0840 45		0.008	0.000	0.008
"	0900		0.000	0.000	0.010
"	0915 hrs		0.000	0.003	0.060
"	0930		0.040	0.047	0.096
"	0945		0.000	0.011	0.016
"	1000		0.009	0.020	0.041
"	1015	concrete break-up	(W) 0.000	(N) 0.020	NE/E 0.029
"	1030	DEBRIS LOADING	0.000	0.000	<del>0.034</del> 0.034
"	1045		0.012	0.062	0.127
"	1100		0.015	0.015	0.072
"	1115		0.010	0.145	0.278
"	1130		0.062	0.062	0.031
"	1145	Break for lunch HIDTIS 7	0.000	0.020	0.028
"	1300 hrs		0.051	0.006	0.184
"	1315 hrs		0.045	0.091	0.221
"	1330		0.014	0.051	0.103
"	1345		0.000	0.102	0.188
"	1400		<del>0.000</del> 0.037	0.062	0.060
"	1415		0.039	0.081	0.093
"	1430		0.041	0.114	0.259

→ wind - need water  
 ← wind is picking up

→ Wind gusting to ~23 mph

→ Gusting winds  
 ... dust





- Five to Mike -

This has been copied -  
(original)

# FIELD MONITORING REPORT

Mike ✓  
Site ✓

PAGE 1 OF 1

PROJECT NUMBER: 053-9437  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

9 DATE 06-08-2005 S M T T F S

THE FOLLOWING WAS NOTED: Karen S. Wehn on site - also on site; Mark  
Cenone, Dave Wooten, Mark Salvator, Bill Sipple and Bill  
Jeff Salvator was on site most of the day.

Weather - Sunny, Hot 82-88°F. Still to 3-10 MPH S. Westlies.

Activity (Com) ① Mark Cenone on Excavator PC-2 is  
working @ SE soil (from excavation) stockpile. He is placing  
it in trucks and they are taking soils to NECCO Park. These  
trucks are lined by Bill & Bill before they are loaded w/ soils.

Trucks in:	821 Brodies (2 Loads)	12 trucks w/ 2 loads of
	818 " (2 Loads)	soils each is 24 loads
	106 Doran (2 Loads)	hauled off today.
	006 Oneida (2 Loads)	
	33 Walck (2 Loads)	Activity # ② Excavation
	34 Walck (2 Loads)	cleaning and grading
	19 Walck (2 Loads)	of S-central excavation
	43 Mallon (2 Loads)	adjacent to/between
	42 Mallon (2 Loads)	dobbins' loading docks to
	"BTS" (2 Loads)	the North.
	105 Doran (2 Loads)	
	104 Doran (2 Loads)	STOCKPILED OR CARRIED TO NECCO.

Total of 31 dust monitor readings were taken today.  
The soil was always moist - no visible dust and there were  
no readings that were sustained above 0.500 µg/m³

SUBMITTED BY GCS  
Karen S. Wehn  
MONITOR



# GOLDER ASSOCIATES

(2)

AIR MONITORING DURING ~~DRILLING~~  
*DUST* *EXCAVATING*

SHEET 1 OF 2

JOB NAME Croone / Lyndonville - Dupont NY  
 JOB NUMBER 053-9437-001  
 INSTRUMENT USED AND ID NUMBER Personal Data Ram  
 CALIBRATION NUMBER 3919

BORING NUMBER stock pile SW  
 AMBIENT TEMPERATURE 85°  
 WIND SPEED 1-19 mph  
 WIND DIRECTION SW

DATE	TIME	STOCKPILE DEPTH OF METERS	INSTRUMENT READING		
			up	X	down
6/8/05	0900	Truck 821	0.000	0.000	0.471
"	0915 (9:15)	" 818	0.000	0.000	0.000
"	0920	" 106	0.000	0.000	0.000
"	0928	" 006	0.000	0.000	0.000
"	0943	" 33	0.000	0.000	0.279
"	0951	" 34	0.000	0.000	0.309
"	0956	" 19	0.000	0.111	0.217
"	1013	" 43	0.000	0.012	0.287
"	1022	" 42	0.000	0.000	0.000
"	1030	BTS 8A-	0.000	0.000	0.000
"	1104	Truck 105	0.000	0.000	0.000
"	1150	South Central EXCAVATION	0.000	0.000	0.029
"	1245	TRUCK 821	0.000	0.000	0.000
"	1252	Truck 818	0.000	0.000	0.000
"	1259	Truck 106	<del>2</del> no reading		
"	1303	" 006	0.000	0.015	0.124
"	1308	" 104	0.000	0.000	0.055
"	1312	" 33	0.477	0.099	0.094
"	1318	" 34	0.000	0.000	0.064
"	1345	" 42	0.000	0.016	0.098
"	1352	" 19	0.063	0.078	0.177

Notebook pg 31.

Notebook pg 32

HUMUS

Notebook pg 33





# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER: 053-9437  
OWNER: DuPont  
LOCATION: Lyndenville

PROJECT TITLE:  
CONTRACTOR:

(10) DATE 06-09-2003 S M T W  F S

THE FOLLOWING WAS NOTED: Arrival on site K.S. Wehn = 0800

Weather - bright overcast, day, 70°-88°F range through-out  
the day. Wind: Morning was still. 1-3 mph/SW later.

Activity ① Mark Casone (on PC-220LC-5 excavator) is  
loading soils from the stockpile onto lined trucks. Soil  
is from all areas being remediated; South 1' cut near  
Monroe, the ditch. 14 loads went to NECCO park  
in the morning and 14 dust monitor readings  
were taken. All readings for dust were below 0.5 µg/  
M<sup>3</sup>, the smallest reading we are allowed. We also  
had 4 more trucks filled and removed at noon to  
1 o'clock, making the total truck loads out = 18.

Activity ② When not filling trucks from the stock pile,  
Mark used the excavator to remove soils from the  
ditch behind Dobbins (moving from west to east) -  
one truck was assigned to take materials from  
that area to the stock pile. During this activity,  
1 dozen readings were taken during this activity  
and all were below the minimum specification  
of .5 µg/M<sup>3</sup>.

Attached: 2 pages of dust Monitoring for 06/09/03.  
off-site @ ~~1640~~ hrs

SUBMITTED BY GCS

Karen S. Wehn.

MONITOR



# GOLDER ASSOCIATES

(2)

AIR MONITORING DURING ~~DRILLING~~  
DUST EXCAVATION

Original - has  
been copied by  
Mike ✓  
Office (Field) ✓  
KSW ✓

SHEET 1 OF 1

JOB NAME Cinema - Lyndonville Dupont NY  
 JOB NUMBER 053-9457.001  
 INSTRUMENT USED AND ID NUMBER Personal Data  
 CALIBRATION NUMBER 3919

BORING NUMBER STOCKPILE  
 AMBIENT TEMPERATURE 85°F  
 WIND SPEED Mean: still - 1.3 mph  
 WIND DIRECTION SW?

DATE	TIME	Removal of <u>SE</u> STOCKPILE	INSTRUMENT READING		
			N	E	W
6-9-05	0845	Doran 106	0.000	0.000	0.000
"	0850	Brodies 818	0.000	0.000	0.000
	0855	" 821	0.000	0.000	0.382
	0902	" 817	0.000	0.017	0.000
	0910	Oneida 006	0.020	0.000	0.000
	0916	" 004	0.000	0.000	0.000
	0923	Doran 105	0.024	0.001	0.018
	0928	Walck 33	0.000	0.000	0.000
	0937	Mallara 42	0.000	0.000	0.000
	0941		0.000	0.000	0.000
	0954	Mallan 39	Up 0.018	X 0.021	Down 0.118
	1001013	BTS	0.000	0.025	0.000
	1115	-HIATUS- Ditch	0.000	0.017	0.028
	1233	Dorans 106	0.000	0.000	0.000
	1234 1245	Brodies 820	0.000	0.004	0.042
	1320		0.000	0.062	0.299
	1335		0.000	0.005	0.125
	1350		0.000	0.000	0.251
	1410	-HIATUS-	0.000	0.418	0.497
	1425		0.000	0.024	0.057
	1440		0.021	0.035	0.450

12:30  
12:45  
1:15

see  
Book





# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER: 053-9437  
OWNER: Dupont  
LOCATION: Lyndonville

PROJECT TITLE:  
CONTRACTOR:

(11) DATE

6/10/05

S M T W T F S

THE FOLLOWING WAS NOTED:

ARRIVED @ 08<sup>00</sup>

Weather: H. Swary, humid  
Mid 80's, light wind

Cerrone: 1 Oper, 2 lab, 1 water truck

- Ditch had a little ponded water from the heavy rains overnight. Walked the site, and all erosion control features seem to be in proper working condition.

- MCI found effluents on ditch excavation from the 24" culvert inlet to the area that was previously excavated. Current ditch excavation is complete with the exception of some clean up work. The ditch work was done about 11<sup>00</sup>.

- MCI hauled one load of contaminated soil to New Park at 12:10

- GAT performed dust monitoring with the workers zone & readings were found to range from 0.000 to 0.065 which is well below the 0.5 mg/m<sup>3</sup> requirement. Due to rains last night, site was very moist therefore no dust present.

- Forward copy of medical records to D. Wooten

- D. Wooten looking through the GC cuts and I will put official memo to Jeff requesting approval.

SUBMITTED BY GCS

Michael Swary

MONITOR





# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER: 053-9437-  
OWNER: DuPont  
LOCATION: Lyndonville

PROJECT TITLE:  
CONTRACTOR:

(12)

DATE

06-13-2005

S  T W T F S

THE FOLLOWING WAS NOTED:

Arrived on site @ 0755 Weather - Sunny  
90-98° humidity, very still - "wind" developed in the  
afternoon 1-3 mph. Day.

Activity #1. Mark Casone on Komatsu PC-220LC-4  
loading potentially contaminated sediment (stockpiled)  
into trucks which transport sediment to Necco Park.  
Each truck was filled before filling.

Truck total - Seven loads removed from site.

Reading (Dust monitor) Total = 12 readings

For this activity, all were below the ~~lower~~ "high"  
limit of  $0.5 \mu\text{g}/\text{M}^3$ .

Activity #2 Excavation of parking lot between the  
juice building and the ditch to the south. Mark  
used the PC-220LC-5 to excavate material around  
outflows and other subsurface plumbing + fixtures.  
About 1' below top, rail-road rails were discovered. These  
will mark grade because it is a 1' cut. After fixed  
features/pipes were excavated around, MCI used  
a CAT (3951) Front end loader/dozer to excavate the  
rest of the 1' cut.

All readings taken during this activity were  
below the limit of  $0.5 \mu\text{g}/\text{M}^3$ .

Attached is the data sheet for 6/13/05 dust  
monitoring.

Off-site @ 1611 hrs.

SUBMITTED BY GCS

Karen S. Weber

MONITOR

# GOLDER ASSOCIATES

DUST MONITORING DURING ~~BRICKLAYING~~ EXCAVATION

SHEET 1 OF 2

JOB NAME Peconic / Lyndonville - Dupont, NY  
 JOB NUMBER 053-9437  
 INSTRUMENT USED AND ID NUMBER Personal Data RAM  
 CALIBRATION NUMBER 3919 - zero'd in Trailer @ 8:15 AM

BORING NUMBER STOCKPILE  
 AMBIENT TEMPERATURE 75° - 89°F  
 WIND SPEED STILL TO 1-2 mph  
 WIND DIRECTION SW

DATE	TIME	DEPTH OF AUGERS Location	INSTRUMENT READING		
			North	East	West
6/13	0833	STOCKPILE	0.012	0.028	0.034
	0840	"	0.004	0.000	0.000
	0900	"	0.000	0.000	0.000
	0915	excavating be- hind Juice Build.	0.012	0.007	0.000
	0930		0.024	0.086	0.000
	0945	-HIRTUS-	0.000	<del>0.014</del> 0.029	0.000
	1030		0.000	0.000	0.000
	1045		0.000	0.012	0.000
	1100		0.012	0.000	0.000
	1115		0.000	0.000	0.027
	1130	EXCAVATION - TRUCKS -	0.029 0.037	0.041 0.000	0.017 0.018
	1150	"	0.030	0.027	0.018
	1230	parking lot behind J. build.	0.032	0.023	0.014
	1247		0.018	0.023	0.000
	1300		0.022	0.047	0.017
	1315		0.014	0.024	0.008
	1330		0.001	0.000	0.011
	1345		0.000	0.003	0.000
	1400		0.000	0.000	0.000
✓	1415		0.003	0.000	0.001
6/13	1430	✓	0.000	0.017	0.090







# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER: 053-9437

PROJECT TITLE:

OWNER: DuPont

CONTRACTOR:

LOCATION: Lyndonville

13

DATE

06-14-2005

S M  W T F S

THE FOLLOWING WAS NOTED: Arrival on Site / K900 / 0800 hrs

Weather: 73° - 85° F; Sunny to overcast - variable throughout the day. Wind: a 10-25 mph Westerly in the morning. Everything is wetted down due to last night's storm.

Activity #1 - MCI loading trucks from stockpile (Mark, using PC-220LC-5) # of trucks going to NECCO PARK with potential arsenic content in soil = 13 Total.

Six in Morning, seven after or around noon

#34 left @ 1234.

Activity #2 - MCI grading out the parking lot area that was excavated yesterday. (Mark, using CAT 3951 dozer) excess soils are pushed or delivered to the stockpile. After the stock pile was removed, that area was graded out.

Visitor NYDEC Bob Long in @ 1250; out @ 1340 hrs

He had no comments or issues - The site seems to be in good shape.

Both laborers were gone by 1455 hrs.

Readings = 21 total (see attached sheet.)

SUBMITTED BY GCS

Kenneth S. Wilbur

LABORATOR

# GOLDER ASSOCIATES

DUST MONITORING DURING EXCAVATION

SHEET 1 OF       

JOB NAME Cenozo - Dupont Lyndonville, NY  
 JOB NUMBER 053-9437  
 INSTRUMENT USED AND ID NUMBER Personal Data RAM  
 CALIBRATION NUMBER 8919

BORING NUMBER STOCKPILE + Behind juice bldg.  
 AMBIENT TEMPERATURE 85°  
 WIND SPEED 10-20 mph  
 WIND DIRECTION Westerly (SW)  
(West to EAST)

DATE	TIME	DEPTH OF AUGERS	INSTRUMENT READING		
			Up	X	down
6/14/05	0820	Stockpile - TRUCK-LOAD	0.000	0.004	0.010
	0840	"	0.012	0.014	0.031
	0856	"	0.000	<del>0.012</del> <del>0.044</del>	0.041
	0912	"	0.013	0.011	0.061
	0930	Area Behind the Juice Bldg.	0.005	0.000	0.023
	0945	1000 hrs = HIATUS 7	0.000	0.012	0.031
	1045	Between juice Building + STOCKPILE	0.000	0.000	0.024
	1100	"	0.000	0.000	0.027
	1115	"	0.000	0.000	0.016
	1130	"	0.000	0.000	0.005
	1145	STOCKPILE Truck 821	0.015	0.024	0.046
	1200	Truck #33	0.000	0.000	0.030
	1215	Truck 006	0.000	0.000	0.023
	1230	Truck 45	0.002	0.028	0.095
	1315	HIATUS	0.000	0.002	0.000
	1330		0.000	0.004	0.012
	1345	HIATUS 7	0.000	0.000	0.000
	1415		0.001	0.014	0.022
	1430		0.000	0.000	0.000
	1445		0.000	0.000	0.000
✓	1500	grading	0.000	0.000	0.000



copies are already  
made + filed.

# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:



DATE

June 15, 2005

S M T  T F S

THE FOLLOWING WAS NOTED:

Arrival on site 0800

Onsite also = MCI = Mark, Mark, Bill, Bill, 2 more (6 total)  
= Dupont; URS Dave Wooten + 2 more

Weather = good Thunder storm last night. Everything is damp  
70° 3-15mph South Westerly. Partly cloudy w/ dark  
clouds moving through to the ~~SE~~ NE. →

Activity #1 Mark is on the PG-220LC-5 removing 1'  
sediment from West of the juice building and East to NE of  
the juice building. MCI has an operator on the CAT /dozer working  
with Mark to grade out sediment. Soils are in the N-Cen-  
tral parking area. This is being done w/ drainage in mind.  
The entire day was spent cutting out the upper (approx)  
foot of sediment from the area West/NW of the juice  
building and the East side of Dobbins. Soils from there  
were either stock piled (and covered) at the Eastern  
border of the site or graded out at the North east.

All readings of dust were well below  $0.5 \mu\text{g}/\text{M}^3$   
due to dampness + storms the night before

Visitors: Auditors from Dupont / URS - No issues

Matt Forucci of NYSDOH - no issues.

Attached - 1 sheet of dust monitoring data. 21 readings  
Off site @ 1600

SUBMITTED BY GCS

Karen S. Wehn

MONITOR



# GOLDER ASSOCIATES

## AIR MONITORING DURING DRILLING

SHEET 1 OF 2

JOB NAME Amone - DuPont Lyndonville, NY  
 JOB NUMBER 053 - 9437  
 INSTRUMENT USED AND ID NUMBER Personal Data  
 CALIBRATION NUMBER 3919

~~BORING NUMBER~~ West / N of Juice Bld.  
 AMBIENT TEMPERATURE 70°  
 WIND SPEED 2-15 mph  
 WIND DIRECTION SWesterly

DATE	TIME	DEPTH OF AUGERS	INSTRUMENT READING		
			Up	<del>Down</del> X	Down
6-15	0815		0.000	0.000	0.019
	0830		0.000	0.004	0.051
	0845		0.000	0.003	0.000
	0900		0.014	0.005	0.022
	0915		0.012	0.000	0.007
6-15	0920-1020	Real time in Mark's Cab.	HGHT = 0.378 (exhaust?) TWA = 0.055 µg/m <sup>3</sup>		
	10:30hrs	SE corner w/ CAT grading	0.011	0.023	0.037
	10:45hrs.	"	0.002	0.017	0.014
	11:00		0.002	0.000	0.020
	11:15		0.002	0.001	0.000
6-15	1130	LUNCH BREAK 2	0.017	0.034	0.452
	1245	NEW of juice BUILDING	0.000	0.007	0.018
	1300		0.010	0.002	0.000
	1315		0.011	0.031	0.043
	1330		0.002	0.000	0.057
	1345		0.031	0.012	0.013
	1400		0.008	0.028	0.059
	1415		0.005	0.007	0.169
	1430		0.011	0.023	0.111
	1445		0.001	0.015	0.059
	1500	"	0.001	0.010	0.021

Everything is damp due to storm.

EXHAUST no vis. dust

# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:



DATE

06-16-05

S M T W  F S

THE FOLLOWING WAS NOTED:

Karen S. Uebn arrived on site @ 0830AM  
Drove through a driving rain and there was rain (hard at  
times) at site throughout <sup>all</sup> most of the day. 65°F. Still  
(no wind) light SW Breeze.

Activity 1: removal of excess soils from a new stock pile -  
These were removed from North + west of the juice build-  
ing. There were five trucks in the morning and one (sixth)  
remained on site to stock pile soil locally. In the afternoon,  
five more loads of soils were removed and Darran 104  
was on site to remove soils to a stock pile this afternoon

Activity 2. Removing acid for grading the parking lot north  
of the juice building. Mark is on PC-220LC-5, removing soils  
to Darran truck (On-site) and MCI operator is on the  
cat doing grading in adjacent area. MCI is excavating NE  
toe area.

The on site truck was plastic-sheeting lined for a  
final load to be taken from the soil stockpile to  
NECCO park @ 1300 hrs.

Twenty five readings were taken to monitor dust  
and all were well below the lowest allowed limit of  
 $< 0.5 \mu\text{g}/\text{M}^3$ . Soils were damp to wet. Erosion con-  
troll is working well + all is in place.

Two soil dust monitoring sheets are attached.

SUBMITTED BY GCS

Karen S. Uebn

MONITOR



# GOLDER ASSOCIATES

## AIR MONITORING DURING DRILLING

SHEET 1 OF \_\_\_\_\_

JOB NAME Canon-Lyndonville, DUPONT  
 JOB NUMBER 053-9437-  
 INSTRUMENT USED AND ID NUMBER Personal Data RAM  
 CALIBRATION NUMBER 2010'd @ Field office

BORING NUMBER N of Juice Bldg  
 AMBIENT TEMPERATURE 65°F  
 WIND SPEED 1-5 mph NW  
 WIND DIRECTION N-Westerly

DATE	TIME	DEPTH OF AUGERS RAIN!	INSTRUMENT READING		
			Up	X	down
6/16/05	0845		0.007	0.009	0.029
"	0900	1	0.000	0.000	0.003
"	0915		0.001	0.000	0.009
"	0930		0.020	0.015	0.024
"	0945		0.000	0.015	0.007
"	1000	(HIATUS)	0.000	0.007	0.018
"	1030		0.012	0.011	0.010
"	1045		0.012	0.009	0.023
"	1100		0.000	0.000	0.000
"	1115		0.009	0.000	0.000
"	1130		0.010	0.005	0.010
"	1145	Lunch - Hiatus	0.000	0.000	0.000
"	1230		0.000	0.004	0.011
"	1245		0.007	0.007	0.023
"	1300		0.000	0.000	0.031
"	1315		0.000	0.018 <del>0.000</del>	0.056
"	1330		0.000	0.000	0.064
"	1345		0.000	0.007	0.072
"	1400	@ North East Tice area	0.000	0.000	0.003
"	1415		0.000	0.009	0.010
"	1430		0.001	0.010	0.032

M-45  
B-829

← 0.000  
0.000





# FIELD MONITORING REPORT

PAGE 1 OF       

PROJECT NUMBER: 053-9437  
OWNER: Dupont  
LOCATION: Lyndonville

PROJECT TITLE:  
CONTRACTOR:

(16) DATE

6-17-2005

S M T W T ● S

THE FOLLOWING WAS NOTED: Arrived onsite @ 0800 (0750 hrs)

Weather 60°F 1-3 mph N-Westerly. Thick overcast. Wet from yesterday + last night.

Onsite: Chemung (4) MCI (6) Dave Wooten + Myself.

Activity # 1. Removal of stockpiled rail road ties. Mark on Hitachi EX-200LC loading into 4 trucks to be taken to high Area.

Activity # 2 Grading out soils (sub grade) in East/N-East toe Done from 0810 - 9:00am

Activity # 3 Removal of 3 truckloads of stockpiled soils to NECCO Park after lunch. Stockpile is 50% gone.

Activity # 4 : Type 3 Cap : South and SE of juice building. Sub grade was rolled out by Jeff + Mark on Roller. Felted geosynthetic was laid down (I inspected five seam seams). Approximately  $\approx 2025 \text{ yd}^2$  was deployed today and gravel was placed on top of the geo-cloth.

I left @ 1500hrs because all they were doing was stock piling gravel. We'll need a measuring wheel next week.

attached: 3 readings for Morning working @ the toe NE corner.

SUBMITTED BY GCS

Karen S. Weber

MONITOR





# FIELD MONITORING REPORT

PAGE 1 OF       

PROJECT NUMBER: 053-9437  
OWNER: Dupont  
LOCATION: Lyndonville

PROJECT TITLE:  
CONTRACTOR:

DAY (17) DATE

06-20-2005

S  T W T F S

THE FOLLOWING WAS NOTED: Golden - Mike Bracci onsite 7:30 - NOON  
K.S. Wehn on site = Noon -

Weather: Sunny, HOT, ~~W~~ SWesterly Breeze 1-6 mph, Cumulus Clouds

MCI - 2 operators 3 laborers Wendel-Duchscherer - Brian.

Activity 1 Mark Curone on PL-220LC-5 - loading trucks w/ stockpiled soils from the site. The trucks came in w/ stone (11 loads in the morning) After dumping the stone SE of juice building, they were each lined w/ plastic, loaded with stockpiled soils, plus tarped, fire disconnected then took the soils to NECCO park. (11 loads of soil to NECCO park) in morning. In afternoon there was one more load of stone. Total = 12 loads of stone IN; 11 trucks of soils out.

Activity 2 Mark (on PL-220LC-5) cut out 1' of soil from NE corner. Some of these soils were used to grade area N+NE of juice building. + other (excess) were taken to NECCO park via truck. This area was graded, rolled by MCI.

Wendel-Duchscherer - surveying grade N- of Juice bldg.

All offsite @ 1600 - all subgrade is rolled out and we are finished with excavation.

SUBMITTED BY GCS

Karen S. Wehn

MONITOR

# GOLDER ASSOCIATES

## DUST MONITORING DURING EXCAVATION

SHEET 1 OF       

JOB NAME Cassone - Dupont Lyndonville, NY  
 JOB NUMBER 053-9437  
 INSTRUMENT USED AND ID NUMBER Personal Data RAM  
 CALIBRATION NUMBER zero'd in Field office. 3919

AREA East parking Lot  
 BORING NUMBER         
 AMBIENT TEMPERATURE 85°  
 WIND SPEED 1-6 mph  
 WIND DIRECTION SW

DATE	TIME	AREA	INSTRUMENT READING		
			UP	X	Down
June 20th	0825	all-SE, E-CENTRAL, NE CORNER	0.000	0.002	0.003
	0855		0.000	0.000	0.000
	0915		0.000	0.000	0.000
	0930		0.012	0.035	0.067
	0950		0.008	0.007	0.013
	1025		0.000	0.006	0.001
	1049		0.025	0.003	0.024
	1130		0.012	0.027	0.085
	1145		0.021	0.063	0.097
	1245	-HILLS-	0.007	0.022	0.024
	1300		0.000	0.000	0.004
	1315	-HILLS-	0.011	0.024	0.065
	1345		0.000	0.011	0.071
	1400		0.001	0.007	0.040
	1415 OK		0.004	0.024	0.061
	1430		0.000	0.021	0.034
	1445		0.000	0.007	0.025
	1500		0.000	0.000	0.004
	1515		0.000	0.030	0.066
	1530		0.003	0.011	0.041
	1550		0.004	0.019	0.029

MEI - 2 oper, 3 lab  
 Wendel - 1 Surveyor

Wendel Bros 3 loads stone delivered 08<sup>00</sup>

3 loads taken to Necco Park 08<sup>10</sup> - 08<sup>50</sup>

PEZZELL Loading Trucks  
 Plastic lining @ bottom of bed  
 TRUCKS TARPED prior to leaving  
 washed down

08<sup>15</sup> 4<sup>th</sup> Load of stone delivered (Brooks)

08<sup>25</sup> up 0.000 cross 0.002 down 0.003

8<sup>40</sup> 4<sup>th</sup> truck loaded for Necco Park

- Wendel to Shoot finished subgrade

DOZER fine grading subgrade by soil's stockpile 3951 DOZER

8<sup>45</sup> 2 more trucks arrived w/ stone

9<sup>00</sup> 2 trucks loaded for Necco Park - 1 truck to haul on-site materials

08<sup>55</sup> up 0.066 cross 0.000 down 0.000

09<sup>15</sup> up 0.000 cross 0.000 down 0.000

09<sup>50</sup> up 0.012 cross 0.035 down 0.067

09<sup>50</sup> up 0.008 cross 0.007 down 0.013

10<sup>25</sup> up 0.000 cross 0.006 down 0.001

10<sup>49</sup> up 0.025 cross 0.033 down 0.094

10<sup>50</sup> Loading site truck to haul load to Necco Park

11:15 3 trucks + 1 Brooks truck arrived w/ load of stone  
 + loaded w/ soil to Necco Park. Plastic lining, tire wash, etc.

11:30 up 0.012 cross 0.027 down 0.085

11:45 up 0.021 cross 0.063 down 0.099

11:55 Mallare truck arrived w/ stone - 11<sup>th</sup> load today ⇒ 11 loads to Necco

In the notebook. JSW.

Summaries  
 Thomas Dairy



CUSTOMER:100479  
GOLDER ASSOCIATES INC  
2221 NIAGARA FALLS BLVD  
SUITE 9  
NIAGARA FALLS  
NY 14304  
TELEPHONE: 716-215-0650

DEPOT: 402  
ASSTEAD TECHNOLOGY RENTALS  
1057 E. HENRIETTA ROAD  
ROCHESTER, NY 14623  
(585) 424-2140

TELEPHONE: 585-424-2140

SITE ADDRESS:  
GOLDER P/U WED 5/25 PM

ORDER NO: 0539437  
RENTER : MIKE BRACKI  
SITE REF: CF 2W  
SERVED BY CHRISTOPHER COSTANZA (402)

RENTAL CONTRACT CREATION 402-013289/1 MAY-25-05  
=====

CODE	Equipment & Accessories	RATE	TAKEN
R3928	MIE PERS. DATARAM #1000		1
	TESTED AS PER CHECKLIST T116		1
	TESTED BY _____		

RECEIVED/UNCHECKED JUN 22 10:44 F

JUN 22 2005

Ashtead Technology

CONTRACT COMMENCED THU MAY-26-05

INSURANCE VALUE -----

WEIGHT -----

DIM WEIGHT -----

SIGNATURE  
CUSTOMER \_\_\_\_\_

PRINT NAME  
\_\_\_\_\_

Our CURRENT Terms & Conditions, which supersede all previously published T&C's, are available from your local Ashtead Technology office.

# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER: 053-9437  
OWNER: Dupont  
LOCATION: Lyndonville

PROJECT TITLE:  
CONTRACTOR:

(18) DATE June 27, 2005 S  T W T F S

THE FOLLOWING WAS NOTED: Karen Wehn arrived on site @ 0800 hrs.  
Golden: Boacci + Wehn MCI: 2 operators 2 laborers  
Chenango: 5 for liner  
Weather: 70°F - 90°F, still to F 5mph Sunny / Cloudless

Activity 1 - Placing sand on parkinglot subgrade to even out pits and rocks - The sand was then rolled with smooth roller.

Activity 2 - Final grading of clean soils in the ditch by MCI and delivery of six trucks of clean soil. Jeff on CAT Dozer and Duane OBE on stakes

Activity 3 - Laying of liner (Chenango) in the parkinglot area. Chenango was ready to deploy liner at 1315 hrs and used a Dodge Ram 3500 truck with a puller hitched to the leading edge of the roll while MCI used the crane/bucket of Ex200 to hold the roll. We worked until 6:00pm (1800 hrs)

Totals today are as follows:  
Approximately 30,000 ft square of 60 mil HDPE was deployed south, east + west around juice building.  
Fusion seaming totaled 1110 linear feet.  
No other liner seaming / tests were done.  
Deployment = 30,000 ft<sup>2</sup>  
Fusion Seaming = 1110 linear ft.

10 hrs

SUBMITTED BY GCS

Karen S. Wehn  
MONITOR







# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

(19) DATE June 28, 2005 S M  W T F S

THE FOLLOWING WAS NOTED:

Karen S. Wehn + Mike Bracci onsite @ 0730 hrs.

Weather - Hot (75° - 95° F) Cloudless, sunny, still  
No ppt

Activity 1: Completed laying the rest of the 60ml liner in the parking lot. Total for the lot to be lined & paved is 70,000 ft<sup>2</sup> of liner. (Approximate) DEPLOYED 71,500 ft<sup>2</sup> |  
(see accompanying deploy forms)

Activity 2: Seaming with the wedges 654 + 702 CS and KC splicing. Approx (1100' seams) and eight Fusion destructs. my total  
(see accompanying seam forms)

Activity 3: Air-pressure seam (Fusion) Testing. Performed 47 air pressure tests (43 on June 28<sup>th</sup> but seam P12-P13 occurs on 6/29 paperwork.)

## Forms attached

- (1) Deployment forms
- (2) Seam Form
- (3) Test Seam Form
- (4) Pressure-Test Form

Departed @ 5:05 (1705) = 9.5 hrs

SUBMITTED BY GCS

Karen S. Wehn

MONITOR

# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER: 053-9437.  
OWNER: Dupont  
LOCATION: Lyndonville

PROJECT TITLE:  
CONTRACTOR:

(20) DATE 06-29-2005 S M T ● T F S

THE FOLLOWING WAS NOTED: KS Wehn - on site @ 700hrs  
Weather = Sunny, hot (85°-90°F) 5mph breeze in morning

Activities today centered around liner QA/QC.

Activity 1: Finishing up all Fusion-seam air-pressure testing. 42 tests done yesterday and 18 today. 43 all passed but 2 and these are short seams that will be capped. (Total = 61)

Activity 2: Extrusion seam activity - Test extrusion welds. Seaming for patches caps + boots. Most seaming and repairs today were done around the juice building. Find attached the following:

- 1 Trial extrusion weld page
- 2 Extrusion seam logs for repairs
- 2 Geomembrane repair logs (28 repairs)
- 2 Vacuum Box test logs (39 tests)

DF-08 failed the lab test, so we collected DF-08A (after) and DF-08B as well as DX-01 after 4:39' of extrusion weld.

Dave Wooden, Joe (Chenango) and John (Chenango) and I cleared P1, P2, P3, P4, P5 and P7, P8 for MCI to go ahead and lay fabric + push stone tomorrow.

SUBMITTED BY GCS

Karen S. Wehn

MONITOR



# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER: 053-9437  
OWNER: Dupont  
LOCATION: Lyndonville, NY

PROJECT TITLE: MCI / Lyndonville Site / NY  
CONTRACTOR: MCI / Chemung

DAY (23)

DATE

7/5/05

SMTWTFSS

THE FOLLOWING WAS NOTED: ARRIVED @ 07<sup>00</sup>

- MCI - 4 personnel, Chemung - 2 operators
- Chemung repaired one area which was damaged over the weekend with a 1x1 patch. Machine 250 was used to extensively weld the patch. A trial weld was performed with passing results. The repair was vacuum tested with no leaks.
- MCI completed 800 geotextile installation today. A total of 10,350 FT<sup>2</sup> was installed, and on heat & tamped today. CCT cleared up completed surface by removing scraps & sandbags.
- MCI continued grading stone liner over the geotextiles using a cat 04 dozer. The stone is being placed & graded to a lift thickness of approx 5.5 inches over the geotextiles per the design drawings. The dozer operator is doing a good job with rolling the stone off the blade to avoid creating wrinkles. A MCI laborer is in front of dozer walking out wrinkles also.
- MCI's subcontractor was on site today to set the gate fenceposts & gas vent holes. A total of 10 areas were required: 4 fence posts, 4 bollards, 2 gas vents. A 12" auger with Robert set up was used to auger holes. The gas vents were augered to a depth of 2' below liner grade and the fence posts & bollards were augered to 3' below liner grade. All 10 areas will require liner boots & geotextile repair which is scheduled for 7/6/05.
- MCI installed 2 gas vents today in accordance with detail 5 on drawing No. 9. The gas vent was backfilled with #57 Stone. The slots in the 4" PVC pipe were made using a chain saw rather than the factory slotted as discussed w/ D. Wooten. The 180° goose-neck was faced in a northern direction for each gas vent. 2 bollards were installed around each gas vent using 4" steel pipe.
- MCI staked out the location of the 24" stormwater pipe.

SUBMITTED BY GCS  
Michael Swan  
MONITOR



# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

(19) DATE

June 28, 05

S M T W T F S

THE FOLLOWING WAS NOTED: KS Wehn on site @ 0700 hrs

Weather: 72° F - 94° F - sunny, humid and warm.

Crews: Mike Bracci + Karen Wehn

MCI 2 operators; 2 laborers. Chenango crew of eight.

Activities today: complete the cover of membrane over the North west, North central + North east sides of the parking-lot / juice building (North of it).

1. Got certificate of acceptance for clay surface / map
2. Deployed panels P-12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 = 18 panels finished the Lines. Total deployed = 71,500' approx.
3. Six fusion trial seams were done with Mike and one Extrusion trial seam (2 forms are enclosed)
4. Seams (fusion) = 358 + 383 + 213 = 954' of Fusion on Machine # 659;  
Seams (Fusion) = 750' seam on <sup>mouse</sup> gun # 702  
Extrusion = 114' Seams done on repairs + testing. (gun # 250)
5. We did 43 seam air-pressure tests.
6. We completed 16 repairs.

This is the day we completed covering and began and finished most fusion seam testing.

SUBMITTED BY GCS

Karen S. Wehn

MONITOR

# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER: 053-9437.  
OWNER: Dupont  
LOCATION: Lyndonville

PROJECT TITLE:  
CONTRACTOR:

(20)

DATE

<sup>29</sup>  
June 28, 05

S M T W T F S

THE FOLLOWING WAS NOTED:

Arrival of KSW on site - 0700 hrs.

Weather: Hot / humid / sunny  $\approx$  95° F Top end. Not much breeze.

Today's activities focused on lines and detailing while MCI worked on subgrading #57 stone all around the juice building. Fabric had been placed on top of the membrane before grading of stone.

1. 2 extrusion trial welds were done - each passed.
2. Approx. 450' of extrusive welds were done on repairs, we had done two destructive tests (DX-01, DX-02) on these welds every 500' cumulative.
3. We completed repairs for defect logs 2 + 3 - making all repairs completed for Defect Logs 1, 2 + 3. (40 repairs today; 60 Total)
4. We finished up all pressure testing today; Seams we hadn't tested yesterday were in the North and NE corner.
5. We completed 39 V-box tests

Submitted: 1 daily 2 V-Box logs  
1 Trial weld log  
2 Extrusion seam logs  
2 Defect logs (2 + 3)  
1 Seam AIR-PRESSURE test log  
1 complete repair log.

SUBMITTED BY GCS

Karen S. Wekin

MONITOR

# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

(19)

DATE

June 30, 2005

S M T W  F S

THE FOLLOWING WAS NOTED:

K. S. Wehn on site @ 0700 hrs

Chenango + HCR present @ 10:30 AM meeting at 0700 hrs

Weather: Hot (75° - 89° F) Sunny / Heavy w/ humidity  
Light breeze.

Activity focusing on finishing detailing liner so that  
we can lay fabric and stone.

Panels OK'd today. The remainder of panels were OK'd  
for deploying stone. AFTER 2 remaining air tests were  
made -

- ① Two trial seams (extrusion) are attached  
(1 Form)
- ② Geomembrane seam logs (2 attached) - 2  
pages - all repair & extrusive seams.
- ③ Continuing to test defect repairs - 30 repairs  
were completed and 30 vacuum box tests  
were performed, and 6 spark tests on boots  
were performed. All passed.
- ④ We also found 2 air pressure tests that needed  
to be performed. They passed, also.
5. Defect log # 4 has been filled in - that means  
that there are 20 repairs that are repaired, tested  
and have passed for a total of 80 to date.

SUBMITTED BY GCS

Karen S. Wehn

MONITOR



# FIELD MONITORING REPORT

PAGE \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

(22) DATE 07/01/2005 S M T W T S

THE FOLLOWING WAS NOTED: Karen S. Wehn on site @ 0700 hrs

Weather: Hot - 75-82°F. Mostly sunny. No ppt?

Focus today is on S Chenango activities - final detailing and documenting so that stone can be laid on the liner after the fabric is down, sewn and the sewn seams approved.

① 2 extension trial seams were tested & documented (1 Form)

② We did boots and skirts at the North east corner of the property where the light pole (utility pole) and power-box + two large yellow bumper posts are located. We also made a boot for the grounding wire. We added extensions to P-21 P-19, P-24. The boots were spark-tested, + all seams were vacuum tested for leaks. None were noted.

After these repairs were done, the liner crew left for the long weekend.

Mike will be here on the 5th of July.

SUBMITTED BY GCS

Karen S. Wehn

MONITOR

# FIELD MONITORING REPORT

PAGE 1 OF 1

PROJECT NUMBER:  
OWNER:  
LOCATION:

PROJECT TITLE:  
CONTRACTOR:

(24)

DATE

July 6, 2005

S M T  T F S

THE FOLLOWING WAS NOTED: Weather - Cloudy/overcast. 72°-82° F  
precipitation expected but not received.

activities today consisted of boots for 2 bumper posts, west end of P-02/08 near Dobbins. These 3 boots were installed, spark-tested and vacuum boxed. All passed, were clamped and OK'd for replacing fabric + placing stone

Next, boots for 2 bumper posts and a gas vent / gate post at the North west corner of the property. These are repairs 5J, 5K, 5M, 5N. 5P is the north gate-post. These were repaired, spark tested and V-boxed. All passed.

Two trial extrusion welds were done. The first one in the morning + the first one in the afternoon (TX-01 + TX-03 respectively) failed due to inconsistent thickness of material. TX-02, TX-04 passed.

1530 hrs - we began the last 2 repairs - the two northeast gate-posts. Joe joined in to help w/ these last two boots (5Q, 5R). These were put into place, spark tested and V-Boxed. All passed.

SUBMITTED BY GCS

Karen S. Wehn

MONITOR







NEW YORK STATE  
DEPARTMENT OF TRANSPORTATION  
MATERIALS BUREAU

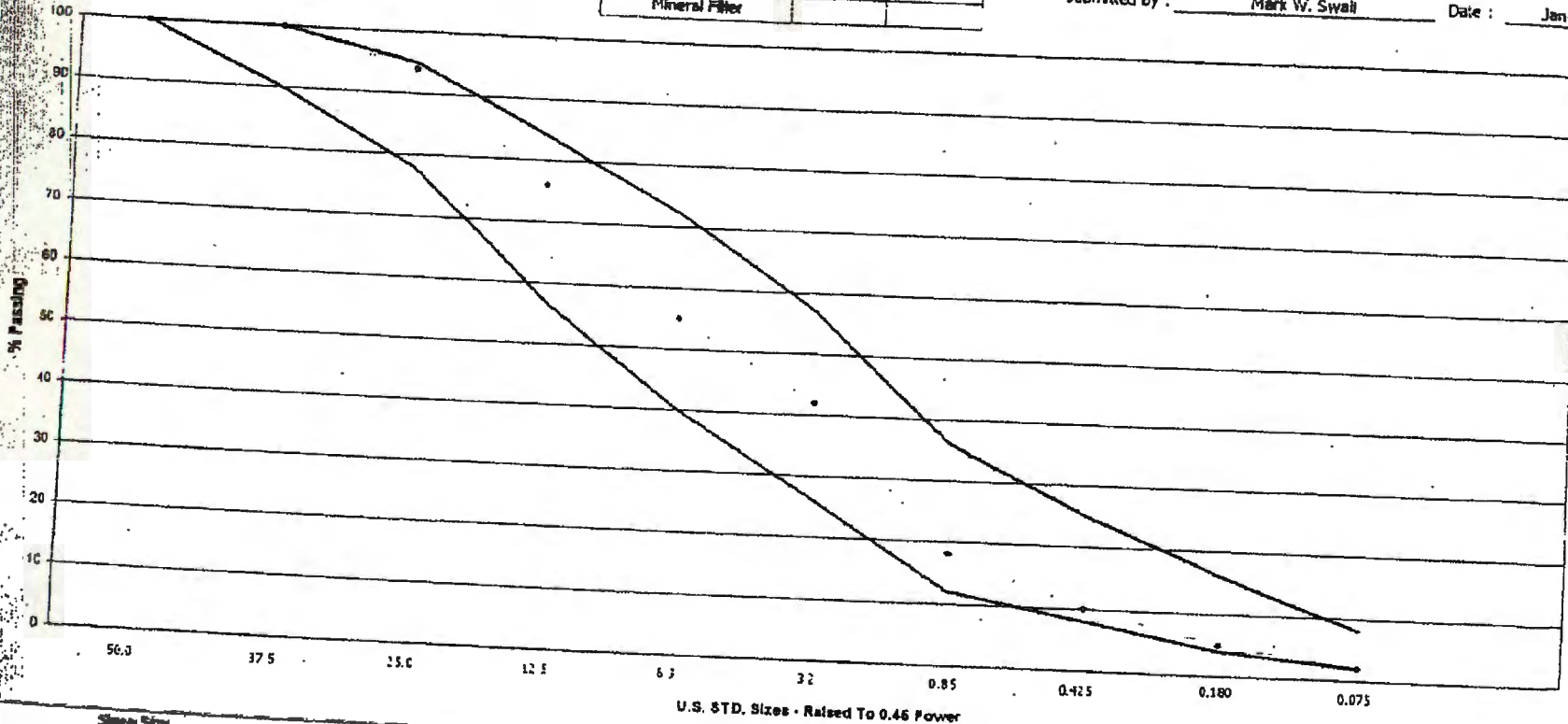
Aggregates	Source	%
No. 3A	4-18R	13.5
No. 2	4-18R	13.5
No. 1	4-18R	18
No. 1A	4-18R	18
Hotbin Fines	4-18R	45
Mineral Filler		

JMF # : 020430611  
 Facility # : 10306  
 Region : 4

**JOB MIX FORMULA**

DOT Base

Producer : Barre Stone Products, Inc.  
 Plant Location : Ablion Batch  
 Submitted By : Mark W. Swail Date : Jan-02



U.S. STD. Sizes - Raised To 0.46 Power

Sieve Size	50.0 mm	37.5 mm	25.0 mm	12.5 mm	6.3 mm	3.2 mm	850 μm	425 μm	180 μm	75 μm	Binder Content
1. General Limits	100	78 - 95	57 - 84	40 - 72	26 - 57	12 - 36	8 - 25	4 - 16	2 - 8	4.0 - 6.0	
2. JMF Range	100	89 - 99	70 - 82	48 - 62	35 - 49	11 - 25	3 - 17	1 - 9	0 - 4	4.0 - 4.9	
3. Target Value	100	63	76	55	31	15	10	5	3	4.5	

Binder Grade  
DOT 45

Reviewed by Regional Director: Mark Swail  
 Remarks: PG 58-28 may be substituted for road cuts and temporary work, as approved by R.M.E.

Date: 1/10/02

MAY-20-05 08:18 PM DOT.RTE.383 T16.235.4682 P.01

BR 347

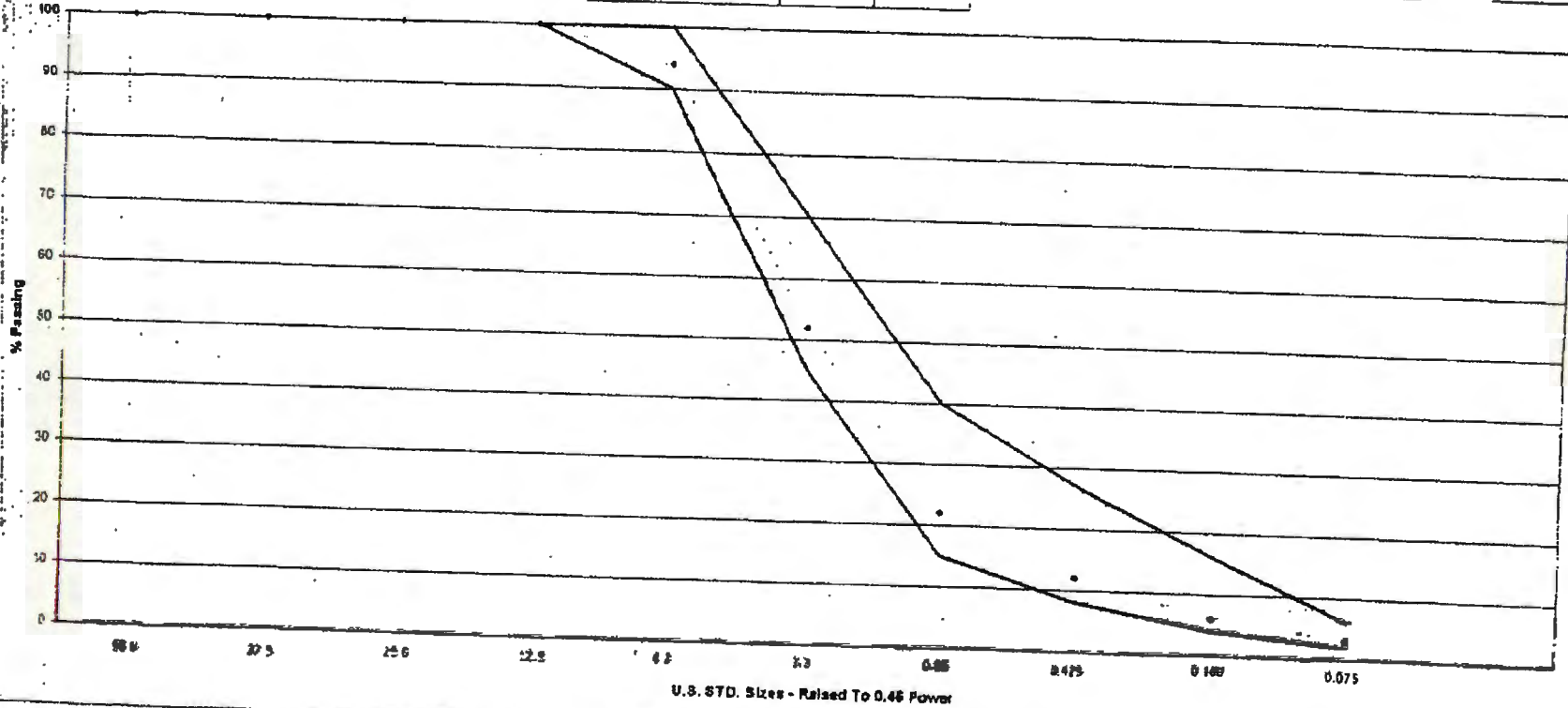


NEW YORK STATE  
DEPARTMENT OF TRANSPORTATION  
MATERIALS BUREAU

JOB MIX FORMULA  
Type 7 Top

Aggregates	Source	%
No. 3A		
No. 2		
No. 1		
No. 1A	4-18R	15
Holbin Fines	4-18R	55
Mineral Filler		

JMF # 020430618  
 Facility # 10306  
 Region 4  
 Producer Bone Stone Products Inc  
 Plant Location Albion Batch  
 Submitted By Mark W. Swatt Date Jan-02



Sieve Size	50.0 mm	37.5 mm	25.0 mm	12.5 mm	6.3 mm	3.2 mm	850 $\mu$ m	425 $\mu$ m	180 $\mu$ m	75 $\mu$ m	Binder Content	Binder Grade
1. General Limits				100	90 - 100	45 - 70	15 - 40	3 - 27	4 - 16	2 - 6	5.7 - 8.0	PG 64-28 *
2. JMF Range				100	90 - 100	46 - 58	15 - 29	5 - 19	2 - 10	1 - 5	5.8 - 6.6	
3. Target Value				100	90	50	20	10	5	2	6.2	

Reviewed by Regional Director

*Mark W. Swatt*

Remarks: PG 58-28 may be substituted for road cuts and temporary work, as approved by R.M.E.

Date:

*Mark W. Swatt*



DuPont Corporate Remediation Group



Date: 06/06/05

Mark Cerrone Inc.  
P. O. Box 3009  
Niagara Falls, N. Y. 14304

**TRANSMITTAL LETTER**  
**CRG Project No. 507619**

The following items are being sent (For completion and Resubmit):

- As attachments     under separate cover via \_\_\_\_\_  
 Shop drawings     Prints                     Change order     Plans     Copy of letter  
 Samples             Specifications     Document         Other: Submittal Response

No. of Copies	Date	No. of Pages	Description
2	5/27/05		02274-01 Geotextile

These items are transmitted for the following purpose:

- For approval     For your use     As requested     For review and comment  
 Approved as submitted     Approved as noted     Returned for corrections  
 Resubmit missing information                                     Submit \_\_\_\_\_ copies for distribution  
 Return \_\_\_\_\_ corrected prints                                     For bids due \_\_\_\_\_     Prints returned after loan

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

cc: Russ Killebrew  
T. Stajkowski  
Jeff Salvatore

Signed: David Wooten

# CHENANGO CONTRACTING, INC.

---

29 ARBUTUS ROAD  
JOHNSON CITY, NEW YORK 13790  
(607) 729-8500 FAX (607) 729-2415

May 23, 2005

Mr. Jeff Salvatore  
Mark Cerone, Inc.  
2368 Maryland Ave.  
Niagara Falls, NY 14305

Subject: Geotextile Submittal Package  
DuPont Lyndonville Project

Dear Jeff:

With reference to Specification Section 02274 – Geotextile please find the following information. Specifically, we propose to utilize SKAPS GE-180 Geotextile for this project.

#### 1.4 Submittals

- A. Please refer to the attached SKAPS Physical Property Sheet. SKAPS requests exception to the following properties:
  - 1. Permittivity 1.26 sec-1 vs. 1.5 sec -1,
  - 2. Grab Strength 225 lbs vs. 230 lbs, and
  - 3. Trapezoidal Tear Strength 90 lbs vs. 95 lbs
- B. Please refer to the attached SKAPS Brochure.
- C. Please refer to the attached SKAPS Brochure.
- D. Roll Certificates will be submitted upon manufacturing.
- E. Chenango Contracting excluded this testing in their contract.

If you have any questions concerning this submittal please do not hesitate to contact me.

Sincerely,  
CHENANGO CONTRACTING, INC.



Carl J. Burdick, P.E.

Attachments      6 Copies      SKAPS Brochure  
SKAPS Proposed Material Physical Property Sheet  
Material Samples

Send To Printer

**Geotextile Product Description Sheet**  
**Skaps GE - 180**  
**8 oz Nonwoven Geotextiles**



SKAPS GE-180 is a needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, which are formed into a random network for dimensional stability. SKAPS GE-180 resists ultraviolet deterioration, rotting, biological degradation, naturally encountered basics and acids. Polypropylene is stable within a pH range of 2 to 13. SKAPS GE-180 conforms to the physical values listed below:

PROPERTY	TEST METHOD	UNIT	M.A.R.V. (Minimum Average Roll Value)
<b>Weight</b>	ASTM D5261	oz/sy (g/m <sup>2</sup> )	8.0 (271)
<b>Thickness*</b>	ASTM D5199	mils (mm)	100 (2.5)
<b>Grab Tensile</b>	ASTM D4632	lbs (kN)	225 (1.0)
<b>Grab Elongation</b>	ASTM D4632	%	50
<b>Trapezoid Tear Strength</b>	ASTM D4533	lbs (kN)	90 (.40)
<b>Puncture Resistance</b>	ASTM D4833	lbs (kN)	130 (.578)
<b>Mullen Burst Strength</b>	ASTM D3786	psi (kPa)	425 (2928)
<b>Permittivity*</b>	ASTM D4491	sec <sup>-1</sup>	1.26
<b>Permeability*</b>	ASTM D4491	cm/sec	.30
<b>Water Flow*</b>	ASTM D4491	gpm/ft <sup>2</sup> (l/min/m <sup>2</sup> )	100 (4074)
<b>A.O.S.*</b>	ASTM D4751	U.S. Sieve (mm)	80 (.180)
<b>U.V. Resistance</b>	ASTM D4355	%/hrs	70/500

\* At the time of manufacturing. Handling, storage, and shipping may change these properties.

PACKAGING	
<b>Roll Dimension (W x L) - Ft</b>	15 x 690
<b>Square Yards per Roll</b>	1150
<b>Estimated Roll Weight - lbs</b>	620

This information is provided for reference purposes only and is not intended as a warranty or guarantee. SKAPS assumes no liability in connection with the use of this information.

**Engineered Synthetic Products, Inc.**  
**405 Hood Road - Lilburn, Georgia - 30047**  
**Office: 770-564-1857; Fax: 770-564-1818**  
**www.espgeosynthetics.com**





**SKAPS INDUSTRIES**  
**NONWOVEN DIVISION**

Sales Office:  
Engineered Synthetic Products, Inc.  
405 Hood Road  
Lilburn, GA USA 30047  
[www.espsynthetics.com](http://www.espsynthetics.com)  
[www.skaps.com](http://www.skaps.com)

# **QUALITY CONTROL**

# **PROGRAM OUTLINE**

# SKAPS Industries

## Nonwovens

### QUALITY CONTROL PROGRAM OUTLINE

#### RAW MATERIAL QUALITY CONTROL

All raw materials used in the manufacturing of SKAPS Nonwoven products are certified by the supplier to meet the most stringent production standards in the industry. Each truckload of fiber received by SKAPS Nonwovens is certified by the resin supplier's Quality Control Manager to meet specifications as set by SKAPS Industries. All fiber released to production can be tracked by supplier and individual bale number for up to one year after the fiber is processed.

#### DEFINITION OF 'LOT'

A Lot is a planned production quantity satisfying all of the following:

- Manufactured under the same material specification.
- Identified as the same style (fabric designation).
- When tested, having physical characteristics consistent with published values.

#### QUALITY CONTROL CONFORMANCE SAMPLING OF EACH LOT

As a minimum, a number of production units shall be selected at random from each lot in accordance with TABLE 1.

TABLE 1  
Number of Units Selected as Lot Samples  
Specification Conformance

Number of Units in Lot	Number of Units Selected
1 to 2	1
3 to 8	2
9 to 27	3
28 to 64	4
65 to 125	5
126 to 216	6
217 to 343	7
344 to 512	8
513 to 729	9
730 to 1000	10
1001 or more	11

Note: A production unit is considered to be a shipment roll.

Typically, the first shipment roll from each line will be sampled. It will be necessary to consider the minimum planned production quantity to determine if more frequent sampling and testing is required.

**Quality Control Testing of Each Sample:**

Each quality control sample shall be sent to the quality control lab before the end of the shift during which the sample was taken. Full identification of the sampled roll will be provided with the sample.

The following tests are performed on each sample:

TEST PROPERTY	TEST METHOD
Weight	ASTM D 5261
Thickness	ASTM D 5199
Grab Tensile	ASTM D 4632
Grab Elongation	ASTM D 4632
Trapezoid Tear Strength	ASTM D 4533
Puncture Resistance	ASTM D 4833
Mullen Burst Strength	ASTM D 3786
Water Flow Rate	ASTM D 4491
Permeability	ASTM D 4491
Permittivity	ASTM D 4491
U.V. Resistance	ASTM D 4355
Apparent Opening Size (AOS)	ASTM D 4751

**Quality Control Test Results:**

All quality control test results will be maintained by the Quality Control Manager along with the corresponding shipment roll identification.

The Quality Control Manager will make lot testing summaries available upon request detailing the individual test results and aggregate mean, minimum and standard deviations of each test property for the shipment rolls under consideration.



## SKAPS NONWOVENS QUALITY CONTROL PLAN

The Quality Control Department tests nonwoven fabrics at the following frequencies. The tests for these properties are routine with test results reported representing each roll of fabric produced.

### MINIMUM TESTING FREQUENCY IN SQUARE FEET

PROPERTY	UNITS	TEST METHOD	MINIMUM FREQUENCY SQUARE FEET
Mass/Unit Area	oz/yd	ASTM D 5261	10,000
Thickness	mils	ASTM D 5199	10,000
Grab Tensile Strength	lbs	ASTM D 4632	10,000
Grab Elongation	%	ASTM D 4632	10,000
Trapezoidal Tear Strength	lbs	ASTM D 4533	15,000
Puncture Strength	lbs	ASTM D 4833	15,000
Mullen Burst	psi	ASTM D 3786	15,000
Apparent Opening Size	U.S. Sieve	ASTM D 4751	65,000
Permittivity	sec <sup>-1</sup>	ASTM D 4491	65,000
Permeability	cm/sec	ASTM D 4491	65,000
Water Flow	gpm/ft <sup>2</sup>	ASTM D 4491	65,000

Additional testing is conducted on non-routine properties in the SKAPS Quality Control Lab or at a reputable independent test lab. Examples of non-routine tests include:

PROPERTY	UNITS	TEST METHOD
Abrasion-Sliding Block	% strength retention	ASTM D 4886
Abrasion-Rotary Platform	lbs	ASTM D 3884
U.V. Resistance-Fluorescent Type	% strength retention	ASTM G 53
U.V. Resistance-Xenon Type	% strength retention	ASTM D 4355
Wide Width	lbs/in	ASTM D 4595

SKAPS conforms and adheres to the following additional ASTM Test Methods relating to fabric identification, sampling and specification conformance:

- ASTM D 4873 Identification, Storage and Handling of Geotextiles
- ASTM D 4354 Sampling of Geosynthetics for Testing
- ASTM D 4759 Determining Specification Conformance of Geosynthetics



## CIVIL PRODUCTS

Product	GT131	GT135	GT140	GT142	GT160	GT170	GT180	GT110	GT112	GT116
Square Yard	500/600	500/600	500/600	500/600	500	500	500	500	500	250
<b>Testing Frequency, Number of Rolls</b>										
Mass/Unit Area	20/15	20/15	20/15	20/15	20	20	20	20	20	40
Thickness	20/15	20/15	20/15	20/15	20	20	20	20	20	40
Grab Tensile Strength	20/15	20/15	20/15	20/15	20	20	20	20	20	40
Grab Elongation	20/15	20/15	20/15	20/15	20	20	20	20	20	40
Trapezoidal Tear Strength	30/25	30/25	30/25	30/25	30	30	30	30	30	60
Puncture Strength	30/25	30/25	30/25	30/25	30	30	30	30	30	60
Mullen Burst	30/25	30/25	30/25	30/25	30	30	30	30	30	60
AOS	130	130	130	130	130	130	130	130	130	260
Permittivity	130	130	130	130	130	130	130	130	130	260
Permeability	130	130	130	130	130	130	130	130	130	260
Water Flow	130	130	130	130	130	130	130	130	130	260

## ENVIRONMENTAL PRODUCTS

Product	GE140	GE160	GE170	GE180	GE110	GE112	GE114	GE116
Square Yard	2250	1500	1300	1150	950	800	650	600
<b>Testing Frequency, Number of Rolls</b>								
Mass/Unit Area	4	6	7	8	10	12	15	16
Thickness	4	6	7	8	10	12	15	16
Grab Tensile Strength	4	6	7	8	10	12	15	16
Grab Elongation	4	6	7	8	10	12	15	16
Trapezoidal Tear Strength	6	10	11	13	15	18	23	25
Puncture Strength	6	10	11	13	15	18	23	25
Mullen Burst	6	10	11	13	15	18	23	25
AOS	28	43	50	56	68	80	100	108
Permittivity	28	43	50	56	68	80	100	108
Permeability	28	43	50	56	68	80	100	108
Water Flow	28	43	50	56	68	80	100	108

## **ROUTINE CHECKS**

The following checks of SKAPS nonwoven fabrics are routine during manufacturing:

1. **Visual inspection** – Line Inspector inspects fabric for good selvages, weight verification, correct take-up and needle streaks.
2. **Metal Detection** - Three metal detectors are positioned on the production line to detect needles or other contaminants. If needles are detected, the line automatically shuts down and needles are located and removed.

Certifications are required on all fiber purchases to control raw material properties. SPC data is required for each shipment.

In SKAPS' SPC system of quality reporting, a request for corrective action is issued resulting from any property falling to meet specification for three sequential occurrences.

This system has been implemented to correct all non-conforming material. It is SKAPS Industries' policy to ship only fabric meeting or exceeding specification. A Quality Report is issued daily summarizing manufacturing production.



## SAMPLING FREQUENCY OF WOVEN GEOTEXTILES

The sampling frequency of woven geotextiles exceeds the requirements of ASTM D-4354. ASTM D-4354 requires that the cubed root of the number of rolls in a lot be tested. Following is a table outlining the number of samples to be tested per lot size.

<u>Number of Units In Lot</u>	<u>Number of Units Selected</u>
1 to 2	1
3 to 8	2
9 to 27	3
28 to 64	4
65 to 125	5
126 to 216	6
217 to 343	7

For the purposes of defining a lot to determine sample frequency a truckload quantity will be used. Using style W300 150" X 360', it takes 220 rolls to fill a truck. According to ASTM D-3454, the number of rolls that should be tested is seven.

Product	Rolls/truck	Yds/truck	Yds/beam	Samples/truck	Samples needed
W200 150" X 432'	241	34,704	6,000	10	7
W200 210" X 309'	176	18,128	6,000	6	6
W300 150" X 360'	220	26,400	6,000	8	7
W300 210" X 258'	144	12,384	6,000	6	6
W200 150" X 432'	Sample 1 <sup>st</sup> and 4 <sup>th</sup> master roll off loom for each loom beam				
W200 210" X 309'	Sample 1 <sup>st</sup> and 4 <sup>th</sup> master roll off loom for each loom beam				
W300 150" X 360'	Sample 1 <sup>st</sup> and 4 <sup>th</sup> master roll off loom for each loom beam				
W300 210" X 258'	Sample 1 <sup>st</sup> , 3 <sup>rd</sup> and 5 <sup>th</sup> master roll off loom for each loom beam				

Consider the weave room running style W300 150" X 360' with 6,000 linear yards on yarn on a loom beam. Put-up of master rolls from the loom beam will be approximately 1,000 yards per roll. Six master rolls will be produced from the loom beam. Two samples should be taken from the loom beam. The first sample should be taken from the first master roll off the loom. The second sample should be taken from the fourth master roll off the loom beam.

In the example of using a truckload lot of W300 150" X 360' with 220 rolls on a truck, there will be 26,400 linear yards of fabric in the lot. This translates to approximately 4.4 loom beams of warp yarn per truck for a total of eight samples tested. Since the number of samples tested meet the ASTM method, the requirements of ASTM D-4354 are met.

## WOVENS SAMPLING PROCEDURE

W200 150" X 432'	Sample 1 <sup>st</sup> and 4 <sup>th</sup> master roll off loom for each loom beam
W200 210" X 309'	Sample 1 <sup>st</sup> and 4 <sup>th</sup> master roll off loom for each loom beam
W300 150" X 360'	Sample 1 <sup>st</sup> and 4 <sup>th</sup> master roll off loom for each loom beam
W300 210" X 258'	Sample 1 <sup>st</sup> , 3 <sup>rd</sup> and 5 <sup>th</sup> master roll off loom for each loom beam

This test frequency exceeds the requirements in ASTM D-4354.

## LAB PROCEDURES

Weight	ASTM D-5261
Grab Tensile	ASTM D-4632
Grab Elongation	ASTM D-4632
Trap Tear	ASTM D-4533
Burst	ASTM D-3786
AOS	ASTM D-4751



# **SKAPS INDUSTRIES**

## ***NONWOVEN DIVISION***

# **GEOTEXTILE INSTALLATION INSTRUCTIONS**

**SEWING / INSTALLATION GUIDE**

**NONWOVEN GEOTEXTILES**



# SKAPS INDUSTRIES

## Nonwoven Division

### Installation Procedure Geotextile Fabrics

#### I. Geotextile Unloading & Storage:

- A. The geotextile shall be labeled, stored, and handled in accordance with ASTM D 4873, "Guide for Identification, Storage and Handling of Geotextiles".
- B. Geotextile rolls are to be unloaded under supervision of the geotextile installer using straps or other devices that will prevent damage to the geotextile material.
- C. The geotextile shall be kept dry and wrapped in a waterproof wrapping so that it is protected from UV light and the elements during shipping and storage. Torn wrapping shall be repaired as quickly as possible using an approved protective covering.
- D. Rolls should be stored on supports that will not damage the material. The material must be elevated at least 2 inches above the sub grade.
- E. If any material is found to be damaged during unloading, a notation should be made as to the roll number, location of damage and type. This information should be given to the Project Manager.

#### II. Material Deployment

- A. No material is to be deployed until the Project Inspector has inspected and approved installation of the geotextile.
- B. Material will not be deployed when moisture, high winds, or other adverse weather conditions are expected. This determination will be made by the Field Installation Superintendent (FIS).
- C. Geotextile materials are to be deployed using methods that will not damage the material. The material will be visually inspected during deployment and any faulty or unsatisfactory areas will be marked for corrective action.
- D. If necessary, temporary sand bags may to be used to prevent material uplift and movement from winds during geotextile installation. The number and location of sand bags will be determined by the FIS.
- E. All folds and excessive wrinkles are to be removed prior to sewing adjacent panels together.
- F. On slopes, the geotextile shall be anchored at the top and unrolled down the slope.

### **III. Material Seaming**

- A. Field seams are to be made by using sewing machines and thread specifically adapted for this purpose.**
- B. Adjacent panels are to be overlapped a minimum of six inches and sewn together. A sewing crew is to consist of a sewing machine operator and at least one assistant to help align the materials. The machine operator and assistant are to inspect opposite sides of the seam for dropped or incorrect stitches.**
- C. Seams shall be sewn utilizing one or two rows of stitching. Each row shall consist of 4 to 7 stitches per inch.**
- D. Damaged areas of geotextile are to be patched with an additional layer of geotextile material. The patch is to overlap the damaged area by a minimum of six inches on each side and is to be heat bonded to the main layer of geotextile.**
- E. Thread should be of contrasting color to the fabric to facilitate seam inspection.**
- F. The installer shall ensure that no soil materials are present within seams or overlaps.**

### **IV. Project Documentation**

- A. The FIS will maintain the following documentation on a daily basis:**
  - 1. Log of job activities, including number of personnel, weather conditions, and quantity of geotextile deployed.**
  - 2. Listing of material placed, including panel size and location, and a cross reference of panel numbers.**
  - 3. Listing of patches and repairs, including location and reason.**
- B. Upon completion of the project, the following documentation is to be provided to the owner or inspector:**
  - 1. Copies of Items 1, 2, and 3 above.**
  - 2. Copies of Material Certifications from the Geotextile Manufacturer, if required by the project specifications.**

## THREAD SPECIFICATION

Threads used to sew geotextiles should be:

- ! Polyester, Polypropylene, or Nylon
- ! Bonded and Thermally Set
- ! 1800 Denier Minimum

SKAPS Nonwovens recommends the use of BT207 - nylon sewing thread which meets or exceeds all these criteria.

Unless otherwise specified, the thread should be of contrasting color to the fabric to facilitate seam inspections.

Thread weight is typically expressed as "denier" or "tex". Denier is the weight in grams of 9000 linear meters of thread. Tex is the weight in grams of one kilometer of thread.

$$2000 \text{ denier} = .222 \text{ g/m}$$

$$230 \text{ tex} = .230 \text{ g/m}$$

For example, one pound of 2000 denier thread contains approximately 6,700 feet (2045 m) of thread.

## THREAD CONSUMPTION

Thread consumption is the length of thread required to sew a linear seam, i.e., seven feet of thread is required to sew one foot of seam. Thread consumption rates for the two-thread and single-thread machines are as follows:

<u>Machine</u>	<u>Length Ratio Thread:Stitch</u>
Two-Thread, Double-Locked Stitch	7:1
Single Thread, Chain Stitch	4:1

## NEEDLES

Needle size is critical to the efficiency of the sewing operation. Needles should be compatible with machine and sewing thread. Needles are available through sewing machine manufacturer representatives.



## **SEWING MACHINES**

### **MODELS**

Field seaming of geotextiles can be accomplished with the following types of sewing machines:

Single Thread, Chain Stitch  
Union Special, American Newlong, or equal  
(Federal Class 101)

(Refer to the Federal Standard on stitches, seams and stitching).

## **SEAMS AND STITCHES**

### **SEAMS**

Three seams that will provide optimum strength for geotextile sewing are the Flat (Prayer) seam, the "J" seam, and the Butterfly-folded seam.

When sewing a flat seam, the stitching should be approximately 1.5 inches from the outside edge of the fabric (not in the selvage or at the selvage edge). The "J" fold and Butterfly fold seams require a fold of 1.25 inches to 2 inches from the fabric edge with the stitching approximately 1 inch from the folded edge.

Care should be taken with either seam to assure that the two fabric edges are even during seaming.

Folders can be attached to the sewing machine to fold and guide the edges of the two fabric layers into the sewing head.

### **STITCHES**

Seams should contain between four and seven stitches per inch to assure adequate strength.

# **SKAPS Nonwovens**

## **HEAT SEAMING of GE-Series Nonwoven Geotextiles**

### **HEAT SEAMING INSTALLATION**

On geotextiles seven (7) ounces per yard or heavier, fusion seaming with a heat gun may be used. The minimum overlap for this type of welding is four (4) inches. Prior to fusion seaming the geotextile together, the installer must demonstrate to the Field Engineer the ability to perform this type of installation. Areas burned through by fusion welding shall be properly repaired. Care should be taken during installation to prevent damage to the geotextile. Torn or punctured material shall be patched with sufficient overlap to prevent separation.

# SKAPS Nonwovens

## SEWING PROCEDURE

Fabric layers should be placed on the ground (preferably firm ground) so that the edges to be sewn are parallel and overlapping. This can be accomplished by a variety of placement techniques. The sewing operation typically requires three men; a machine operator and a man on each side of the machine to aid in fabric throughout. The lead man should hold the fabric edges evenly together and feed the fabric into the sewing machine head or folder. The man behind the machine should hold tension on the fabric so the machine operator has a taut and straight edge to sew across. All three men advance at the machine sewing speed.

If the machine misses a stitch or runs off the fabric, terminate the seam by cutting and tying the thread. Begin a new seam approximately one foot behind the broken seam.





## **CHEMICAL RESISTANCE OF POLYPROPYLENE GEOTEXTILES**

SKAPS Industries nonwoven geotextiles are manufactured from polypropylene with ultraviolet stabilizing additives. The excellent chemical resistance of SKAPS Industries polypropylene geotextiles is one of the qualities which has established SKAPS Industries as a leading producer of geotextiles for use in the waste containment industry. This technical note addresses the chemical resistance of polypropylene with a focus on recent testing programs which have clearly demonstrated the durability of SKAPS Nonwovens fabrics in a variety of chemical environments.

Of the polymers used to manufacture geotextiles, polypropylene exhibits the greatest resistance to chemical attack. In fact, polypropylene is the polymer of choice for such commonly used products as synthetic grass for athletic fields, outdoor carpeting, battery cases, bleach bottles, antifreeze jugs, washing machine agitators, and thousands of other commonly used items that are routinely exposed to chemical environments. Polypropylene is stable within a pH range of 2 to 13, making it one of the most stable polymers available for manufacturing geotextiles. Polypropylene geotextiles have been found to be durable in a wide range of chemical environments, (Bell, et. al., 1980; Haxo, 1978, 1983; Pucetas, et. al., 1991; Tisinger, et. al., 1989). Research has found both woven and nonwoven polypropylene geotextiles to be nonbiodegradable and resistant to commonly encountered soil-bound chemicals, landfill leachates, mildew, and insects.

Numerous laboratory test programs have subjected polypropylene to severe chemical environments such as solutions of organic solvents, oils, organic acids and inorganic acids. The laboratory tests are generally performed in accordance with ASTM D 543. "Standard Test Method for Resistance of Plastics to Chemical Reagents". These test programs have found polypropylene to exhibit superb chemical resistance.

In the ASTM D 543 procedure, specimens are immersed in a concentrated chemical solution at a specified temperature for a specified exposure period. This test method exposes the polypropylene to extremely harsh conditions which are considerably more severe than those encountered in most civil engineering applications.

The chemical compatibility of geotextiles with leachates is determined by EPA Test Method 9090 (EPA 9090), "Compatibility Test for Wastes and Membrane Liners". This is the laboratory method used in the geotextile test programs. Geotextile samples are immersed in a constant temperature leachate bath for four months. At the end of each month, samples of the fabric are removed and subjected to physical testing. Changes in properties may indicate chemically imposed degradation.

In all testing programs there was no indication of geotextile degradation due to exposure to landfill leachates. These results demonstrate the excellent chemical resistance of polypropylene geotextiles and their suitability for use in waste containment applications.

### **HAZARDOUS WASTE LEACHATE**

A laboratory testing program was performed to evaluate the chemical compatibility of polypropylene geotextiles with a hazardous waste leachate. The program included EPA 9090 testing of nonwoven specimens. The testing exposed the geotextile to leachate in both the laboratory and in a leachate collection sump at a hazardous waste landfill.

Test evaluation incorporated detailed microstructural analyses which are not typically incorporated into chemical resistance testing programs. Methods included differential scanning calorimetry, thermal gravimetric analysis, and infrared spectro-photometry. These analyses were performed to isolate any changes in the microstructure of the geotextile due to immersion in the leachate.

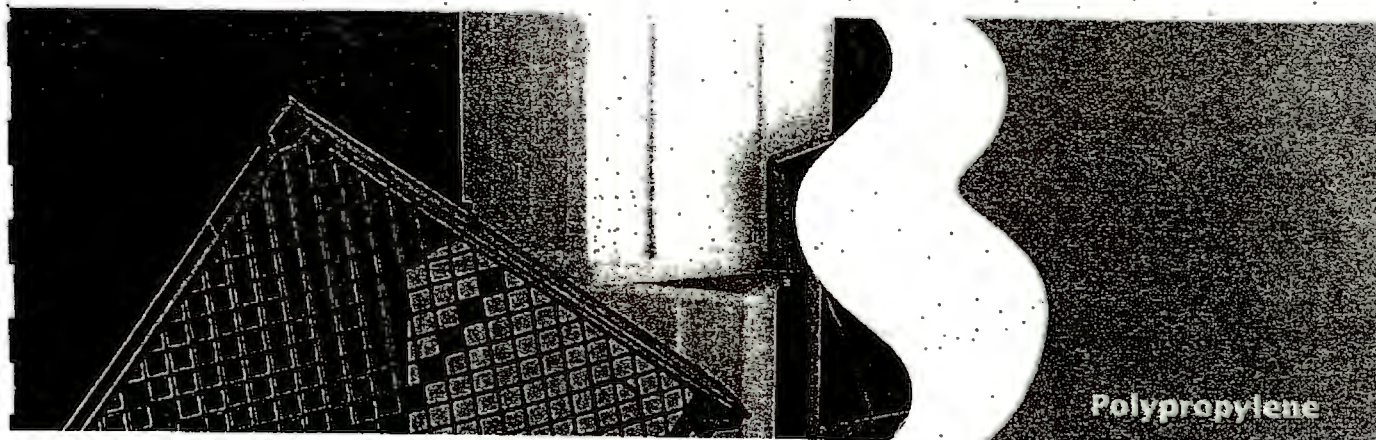
The results of this testing program found the geotextile microstructure remained intact, stable, and unchanged. These results demonstrate the superior chemical resistance of polypropylene geotextiles in hazardous waste applications.

### **MUNICIPAL WASTE LEACHATE**

The chemical resistance of polypropylene geotextiles to municipal solid waste leachate was evaluated in laboratory testing programs. The testing programs evaluated changes in physical properties of the specimens, including dimension, thickness, grab tensile strength and elongation, puncture resistance, burst strength, and tear strength. In all cases there were no measurable changes in physical properties of the specimens after exposure to leachate.

All SKAPS Nonwovens geotextiles are equally resistant to chemical degradation because all are manufactured using the same polymer and additives. This conclusion is supported by the test results which demonstrated no difference in chemical resistance for different types of SKAPS Nonwovens geotextiles. This technical note is considered to be applicable to all SKAPS Nonwovens geotextiles regardless of weight, thickness, or strength.





# Polypropylene Chemical Resistance



**Rating system**

This chart rates the chemical resistance of *Pro-fax* polypropylene resin according to the following code:

Note: The user is advised to make his or her own tests to determine the suitability of polypropylene in the particular environment.

**A = Negligible effect**

Should be suitable for all applications where these environmental conditions exist.

**B = Limited absorption or attack**

Should be suitable for most applications, but the user is advised to make his or her own tests to determine the suitability of polypropylene in the particular environment.

**C = Extensive absorption and/or rapid permeation**

Should be suitable for applications where only intermittent service is involved, or where the swelling produced has no detrimental effect on the part. The user should make his or her own tests to determine the suitability of polypropylene in the particular environment.

**D = Extensive attack**

The specimen dissolves or disintegrates. Polypropylene is not recommended.

Environment	Conc. %	Temp., °C		
		20	60	100
Acetic acid (glacial)	100	A	B	-
			(80°C)	
Acetic acid	50	A	A	-
			(80°C)	
Acetic acid	10	A	A	-
Acetone	100	A	A	-
Acetophenone	100	B	B	-
Acrylamide	100	A	A	-
(2% solution in H <sub>2</sub> O)			(80°C)	
Acrylic emulsions		A	A	-
Aluminum chloride		A	A	-
Aluminum fluoride		A	A	-
Aluminum sulfate		A	A	-
Alums (all types)		A	A	-
Ammonia (aqueous)	10	A	-	-
Ammonia gas (dry)		A	A	-
Ammonium carbonate	Satd.	A	A	-
Ammonium chloride	Satd.	A	A	-
Ammonium fluoride	20	A	A	-
Ammonium hydroxide	10	A	A	-
Ammonium metaphosphate	Satd.	A	A	-
Ammonium nitrate	Satd.	A	A	-
Ammonium persulfate	Satd.	A	A	-
Ammonium sulfate	Satd.	A	A	-
Ammonium sulfide	Satd.	A	A	-
Ammonium thiocyanate	Satd.	A	A	-
Amyl acetate	100	B	C	-
Amyl alcohol	100	A	B	-
Amyl chloride	100	C	C	-
Aniline	100	A	A	-
Anisole	100	B	B	-
Antimony chloride		A	A	-

Environment	Conc. %	Temp., °C		
		20	60	100
Aviation fuel (15/45 octane)	100	B	C	-
Aviation turbine fuel	100	B	C	-
Barium carbonate	Satd.	A	A	-
Barium chloride	Satd.	A	A	-
Barium hydroxide	Satd.	A	A	-
Barium sulfate	Satd.	A	A	-
Barium sulfide	Satd.	A	A	-
Beer		A	A	-
Benzene	100	B	C	C
Benzoic acid	A	A	-	-
Benzyl alcohol		A	A	-
			(80°C)	
Bismuth carbonate	Satd.	A	A	-
Borax		A	A	-
Boric acid		A	A	-
Brine	Satd.	A	A	-
Bromine liquid	100	D	-	-
Bromine water	(a)	C	-	-
Butyl acetate	100	C	C	-
Butyl alcohol	100	A	A	-
Calcium carbonate	Satd.	A	A	-
Calcium chlorate	Satd.	A	A	-
Calcium chloride	50	A	A	-
Calcium hydroxide		A	A	-
Calcium hypochlorite bleach	20%	A	B	-
Calcium nitrate		A	A	-
Calcium phosphate	50	A	-	-
Calcium sulfate		A	A	-
Calcium sulfite		A	A	-
Carbon dioxide (dry)		A	A	-
Carbon dioxide (wet)		A	A	-

Environment	Conc. %	Temp., °C		
		20	60	100
Carbon disulfide	100	A	A	-
Carbon monoxide		A	A	-
Carbon tetrachloride	100	C	C	-
Carbonic acid		A	A	-
Castor oil		A	A	-
Cetyl alcohol	100	A	-	-
Chlorine (gas)	100	D	D	D
Chlorobenzene	100	C	C	-
Chloroform	100	B	B	D
Chlorosulfonic acid	100	D	D	D
Chromic acid		A	A	-
Chromic acid	80 <sup>m</sup>	A	-	-
Chromic acid	50 <sup>m</sup>	A	-	-
Chromic acid	10 <sup>m</sup>	A	A	-
Chromic sulfuric acid		D	D	D
Cider		A	A	-
Citric acid		A	A	-
Copper chloride	Satd.	A	A	-
Copper cyanide	Satd.	A	A	-
Copper fluoride	Satd.	A	A	-
Copper nitrate	Satd.	A	A	-
Copper sulfate	Satd.	A	A	-
Cottonseed oil		A	A	-
Cuprous chloride	Satd.	A	A	-
Cyclohexanol	100	A	B	-
Cyclohexanone	100	B	C	-
Decalin	100	C	C	-
Detergents	2	A	A	A
Developers (photographic)		A	A	-
Dibutyl phthalate	100	A	B	D
Dichloroethylene	100	A	A	-
Diethanolamine	100	A	A	-
Dilsoodol phthalate	100	A	A	-
Emulsifiers		A	A	-
Ethanolamine	100	A	A	-
Ethyl acetate	100	B	B	-
Ethyl alcohol	95	A	A	-
			(80%)	-
Ethyl chloride	100	C	C	-
Ethylene dichloride	100	B	-	-
Ethylene glycol		A	A	-
Ethylene oxide	100	B	-	-
		(40%)	-	-
Ethyl ether	100	B	-	-
Fatty acids (C <sub>18</sub> )	100	A	A	-
Ferric chloride	Satd.	A	A	-
Ferric nitrate	Satd.	A	A	-
Ferric sulfate	Satd.	A	A	-

Environment	Conc. %	Temp., °C		
		20	60	100
Ferrous chloride	Satd.	A	A	-
Ferrous sulfate	Satd.	A	A	-
Fluoroboric acid		A	A	-
Formaldehyde	40	A	A	-
Formic acid	100	A	-	-
Formic acid	10	A	A	-
Fructose		A	A	-
Fruit juices		A	A	-
Guttal	100	C	C	-
Gas liquor		C	-	-
Gasoline	100	B	C	C
Gearbox oil	100	A	B	-
Glycerol		A	A	-
Glucose	20	A	A	-
Glycerol	100	A	A	A
Glycol		A	A	-
Glycane	100	A	B	-
Hydrobromic acid	50 <sup>m</sup>	A	A	-
Hydrochloric acid	30 <sup>m</sup>	A	B	D
Hydrochloric acid	20	A	A	-
Hydrochloric acid	10	A	(80%)	B
Hydrochloric acid		A	(60%)	-
Hydrochloric acid	2	A	A	A
50% HCl (aq)	(a)	B	D	-
Hydrofluoric acid	40	A	-	-
Hydrofluoric acid	50 <sup>m</sup>	A	A	-
Hydrogen chloride gas (dry)	100	A	A	-
Hydrogen peroxide	30	A	-	D
Hydrogen peroxide	10	A	B	-
Hydrogen peroxide	5	A	-	-
Hydrogen sulfide		A	A	-
Hydroquinone		A	A	-
Inks		A	A	-
Iodine tincture		A	-	-
Isooctane	100	C	C	-
Isopropyl alcohol	100	A	A	-
Ketones		A	-	-
Lactic acid	20	A	A	-
Lanolin	100	A	A	-
Lead acetate	Satd.	A	A	-
Linseed oil	100	A	A	-
Lubricating oil	100	A	B	-







Environment	Conc. %	Temp., °C		
		20	60	100

Sodium chlorate	100	A	A	-
		(80°C)		
Sodium chlorite	20	A	A	-
		(80°C)		
Sodium cyanide	Satd.	A	A	-
Sodium dichromate	Satd.	A	A	-
Sodium ferricyanide	Satd.	A	A	-
Sodium ferrocyanide	Satd.	A	A	-
Sodium fluoride	Satd.	A	A	-
Sodium hydroxide	50	A	A	-
Sodium hydroxide	10	A	A	-
Sodium hypochlorite	20	A	B	B
Sodium nitrate		A	A	-
Sodium nitrite		A	A	-
Sodium selenate		A	A	-
Sodium sulfate	Satd.	A	A	-
Sodium sulfite		A	A	-
Sodium sulfite	Satd.	A	A	-
Stannic chloride	Satd.	A	A	-
Stannous chloride	Satd.	A	A	-
Starch		A	A	-
Sugars and syrups		A	A	-
Sulfamic acid		A	A	-

Sulfates of [ Calcium and magnesium ]		A	A	-
	Satd.			

Sulfates of [ Potassium and sodium ]		A	A	-
	Satd.			

Sulfur		A	A	-
Sulfuric acid	50	C	C	-
Sulfuric acid	60	A	B	-
		(80°C)		
Sulfuric acid	50	A	B	-
Sulfuric acid	10	A	A	A
50-50 H <sub>2</sub> SO <sub>4</sub> /HNO <sub>3</sub>	10	C	D	-
		(80°C)		

Tallow		A	A	-
Tannic acid	10	A	A	-
Tartaric acid		A	A	-
Tetrahydrofuran	100	C	C	C
Tetralin	100	C	C	C
Toluene	100	C	C	-
Transformer oil	100	A	C	-
Tichloroacetic acid	10	A	A	-
Trichloroethylene	100	A	A	-
		(80°C)		

Environment	Conc. %	Temp., °C		
		20	60	100

Toluene	100	C	C	C
Urea		A	A	-
Uric acid		A	A	-
Water (distilled, soft, hard and vapor)		A	A	A
Water chlorine gas		-	D	-
		(70°C)		
Whiskey		A	A	A
White paraffin	100	A	B	-
		(80°C)		
White spirit	100	B	C	-
White wax		A	A	-
Xylene	100	C	C	C
Zinc		A	A	-

Zinc chloride	Satd.	A	A	-
Zinc oxide		A	A	-
Zinc sulfate	Satd.	A	A	-

(a) May produce cracking in material under stress

# SKAPS INDUSTRIES

## Nonwoven Division

### Material Safety Data Sheet (MSDS)

#### Section 1 – Product Identification

**Manufacturer's Name:**

SKAPS Industries, Nonwoven Division  
316 S. Holland Drive  
Pendergrass, GA 30567

**Emergency Phone Number:**

(706) 693-3440

**Date Prepared:**

October 21, 2003

#### Section 2 – Hazardous Ingredients

No hazardous components in geotextile fabrics at or above threshold limit values.

#### Section 3 – Physical/Chemical Characteristics

<b>Boiling Point:</b>	<b>Not Applicable</b>
<b>Vapor Pressure:</b>	<b>Not Applicable</b>
<b>Specific Gravity:</b>	<b>0.90 – 0.905</b>
<b>Melting Point:</b>	<b>120 – 170 Degrees (C)</b>
<b>Vapor Density:</b>	<b>Not Applicable</b>
<b>Evaporation Rate:</b>	<b>Not Applicable</b>
<b>Solubility in Water:</b>	<b>Not Applicable</b>
<b>Appearance and Odor:</b>	<b>Essentially Odorless</b>

#### Section 4 – Fire and Explosion Hazard Data

**Flash Point:** >600 Degrees (F)

**Extinguishing Media:** Dry Chemical, CO<sup>2</sup>, Foam, Water, Halon

**Special Fire Fighting Procedure:**

Avoid inhalation of vapors. Use self-contained breathing apparatus when fire fighting in confined areas.

**Unusual Fire and Explosion Hazards:**

Treat as a solid that can burn. Generally burns slowly with low smoke density and flaming drips. Burns with high smoke density under certain conditions.

#### Section 5 – Reactivity Data

Material is stable.

Hazardous polymerization will not occur.

#### Section 6 – Health Hazard Data

**Primary Routes of Entry:** Inhalation - Negligible  
Skin Contact - Negligible  
Indigestion - Not applicable

**Carcinogen:** Not a carcinogen

**Emergency and First Aid Procedure:**

**Eye Contact:** Flush with water.  
**Skin Contact:** Treat as thermal burn if contact with molten.

#### Section 7 – Precautions for Handling and Use

Practice reasonable care and caution in handling.

**Waste Disposal:** Place in appropriate disposal facility in compliance with local regulations.

**Storage:** In cool, dry location away from oxidizing materials.

#### Section 8 – Control Measures

Use NIOSH respirators when hot/molten product.

**Protective Gloves:** Required when handling molten product.

Practice general hygiene by washing hands and clothes after handling.



# GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: 053-9437

PROJECT TITLE: MCI/Site Remediation/NY

OWNER: Dupont

CONTRACTOR: Chenango Contracting

LOCATION: Lyndonville, NY

Fusion

TF - # = FUSION

DATE June 27, 2005

TX - # = EXTRUSION

SHEET NUMBER 1 of 1

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELD TECH.	TEMPERATURES				TEST RESULTS			PASS OR FAIL	MON.	REMARKS
				AMBIENT AIR TEMP.	PREHEAT OR MACHINE SPEED	EXTRUDER	NOZZLE OR WEDGE	INSIDE PEEL MODE STRENGTH	OUTSIDE PEEL MODE STRENGTH	SHEAR MODE STRENGTH			
TF-1	1400	702	KC	95°	350	Ⓢ	9.5	115   105   115 SE   SE   SE	120   120   115 SE   SE   SE	155   145 BRK   BRK	P	KSD	115   115   115   115 SE   SE   SE   SE
TF-2	1406	659	CS	95°	350	Ⓢ	9.5	110   120   115 SE   SE   SE	120   125   125 SE   SE   SE	148   165 BRK   BRK	P	KSD	115   115   115   115 SE   SE   SE   SE
										140			
										BRK			

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

# GEOMEMBRANE TRIAL SEAM LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

TF - # = FUSION  
 TX - # = EXTRUSION

DATE June 28, 2005  
 SHEET NUMBER \_\_\_\_\_

SAMPLE NUMBER	APPROX. TIME	WELDING MACHINE NUMBER	WELD TECH.	TEMPERATURES			NOZZLE OR WEDGE	TEST RESULTS			PASS OR FAIL	MON.	IN/out	REMARKS
				AMBIENT AIR TEMP.	PREHEAT OR MACHINE SPEED	EXTRUDER		INSIDE PEEL MODE STRENGTH	OUTSIDE PEEL MODE STRENGTH	SHEAR MODE STRENGTH				
TF-01	0810	659	CS	80°	350	/	9.5	120   120   120 SEI   SEI   SEI	120   120   115 SEI   SEI   SEI	145   150 BRK   BRK	PASS	MLB	130   120   120 SEI   SEI   SEI	
TF-02	0815	702	KC	80°	350	/	9.5	115   120   120 SEI   SEI   SEI	120   120   125 SEI   SEI   SEI	150   160 BRK   BRK	PASS	MLB	130   130   115   125 SEI   SEI   SEI   SEI	
TF-03	1240	659	CS	90°	350	/	9.5	110   120   125 SEI   SEI   SEI	115   115   125 SEI   SEI   SEI	135   130 BRK   BRK	PASS	MLB	115   110   115   115 SEI   SEI   SEI   SEI	
TF-04	1240	659	CS	90°	350	/	9.5	125   135   110 SEI   SEI   SEI	125   130   130 SEI   SEI   SEI	180   140 BRK   BRK	PASS	MLB	125   115   130   130 SEI   SEI   SEI   SEI	
TF-05	1245	702	KCS	90°	350	/	9.5	115   120   120 SEI   SEI   SEI	115   125   125 SEI   SEI   SEI	140   140 BRK   BRK	PASS	MLB	120   115   135   140 SEI   SEI   SEI   SEI	
TF-06	1245	702	KC	90°	350	/	9.5	130   130   125 SEI   SEI   SEI	130   135   130 SEI   SEI   SEI	140   140 BRK   BRK	PASS	MLB	130   130   135   135 SEI   SEI   SEI   SEI	

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TF01 → 03 SM/SM  
 TF04 SM/TEX  
 TF05 SM/SM  
 TF-06 Tex/TEX

GOLDER ASSOCIATES INC.



























# GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

GEOMEMBRANE: SECONDARY PRIMARY CLOSURE OTHER  
 SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):  
 REMARKS: \_\_\_\_\_

DATE: June 27, 05

TRANSPORT EQUIPMENT: RAM 3500 pick-up  
SGC EX200LB

SHEET NUMBER: 2 of 2

DESCRIPTION	PANEL NUMBER <u>P-01</u> <sup>300m</sup>	PANEL NUMBER <u>P-07</u>	PANEL NUMBER <u>P-08</u>
ROLL NUMBER	<u>AO-6705 (M09) 5</u>	<u>0103</u>	<u>0103</u>
DEPLOYED LENGTH	<u>481'</u>	<u>57'</u>	<u>56'</u>
AMBIENT AIR TEMP.	<u>95°F</u>	<u>95°F</u>	<u>95°F</u>
VISUAL OBSERVATION	<u>OK</u>	<u>OK</u>	<u>OK</u>
OBSERVED OVERLAP	<u>6"</u>	<u>6"</u>	<u>6"</u>
MONITOR	<u>KSW</u>	<u>KSW</u>	<u>KSW</u>
REMARKS		<u>1700</u>	<u>1707</u>
SHEET THICKNESS	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL
AVERAGE			

DESCRIPTION	PANEL NUMBER <u>P-09</u>	PANEL NUMBER <u>P-10</u>	PANEL NUMBER <u>P-11</u>
ROLL NUMBER	<u>0102</u>	<u>0102</u>	<u>0102</u>
DEPLOYED LENGTH	<u>60'</u>	<u>42'</u>	<u>40' x 4'</u>
AMBIENT AIR TEMP.	<u>95°</u>	<u>95°</u>	<u>95</u>
VISUAL OBSERVATION	<u>OK</u>	<u>OK</u>	<u>OK</u>
OBSERVED OVERLAP	<u>6"</u>	<u>6"</u>	<u>6"</u>
MONITOR	<u>KSW</u>	<u>KSW</u>	<u>KSW</u>
REMARKS	<u>1720</u>	<u>1725 hrs</u>	
SHEET THICKNESS	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL
AVERAGE			

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

# GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

GEOMEMBRANE: SECONDARY PRIMARY CLOSURE OTHER  
 SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):  
 REMARKS: \_\_\_\_\_

DATE: June 28, 05

TRANSPORT EQUIPMENT Dodge Ram 3500 TRUCK

SHEET NUMBER: 1 of 2

DESCRIPTION	PANEL NUMBER <u>P-12</u>	PANEL NUMBER <u>P-13</u>	PANEL NUMBER <u>P-<sup>14</sup><del>13</del></u>
ROLL NUMBER	<u>0102</u>	<u>0101</u>	<u>0101</u>
DEPLOYED LENGTH	<u>363'</u>	<u>365'</u>	<u>23x4</u>
AMBIENT AIR TEMP.	<u>80°</u>	<u>83°F</u>	<u>84°</u>
VISUAL OBSERVATION	<u>OK</u>	<u>OK</u>	<u>OK</u>
OBSERVED OVERLAP	<u>6"</u>	<u>6"</u>	<u>6"</u>
MONITOR	<u>KSW</u>	<u>KSW</u>	<u>KSW</u>
REMARKS	<u>0815</u>	<u>0845 hrs</u>	<u>0850 hrs</u>
SHEET THICKNESS	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL
AVERAGE			

DESCRIPTION	PANEL NUMBER <u>P-15</u>	PANEL NUMBER <u>P-16</u>	PANEL NUMBER <u>P-17</u>
ROLL NUMBER	<u>0101</u>	<u>0101</u>	<u><del>0101</del></u>
DEPLOYED LENGTH	<u>23x13</u>	<u>9x22</u>	<u>11x7</u>
AMBIENT AIR TEMP.	<u>85°F</u>	<u>85°F</u>	<u>85°F</u>
VISUAL OBSERVATION	<u>OK</u>	<u>OK</u>	<u>OK</u>
OBSERVED OVERLAP	<u>6"</u>	<u>6"</u>	<u>6"</u>
MONITOR	<u>KSW</u>	<u>KSW</u>	<u>KSW</u>
REMARKS	<u>0855 hrs</u>	<u>0859 hrs</u>	<u>0910 hrs</u>
SHEET THICKNESS	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL
AVERAGE			

$363 \times 23 = 8349$   
 $365 \times 23 = 8395$   
 $23 \times 4 = 92$   
 $23 \times 13 = 299$   
 $22 \times 9 = 198$   
 $11 \times 7 = 77$

$123 \times 23 = 2829$

20239 avg @ 10AM

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

GEOMEMBRANE: SECONDARY PRIMARY CLOSURE OTHER  
 SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):  
 REMARKS: \_\_\_\_\_

DATE: June 28

TRANSPORT EQUIPMENT Ram 3500 pick up

SHEET NUMBER: 2 of 3

DESCRIPTION	PANEL NUMBER <u>P-18</u>	PANEL NUMBER <u>P-19</u>	PANEL NUMBER <u>P-20</u>
ROLL NUMBER	<u>0101</u>	<u>2169</u>	<u>2169</u>
DEPLOYED LENGTH	<u>123'</u>	<u>188'</u>	<u>79'</u>
AMBIENT AIR TEMP.	<u>89°F</u>	<u>90°</u>	<u>90°</u>
VISUAL OBSERVATION	<u>OK</u>	<u>OK</u>	<u>OK</u>
OBSERVED OVERLAP	<u>6"</u>	<u>6"</u>	<u>6"</u>
MONITOR	<u>KSW</u>	<u>KSW</u>	<u>KSW</u>
REMARKS	<u>0930 hrs</u>	<u>TEXTURED</u>	<u>Textured (1015)</u>
SHEET THICKNESS	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL
AVERAGE			

DESCRIPTION	PANEL NUMBER <u>P-21</u>	PANEL NUMBER <u>P-22</u>	PANEL NUMBER <u>P-23</u>
ROLL NUMBER	<u>2169</u>	<u>2169</u>	<u>2169</u>
DEPLOYED LENGTH	<u>140</u>	<u>11x61</u>	<u>11x60</u>
AMBIENT AIR TEMP.	<u>92°</u>	<u>90°</u>	<u>90°</u>
VISUAL OBSERVATION	<u>OK</u>	<u>OK</u>	<u>OK</u>
OBSERVED OVERLAP	<u>6"</u>	<u>6"</u>	<u>6"</u>
MONITOR	<u>KSW</u>	<u>KSW</u>	<u>KSW</u>
REMARKS	<u>Textured (1015)</u>	<u>Textured (1015)</u>	<u>Textured</u>
SHEET THICKNESS	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL
AVERAGE			

$188 \times 23$   
 $79 \times 23$   
 $140 \times 23$   
 $11 \times 61$   
 $11 \times 60$   
 -----  
 9361  
 671  
 660  
 10692  
 + 20239  
 -----  
 30,931 Today @ 11am

REVIEWED BY \_\_\_\_\_ DATE: \_\_\_\_\_

GOLDER ASSOCIATES INC.

q:/tdfms/geosyn/g11.xls



# GEOMEMBRANE PANEL DEPLOYMENT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

GEOMEMBRANE: SECONDARY PRIMARY CLOSURE OTHER  
 SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):  
 REMARKS: \_\_\_\_\_

DATE: June 28, 2005

TRANSPORT EQUIPMENT: Ram 3500 TRUCK

SHEET NUMBER: 2 of 3

DESCRIPTION	PANEL NUMBER <u>P-24</u>	PANEL NUMBER <u>P-25</u>	PANEL NUMBER <u>P-26</u>
ROLL NUMBER			
DEPLOYED LENGTH	<u>104 x 12</u>	<u>79 x 11</u>	<u>283</u>
AMBIENT AIR TEMP.	<u>97°F</u>	<u>97°F</u>	<u>97°F</u>
VISUAL OBSERVATION	<u>OK</u>	<u>OK</u>	<u>OK</u>
OBSERVED OVERLAP	<u>6"</u>	<u>6"</u>	<u>6"</u>
MONITOR	<u>KSW</u>	<u>KSW</u>	<u>KSW</u>
REMARKS	<u>smooth</u>	<u>smooth</u>	<u>smooth</u>
SHEET THICKNESS	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL
	<u>(1248)</u>	<u>(869)</u>	
AVERAGE			

30,931 ft<sup>2</sup>

ACES NEXT 3

DESCRIPTION	PANEL NUMBER <u>P-27</u>	PANEL NUMBER <u>P-28</u>	PANEL NUMBER <u>P-29</u>
ROLL NUMBER	<u>0100</u>	<u>0100</u>	<u>0100</u>
DEPLOYED LENGTH	<u>10 x 23</u>	<u>84 x 25</u>	<u>25 x 24</u>
AMBIENT AIR TEMP.	<u>97°F</u>	<u>97°F</u>	<u>97°F</u>
VISUAL OBSERVATION	<u>OK</u>	<u>OK</u>	<u>OK</u>
OBSERVED OVERLAP	<u>6"</u>	<u>6"</u>	<u>6"</u>
MONITOR	<u>KSW</u>	<u>KSW</u>	<u>KSW</u>
REMARKS	<u>smooth</u>	<u>smooth</u>	<u>smooth</u>
SHEET THICKNESS	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL	LEAD L SIDE R SIDE TRAIL
	<u>236</u>		
AVERAGE			

30,931 ft<sup>2</sup>

1248  
869  
6509

39,563

6/28/05

+ 30,000 =  
6/27

69,563

TOTAL  
GOLDER ASSOCIATES INC.

REVIEWED BY \_\_\_\_\_

DATE \_\_\_\_\_

230  
858  
850  
1930

= 71,500 ft<sup>2</sup>

# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

FUSION  
 EXTRUSION

### PASSING TRIAL SEAMS

NO.	TIME	TECH ID
FX-02	1405	C

MACHINE # 659

DESTRUCTIVE LENGTH CARRY-OVER FROM PREVIOUS LOG 187

DATE June 27

SHEET NUMBER 1 of 1

SEAM NUMBER	SEAM SECTION* START POINT    FINISH POINT		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE	
							DIGITAL SET	INDICATOR						TEST DATE	MON.
							WEDGE OR BARREL NOZZLE	WEDGE OR BARREL NOZZLE							
1	P-01   P-03	NEOS - <del>SEOS</del>	1605	95°	CS	350	9.5	-	297/128	(128)	DF-01	K810			
2	P-02   P-07	NEOS - SEOS	1712	95°	CS	350	9.5	-	83	151	-	K820			
3	P-02   P-07	NEOS - SEOS	1720	95°	CS	350	9.5	-	54	20.5	-	K860			
4	P-02   P-07	WEDO - SEOS	1725	95°	CS	350	9.5	-	23	228	-	K820			
5	P-08   P-09	NEOS - SEOS	1737	95	CS	350	9.5	-	60	(298)	-	K800			
6	P-09   P-07	NEOS - SEOS	1740	95	CS	350	9.5	-	55	343	-	K800			
7	/	-													
8	/	-													
9	/	-													
10	/	-													
11	/	-													
12	/	-													
13	/	-													
14	/	-													
15	/	-													
16	/	-													
17	/	-													

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
DESTRUCTIVE LENGTH CARRY-OVER

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY

Total for this machine 640

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

Total for Both = 1110

GOLDER ASSOCIATES INC.



# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-0437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

### PASSING TRIAL SEAMS



FUSION

NO.                      TIME                      TECH ID

TF-01	14:00	KC



EXTRUSION

MACHINE # 702

DESTRUCTIVE LENGTH CARRY-OVER  
FROM PREVIOUS LOG \_\_\_\_\_

DATE 6/27/05

SHEET NUMBER one 1

SEAM NUMBER	SEAM SECTION*		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE		
	START POINT	FINISH POINT					DIGITAL SET	INDICATOR						TEST DATE	MON.	
	BARREL NOZZLE	BARREL NOZZLE														
1	P-01	P-02	1545	95°	KC	350	9.5-	-	55'	155'	-					
2	P-04	P-05	1625	95°	KC	350	9.5-	28' - 28'	78'	78'	-					
3	P-01	P-04	1630	95°	KC	350	9.5-	-	66'	144'	-					
4	P-01	P-05	1640	95°	KC	350	9.5-	-	130'	274'	DF-02					
5	P-04	P-06	1703	94°	KC	350	9.5-	350-	66'	92'	-					
6	P-05	P-06	1711	94°	KC	350	9.5-	346-	130'	222'	-					
7	/	-														
8	/	-														
9	/	-														
10	/	-														
11	/	-														
12	/	-														
13	/	-														
14	/	-														
15	/	-														
16	/	-														
17	/	-														

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
DESTRUCTIVE LENGTH CARRY-OVER

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY

$$\begin{array}{r} 66 \\ 78 \\ \hline 144 \\ 130 \\ \hline 274 \end{array}$$

Total = 470 Fusion

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-8437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chanango Contracting

FUSION  
 EXTRUSION

### PASSING TRIAL SEAMS

NO.	TIME	TECH ID
TF-01	0810	CS

MACHINE # 659

DESTRUCTIVE LENGTH CARRY-OVER FROM PREVIOUS LOG 343'

DATE 6/23/05

SHEET NUMBER \_\_\_\_\_

SEAM NUMBER	SEAM SECTION* START POINT FINISH POINT	APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE	
						DIGITAL SET	INDIGATOR						TEST DATE	MON.
						WEDGE OR BARREL NOZZLE	WEDGE OR BARREL NOZZLE							
1 P09 110	WEOS - SEOS	0900	80	CS	9.5	350	350	10'	353'		MLB			
2 <del>P09 112</del>	<del>WEOS - SEOS</del>		<del>82</del>	<del>CS</del>	<del>9.5</del>	<del>350</del>	<del>350</del>							
3 P08 111	WEOS - SEOS	0907	83	CS	9.5	350	347	42'	395'		MLB			
4 P12 114	WEOS - SEOS	0920	83	CS	9.5	350	351	22'	417'		MLB			
5 P14 117	WEOS - SEOS	0927	83	CS	9.5	350	350	6'	423'		MLB			
6 P08 117	WEOS - SEOS	0935	83	CS	9.5	350	351	11'	434'		MLB			
7 P09 114	WEOS - SEOS	0937	84	CS	9.5	350	350	4'	438'		MLB			
8 P09 112	WEOS - SEOS	0938	84	CS	9.5	350	349	50'	418'/10'	DF-4	MLB			
9 P10 112	WEOS - SEOS	0944	84	CS	9.5	350	348	14'	54'		MLB			
10 P13 115	WEOS - SEOS	1005	85	CS	9.5	350	351	12'	66'		MLB			
11 P15 118	WEOS - SEOS	1015	85	CS	9.5	350	350	29'	89'		MLB			
12 P18 118	WEOS - SEOS	1020	85	CS	9.5	350	351	10'	99'		MLB	To be Capped		
13 P15 116	WEOS - SEOS	1022	85	CS	9.5	350	350	12'	111'		MLB	To be Capped		
14 P13 118	WEOS - SEOS	1039	86	CS	9.5	350	351	102'	213'		MLB			
15 P18 124	WEOS - SEOS	1125	87	CS	9.5	350	353	94'	307'		MLB			
16 P18 125	WEOS - SEOS	1136	87	CS	9.5	350	350	29'	336'		MLB			
17 P18 126	WEOS - SEOS	1145	87	CS	9.5	350	349	22'	358'		MLB			

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
 DESTRUCTIVE LENGTH CARRY-OVER 358'

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

FUSION  
 EXTRUSION

### PASSING TRIAL SEAMS

NO.	TIME	TECH ID
TF-01	8 <sup>10</sup>	CS
TF-03	1240	CS
TF-04	1240	CS

MACHINE # 659

DESTRUCTIVE LENGTH CARRY-OVER FROM PREVIOUS LOG 358'

DATE 6/20/05

SHEET NUMBER \_\_\_\_\_

SEAM NUMBER	SEAM SECTION* START POINT    FINISH POINT		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE	
							DIGITAL SET	INDICATOR						TEST DATE	MON.
							WEDGE OR BARREL NOZZLE	WEDGE OR BARREL NOZZLE							
1	P13	1 26	WEOS - EEOB	1325	90°	CS	9.5	350 -	351 -	283	478/163'	DF-6	MLA		
2	P23	1 26	WEOS - EEOB	1402	90°	CS	9.5	350 -	348 -	60'	223		MLA		
3	P22	1 26	WEOS - EEOB	1410	90°	CS	9.5	350 -	350 -	60'	283'		MLA		
4	P21	1 26	WEOS - EEOB	1432	90°	CS	9.5	350 -	349 -	112'	385/12'	DF-8	MLA		
5	P28	1 29	WEOS - EEOB	1452	90°	CS	9.5	350 -	352 -	35'	47'		MLA		
6	P21	1 28	WEOS - EEOB	1505	90°	CS	9.5	350 -	349 -	22'	69'		MLA		
7	P21	1 29	WEOS - EEOB	1508	90°	CS	9.5	350 -	351 -	16'	85'		MLA		
8	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
DESTRUCTIVE LENGTH CARRY-OVER

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_







# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

FUSION  
 EXTRUSION  
 MACHINE # 250

### PASSING TRIAL SEAMS

NO.	TIME	TECH ID
E-01	1600hrs	KC

DESTRUCTIVE LENGTH CARRY-OVER FROM PREVIOUS LOG beginning

DATE June 28, 2005

SHEET NUMBER 1 of 1

EXTRUSIVE SEAMS - SEAM NUMBER	LOCATION SEAM SECTION*		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE TEST	
	START POINT	FINISH POINT					WEDGE OR BARREL NOZZLE	INDICATOR WEDGE OR BARREL NOZZLE						DATE	MON.
1	12M	-	1610	95°	KC	450	-	450	8'	0	-	KSD		6/29	KSD
2	12K	P7 - P8	1617	95°	KC	450	-	450	5'	13'	-	KSD		6/29	KSD
3	12N	P11 - P8	1619	95°	KC	450	-	450	8	21'	-	KSD		6/29	KSD
4	11H	P8 - P11	1624	95°	KC	450	-	450	9	30'	-	KSD		6/29	KSD
5	11J	P15 - P9	1630	94°	KC	450	-	450	12	42'	-	KSD		6/29	KSD
6	1B3	P14 - P17	1635	94°	KC	450	-	450	20	62'	-	KSD		6/29	KSD
7	11F	P2, 7-8, 9	1639	94°	KC	450	-	450	8	70'	-	KSD		6/29	KSD
8	11F	P1, 2, 7	1643	94°	KC	450	-	450	8	78'	-	KSD		6/29	KSD
9	13C	P7 - 6	1651	94°	KC	450	-	450	16	94	-	KSD		6/29	KSD
10	13D	P7 - P1	1658	93°	KC	450	-	450	4	98	-	KSD		6/29	KSD
11	3E1	P7 -	1707	93°	KC	450	-	450	4	102	-	KSD		6/29	KSD
12	3F1	P1 -	1709	93°	KC	450	-	450	6	108	-	KSD		6/29	KSD
13	3G1	P1 -	1715	93°	KC	450	-	450	6	114	-	KSD		6/29	KSD
14	J1	-													
15	I	-													
16	I	-													
17	I	-													

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
DESTRUCTIVE LENGTH CARRY-OVER

114 Total

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

FUSION  
 **EXTRUSION**  
 MACHINE # 250

PASSING TRIAL SEAMS		
NO.	TIME	TECH ID
E-01	0735	KC
E-02	1235	KC

DESTRUCTIVE LENGTH CARRY-OVER FROM PREVIOUS LOG 114

DATE June 29, 05

SHEET NUMBER 1 of 2

Repair/boof seams SEAM NUMBER	SEAM SECTION*		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE TEST	
	START POINT	FINISH POINT					DIGITAL SET	INDICATOR						DATE	MON.
	WEDGE OR BARREL NOZZLE	WEDGE OR BARREL NOZZLE													
1	13A	P1 - P4	1000	85°	KC	450	-	450	11'	125'		KSW		6/29	KSW
2	13H	P1 -	1310	89°	KC		-	-	6'	131'		KSW		6/29	KSW
3	11D	P1, 4, 5	1317	89°	KC		-	-	8'	139'		KSW		6/29	KSW
4	11C	P4, 5, 107	1315	89°	KC		-	-	8'	147'		KSW		6/29	KSW
5	11A	P1 - P3	1320	89°	KC		-	-	12'	159'		KSW		6/29	KSW
6	121	P27 - P5	1334	89°	KC		-	-	16'	175'		KSW		6/29	KSW
7	11B	P1 - P3	1330	89°	KC		-	-	16'	191'		KSW		6/29	KSW
8	12H	P5, 6, 27	1342	90°	KC		-	-	12'	203'		KSW		6/29	KSW
9	13I	P3 -	1619	90°	KC		-	-	17'	220'		KSW		6/29	KSW
10	11G	P6 - P12	1358	90°	KC		-	-	13'	233'		KSW		6/29	KSW
11	13J	P1 - P	1000	90°	KC		-	-	7'	240'		KSW		6/29	KSW
12	13K	R1 - P4	1100	90°	KC		-	-	7'	247'		KSW		6/29	KSW
13	12X	P6 -	1500	90°	KC		-	-	21'	268'		KSW		6/29	KSW
14	12S	P6 - P12	1520	90°	KC		-	-	18'	286'		KSW		6/29	KSW
15	12T	P12 -	1530	90°	KC		-	-	38'	324'		KSW		6/29	KSW
16	13M	P4 - P6	1620	90°	KC		-	-	15'	339'		KSW		6/29	KSW
17	13N	P12 -	1645	90°	KC		-	-	10'	349'		KSW		6/29	KSW

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS).  
 A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
 DESTRUCTIVE LENGTH CARRY-OVER

349

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY

14  
17  
38

14-17 CAP

14-23

12-13  
 DF-WEOS  
 3:00 / 30  
 6:28-05 / 20  
 Done on 6/29/05

GOLDER ASSOCIATES INC.

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-8437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MC/ Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

FUSION  
 EXTRUSION  
 MACHINE # 250

PASSING TRIAL SEAMS		
NO.	TIME	TECH ID
<del>E-02</del>		
E-02	12:35	KC

DESTRUCTIVE LENGTH CARRY-OVER  
 FROM PREVIOUS LOG 350

DATE June 29, 05  
 SHEET NUMBER 2 of 2

SEAM NUMBER	SEAM SECTION*		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE	
	START POINT	FINISH POINT					DIGITAL SET	INDICATOR						TEST DATE	MON.
	WEDGE OR BARREL NOZZLE	WEDGE OR BARREL NOZZLE													
1	3P	P12	1650	92°	KC	450	-	450	10'	360'		KSW			
2	13S	P12	1653	92°	KC	450	-	450	4'	364'		KSW			
3	13R	P10-12	1656	92°	KC	450	-	450	7'	371'		KSW			
4	13S	P10-12	1659	92°	KC	450	-	450	4'	375'		KSW			
5	13T	P10	1710	92°	KC	450	-	450	5'	400'		KSW			
6	13W	P9	1730	92°	KC	450	-	450	10'	410'		KSW			
7	13X	P9	1735	92°	KC	450	-	450	10'	420'		KSW			
8	14A	P7-P9	1737	92°	KC	450	-	450	10'	430'		KSW			
9	2D12E	P19,25,20	1750	92°	KC	450	-	450	39'	459'	DX-01	KSW			
10	1	-23													
11	14B	PA/20/23/25	18"	92°	KL	450	-	450	14'	453'		KSW			
12	1														
13	1														
14	1														
15	1														
16	1														
17	1														

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS),  
 A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
 DESTRUCTIVE LENGTH CARRY-OVER

\*\* COLUMNS TO BE USED  
 BY THE DATA REVIEWER ONLY

13  
 3  
 39

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-8437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MC/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

		PASSING TRIAL SEAMS		
		NO.	TIME	TECH ID
<input type="checkbox"/>	FUSION:	<u>E-01</u>	<u>0742</u>	<u>KC</u>
<input checked="" type="checkbox"/>	EXTRUSION			

DATE June 30

MACHINE # \_\_\_\_\_

DESTRUCTIVE LENGTH CARRY-OVER FROM PREVIOUS LOG 14'

SHEET NUMBER 1 of 2

SEAM NUMBER	SEAM SECTION*		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE	
	START POINT	FINISH POINT					DIGITAL SET	INDICATOR						TEST DATE	MON.
	WEDGE OR BARREL NOZZLE	WEDGE OR BARREL NOZZLE													
1	1 2N	P10, 9-12	0806	75°	KC		450 -	450 -	35'	49'	DX-01	KSW		6/30	KSD
2	1 2M	P10, 9-12	0806	75°	KC		450 -	450 -		49'		KSW		6/30	KSD
3	1 1K	P12, 14, 13	0825	76°	KC		450 -	450 -	6'	55'		KSW		6/30	KSD
4	1 4C	P13 -	0840	78°	KC		450 -	450 -	6'	61'		KSW		6/30	KSD
5	1 4D	P13 -	0840	28°	KC		450 -	450 -	20'	81'		KSW		6/30	KSD
6	1 1P	P12, 15, 18	0850	78°	KC		450 -	450 -	8'	89'		KSW		6/30	KSD
7	1 1Q	P15, 16, 18	0900	79°	KC		450 -	450 -	40'	129'		KSW		6/30	KSD
8	1 4E	P18 -	0910	80°	KC		450 -	450 -	7'	136'		KSW		6/30	KSD
9	1 4F	P19 -	0935	80°	KC		450 -	450 -	18'	154'		KSW		6/30	KSD
10	1 4G	P21, 48E	955	80°	KC		450 -	450 -	12'	166'		KSW		6/30	KSD
11	1 1S	P24 - P25	1015	81°	KC		450 -	450 -	5'	171'		KSW		6/30	KSD
12	1 1X	P24 - P25	1008	81°	KC		450 -	450 -	5'	176'		KSW		6/30	KSD
13	1 1W	P18, 25, 26	1020	81°	KC		450 -	450 -	12'	198'		KSW		6/30	KSD
14	1 1T	P18 - 26	1035	81°	KC		450 -	450 -	32'	230'		KSW		6/30	KSD
15	1 4H	P-12 -	1055	81°	KC		450 -	450 -	15'	245'		KSW		6/30	KSD
16	<del>1 4I, 4J, 4K</del>	<del>P22 - 23</del>	done	6/29/05											
17	1 2G	P22, 23, 21	1103	81°	KC		450 -	450 -	5'	250'		KSW		6/30	KSD

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EDS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
 DESTRUCTIVE LENGTH CARRY-OVER 250'

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY

AIR T

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

GOLDER ASSOCIATES INC.

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Phurst

334-9200

9772341

# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Cheango Contracting

### PASSING TRIAL SEAMS

FUSION  
 EXTRUSION

NO.	TIME	TECH ID
E-01	0743 hrs	KC
E-02	1243 hrs	KC

MACHINE # #850

DESTRUCTIVE LENGTH CARRY-OVER FROM PREVIOUS LOG 250

DATE June 30

SHEET NUMBER 2 of 2

SEAM NUMBER	SEAM SECTION*		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE	
	START POINT	FINISH POINT					DIGITAL SET	INDICATOR						TEST DATE	MON.
1	2F	P22-23-26	1110	82°	KC	450	-	450	5'	250+5		KSW		6/30	KSW
2	2D	P20-21-22	1123	82°	KC	450	-	450	5'	260		KSW		6/30	KSW
3	12A	P13-P26	1116	82°	KC	450	-	450	14'	274		KSW		6/30	KSW
4	12R	P21-P26	1127	83°	KC	450	-	450	85	309		KSW		6/30	KSW
5	12R	P12-P13	1138	84°	KC	450	-	450	12'	321		KSW		6/30	KSW
6	14T	P13-15-18	1325	84°	KC	450	-	450	7'	328		KSW		6/30	KSW
7	14K	P12-13-15	1329	84°	KC	450	-	450	2'	330		KSW		6/30	KSW
8	12B	P13-P26	1335	84°	KC	450	-	450	7'	337		KSW		6/30	KSW
9	(DF-02) 12J	P21-P26	1345	84°	KC	450	-	450	9'	346'		KSW		6/30	KSW
10	14N	P21-P26	1410										(same)		
11	14M	P21-P26	1350	84°	KC	450	-	450	35'	381'		KSW		6/30	KSW
12	14P	P21-P26	1410	84°	KC	450	-	450	30'	410'		KSW		6/30	KSW
13	14Q	P21-P26	1417	84°	KC	450	-	450	8	418' → DX-02		KSW		6/30	KSW
14	12B	P28-21-29	1418	84°	KC	450	-	450	8	426'	8	KSW		6/30	KSW
15	41M	P21-P26	1600	84°	KC	450	-	450	11'	437'	19	KSW		6/30	KSW
16	4A	P28-P29	1625	85°	KC	450	-	450	32'	469'	41'				
17	14S	P21-P28	1638	85°	KC	450	-	450	6	47'					

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS).  
 A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
 DESTRUCTIVE LENGTH CARRY-OVER

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY

47'

FINISHED seaming

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

41



# GEOMEMBRANE SEAM LOG

PROJECT NUMBER: 013-4528  
 OWNER: BFI WASTE SYSTEMS OF NORTH AMERICA, INC.  
 LOCATION: SAN PATRICIO COUNTY

PROJECT TITLE: BFI/SINTON, TRENCH 19/TX  
 CONTRACTOR: \_\_\_\_\_

### PASSING TRIAL SEAMS

FUSION  
 EXTRUSION

NO.	TIME	TECH ID
TX-01	0750	KC
TX-02	1140	CS
TX-02	7/6/05	ST
TX-04	7/6/05	ST

DESTRUCTIVE LENGTH CARRY-OVER  
 FROM PREVIOUS LOG \_\_\_\_\_

DATE July 1, 05  
*July 1, 6<sup>th</sup>*

MACHINE # 250

SHEET NUMBER 1 of 1

SEAM NUMBER	SEAM SECTION* START POINT FINISH POINT		APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MAGL. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED	LENGTH FROM PREVIOUS DESTR.	DESTR. NUMBER	MON.	REMARKS	NON-DESTRUCTIVE	
							DIGITAL SET	INDICATOR						TEST DATE	MON.
							WEDGE OR BARREL NOZZLE	WEDGE OR BARREL NOZZLE							
1	14T	P13 - R6	0837	88°	KC	450	-	450-	18'		DX-02	KRW		7/1	KRW
2	14W	P21 - EXT	0845	88°	KC	450	-	450-	15'					7/1	KRW
3	15A	P24 - West	1054	90°	KC	450	-	450-	14'					7/1	KRW
4	15B	P18 - West	1045	90°	KC	450	-	450-	9'					7/1	KRW
5	15C	P19 - West	1100	90°	KC	450	-	450-	15'					7/1	KRW
6	15D	P29 - East		90°	CS	450	-	450-	32'					7/1	KRW
7	15E	P21 - East	1355	90	CS	450	-	450-	15'					7/1	KRW
8	15F	P1/P3	0700	85°	ST	450	-	450-	4'					7/5	KRW
9	5C, H, I	P2 - P8	0947	72°	ST	450	-	450-	32'					7/6	KRW
10	5J	Northwest	1400	82°	ST	450	-	450-	10'					7/6	KRW
11	5K	corner gap	1410	82°	ST	450	-	450-	10'					7/6	KRW
12	5M	vent post	1420	85°	ST	450	-	450-	8'					7/6	KRW
13	5N	South gate post	1430	85°	ST	450	-	450-	8'					7/6	KRW
14	5P	North gate	1444	85°	ST	450	-	450-	10'					7/6	KRW
15	5Q	North gate	1540	85°	ST	450	-	450-	10'						
16	5R	NE gate	1605	85°	ST	450	-	450-	10'						
17															

\* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOR),  
 A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM.

DAILY TOTAL  
 DESTRUCTIVE LENGTH CARRY-OVER \_\_\_\_\_

\*\* COLUMNS TO BE USED  
 BY THE DATA REVIEWER ONLY

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

DATE: June 28, 2005  
 SHEET NUMBER: 1 of 3

SEAM NUMBER	SEAM SECTION*		PRESS. GAUGE NUMBER	TECH ID	TIME		PRESSURE		OBS. TEST	RESULTS PASS/ FAIL	SEAM COMPLETE			REMARKS
	FROM	TO			START	FINISH	INITIAL	FINAL			NO	YES	MON.	
1	P-01	IP-02	WEOS - EEOS		↑	1250 : 30	1256 : 30	Yes	PASS		✓	KSW		
2	P-02	IP-08	WEOS - EEOS			1254 : 30	1259 : 27	Yes	PASS		✓	KSW		
3	P-08	IP-11	WEOS - EEOS			1255 : 30	1300 : 29	Yes	PASS		✓	KSW		
4	P-02	IP-07	NEOS - SEOS			1303 : 30	1310 : 29	Yes	PASS		✓	KSW		
5	P-08	IP-09	NEOS - EEOS	Triad 1		1305 : 30	1310 : 28	Yes	<del>PASS</del>		✓	KSW		
6	P-08	IP-09	NEOS - SEOS	Triad 2		1312 : 30	1317 : 27	Yes	PASS	YES	✓	KSW		
7	P-08	IP-17	WEOS - EEOS			1310 : 30	1315 : 30	Yes	PASS		✓	KSW		
8	P-07	IP-09	WEOS - EEOS			1322 : 30	1328 : 30	Yes	PASS		✓	KSW		
9	P-09	IP-14	WEOS - EEOS			1323 : 30	1329 : 30	Yes	PASS		✓	KSW		
10	P-07	IP-07	WEOS - EEOS			1320 : 30	1326 : 27	Yes	PASS		✓	KSW		
11	P-09	IP-12	WEOS - DF-04			1331 : 35	1336 : 34	Yes	PASS		✓	KSW		
12	P-12	IP-14	WEOS - NEOS			1335 : 30	1341 : 30	Yes	PASS		✓	KSW		
13	P-09	IP-12	DF-04 - EEOS			1340 : 30	1345 : 21	Yes	<del>PASS</del>	CAP	✓	KSW		
14	P-09	IP-10	WEOS - SEOS			1345 : 30	1350 : 29	Yes	PASS		✓	KSW		
15	P-10	IP-12	WEOS - EEOS			1345 : 30	1350 : 30	Yes	PASS		✓	KSW		
16	P-01	IP-03	WEOS - DF-01			1405 : 34	1410 : 34	Yes	PASS		✓	KSW		
17	P-01	IP-03	DF-01 - EEOS			1415 : 30	1420 : 30	Yes	PASS		✓	KSW		
18	P-01	IP-05	WEOS - DF-02			1415 : 30	1420 : 30	Yes	PASS		✓	KSW		
19	P-01	IP-04	WEOS - EEOS			1425 : 30	1430 : 30	Yes	PASS		✓	KSW		
20	P-05	P-06	WEOS - EEOS		↓	1425 : 30	1431 : 30	Yes	PASS		✓	KSW		

\* REFERENCE SEAM ENDPOINTS FROM AND END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM (I.e., REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

# GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

DATE: Jan 28, 2005  
 SHEET NUMBER: 2 of 3

SEAM NUMBER	SEAM SECTION *		PRESS. GAUGE NUMBER	TECH ID	TIME		PRESSURE		OBS. TEST	RESULTS PASS/ FAIL	SEAM COMPLETE			REMARKS
	FROM	TO			START	FINISH	INITIAL	FINAL			NO	YES	MON.	
1 P4 1P5	SEDS	- NEOS	↑	↑	1430	: 1436	30	: 30	✓	P		✓	KSW	
2 P5 1P6	WEOS	- EEOS			1435	: 1440	30	: 30	✓	P		✓	KSW	
3 P13 1P15	SEOS	- NEOS			1450	: 1500	30	: 29	✓	P		✓	KSW	
4 P15 1P18	EEOS	- WEOS			1450	: 1555	30	: 29	✓	P		✓	KSW	
5 P13 1P18	WEOS	- EEOS			1500	: 1505	30	: 30	✓	P		✓	KSW	
6 P18 1P24	WEOS	- EEOS			1500	: 1510	30	: 30	✓	P		✓	KSW	
7 P19 1P24	WEOS	- EEOS			1535	: 1543	30	: 30	✓	P		✓	KSW	
8 P24 1P25	NEOS	- SEOS			1535	: 1554	30	: 30	✓	P		✓	KSW	
9 P19 1P25	WEOS	- SEOS			1545	: 1551	30	: 30	✓	P		✓	KSW	
10 P18 1P25	WEOS	- EEOS			1550	: 1556	30	: 30	✓	P		✓	KSW	
11 P18 1P26	NEOS	- SEOS			1555	: -FAIL-	30	: FAIL	✓	FAIL	CAP -		KSW	
12 P18 1P26	NEOS	- 11'SqN			1600	: 1607	30	: 30	✓	P		✓	KSW	
13 P25 1P26	WEOS	- EEOS			1605	: 1610	30	: 30	✓	P		✓	KSW	
14 P13 1P26	WEOS	- DF-06			1613	: 1619	30	: 30	✓	P		✓	KSW	
15 P13 1P26	DF-06	- 2B			1615	: 1620	30	: 29	✓	P		✓	KSW	
16 P13 1P26	2B	- EEOS			1616	: 1628	30	: 30	✓	P		✓	KSW	
17 P06 1P12	WEOS	- MW			1622	: 1629	30	: 30	✓	P		✓	KSW	
18 P06 1P12	MW	- DF03			1624	: 1637	30	: 30	✓	P		✓	KSW	
19 P23 1P26	WEOS	- EEOS			1630	: 1638	30	: 30	✓	P		✓	KSW	
20 P20 1P23	WEOS	- EEOS			1630	: 1638	30	: 30	✓	P		✓	KSW	

\* REFERENCE SEAM ENDPOINTS FROM AND END OF SEAM (EDS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM (i.e. REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MC/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

DATE: June 28, 2005  
 SHEET NUMBER: 3 of 3

SEAM NUMBER	SEAM SECTION *		PRESS. GAUGE NUMBER	TECH ID	TIME		PRESSURE		OBS. TEST	RESULTS PASS/ FAIL	SEAM COMPLETE		MON.	REMARKS
	FROM	TO			START	FINISH	INITIAL	FINAL			NO	YES		
1	P19	IP20		ST	1635	1641	30	30	✓	P		✓	K80	
2	P23	IP25		ST	1636	FAK	30	FAIL	✓	FAIL		✓	K8W	
3	P12	IP13		ST	1500	1505	30	30	✓	PASS		✓	K8W	
4	/	-			:	:	:	:						
5	/	-			:	:	:	:						
6	/	-			:	:	:	:						
7	/	-			:	:	:	:						
8	/	-			:	:	:	:						
9	/	-			:	:	:	:						
10	/	-			:	:	:	:						
11	/	-			:	:	:	:						
12	/	-			:	:	:	:						
13	/	-			:	:	:	:						
14	/	-			:	:	:	:						
15	/	-			:	:	:	:						
16	/	-			:	:	:	:						
17	/	-			:	:	:	:						
18	/	-			:	:	:	:						
19	/	-			:	:	:	:						
20	/	-			:	:	:	:						

\* REFERENCE SEAM ENDPOINTS FROM AND END-OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM (i.e., REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCV Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

DATE: June 29, 2005  
 SHEET NUMBER: 1 of 1

SEAM NUMBER	SEAM SECTION *		PRESS. GAUGE NUMBER	TECH ID	TIME		PRESSURE		YES OBS. TEST	RESULTS PASS/ FAIL	SEAM COMPLETE		MON.	REMARKS
	FROM	TO			START	FINISH	INITIAL	FINAL			NO	YES		
1	P22	P23		ST	0730	0735	30	30	✓	P		✓	KSW	
2	P22	P26		ST	0730	0735	30	30	✓	P		✓	KSW	
3	P20	P21		ST	0735	0745	30	30	✓	P		✓	KSW	
4	P21	P22		ST	0735	0745	30	30	✓	P		✓	KSW	
5	P20	P22		ST	0750	0755	30	30	✓	P		✓	KSW	
6	P21	P-26		ST	0805	0811	31	31	✓	P		✓	KSW	
7	P21	P-26		ST	0815	0820	30	30	✓	P		✓	KSW	
8	P23	P26		ST	0811	0820	30	30	✓	P		✓	KSW	
9	P21	P29		ST	0828	0835	30	29	✓	P		✓	KSW	
10	P21	P28		ST	0825	0835	30	30	✓	P		✓	KSW	
11	P28	P29		ST	0826	0836	30	30	✓	P		✓	KSW	
12	P6	P12		ST	0841	0846	30	30	✓	P		✓	KSW	
13	P12	P23		ST	0840	0850	30	30	✓	P		✓	KSW	
14	P8	P27		ST	0848	0854	30	30	✓	P		✓	KSW	
15	P5	P27		ST	0851	0856	30	30	✓	P		✓	KSW	
16	P1	P5		ST	0856	0902	30	30	✓	P		✓	KSW	
17	P1	P27		ST	0857	0905	30	30	✓	P		✓	KSW	
18	1	-												
19	1	-												
20	1	-												

\* REFERENCE SEAM ENDPOINTS FROM AND END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM (I.e., REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

# GEOMEMBRANE SEAM PRESSURE TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

DATE: June 30, 2005  
 SHEET NUMBER: 1 of 1

SEAM NUMBER	SEAM SECTION *		PRESS. GAUGE NUMBER	TECH ID	TIME		PRESSURE		OBS. TEST	RESULTS PASS/ FAIL	SEAM COMPLETE		MON.	REMARKS
	FROM	TO			START	FINISH	INITIAL	FINAL			NO	YES		
1	P13	115	NEDS(IP)SEDS	10712	ST	0947	0951	30	29	yes	P		yes	KSW
2	P6	1214	-	10712	ST	1315	1320	30	30	yes	P		yes	KSW
3	/	-	-			:	:	:	:					
4	/	-	-			:	:	:	:					
5	/	-	-			:	:	:	:					
6	/	-	-			:	:	:	:					
7	/	-	-			:	:	:	:					end of PT.
8	/	-	-			:	:	:	:					
9	/	-	-			:	:	:	:					
10	/	-	-			:	:	:	:					
11	/	-	-			:	:	:	:					
12	/	-	-			:	:	:	:					
13	/	-	-			:	:	:	:					
14	/	-	-			:	:	:	:					
15	/	-	-			:	:	:	:					
16	/	-	-			:	:	:	:					
17	/	-	-			:	:	:	:					
18	/	-	-			:	:	:	:					
19	/	-	-			:	:	:	:					
20	/	-	-			:	:	:	:					

\* REFERENCE SEAM ENDPOINTS FROM AND END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM (i.e., REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

# GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

**PASSING TRIAL SEAMS**

NO.	TIME	TECH. ID
E-01	1600	KC

MACHINE NUMBER

#250

DATE

June 28, 05

SHEET NO.

1 of 1

	DEFECT CODE	REPAIR DATE	APPROX. TIME	REPAIR TYPE	APPROX. DIMENSION	WELD TECH.	MON.	REMARKS
1	2M	6/28	1610	P	3x3'	KC	KSD	
2	2K	6/28	1617	P	2x2'	KC	KSD	
3	2N	6/28	1619	P	2x2'	KC	KSD	
4	1H	6/28	1624	P	3x4'	KC	KSD	
5	1J	6/28	1630	P	3x3'	KC	KSD	
6	3B	6/28	1635	P	3x3'	KC	KSD	
7	1F	6/28	1639	P	5x4'	KC	KSD	
8	1E	6/28	1643	P	2x4'	KC	KSD	
9	3C	6/28	1651	P	4x4'	KC	KSD	
10	3D	6/28	1658	P	4x2'	KC	KSD	
11	3E	6/28	1707	P	4x2'	KC	KSD	
12	3F	6/28	1709	P	6'	KC	KSD	
13	3G	6/28	1715	P	6'	KC	KSD	
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND WELD

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_



# GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

PASSING TRIAL SEAMS

NO.	TIME	TECH. ID
E-02	1235	KC

MACHINE NUMBER 250

DATE June 28  
 SHEET NO. 2 of 2

	DEFECT CODE	REPAIR DATE	APPROX. TIME	REPAIR TYPE	APPROX. DIMENSION	WELD TECH.	MON.	REMARKS
1	2E	6/29	1750	CAP	13x3	KC	KSW	
2	2D	6/29	1750	CAP	13x3	KC	KSW	
3	4B	6/29	1800	<del>RS</del> P	2x4	KC	KSW	TX-01
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND WELD

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_

# GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

### PASSING TRIAL SEAMS

	NO.	TIME	TECH. ID
	E-01	0735	KC
	E-02	1235	KC

DATE: June 29, 05  
 SHEET NO. 1 of 2

MACHINE NUMBER S 250

	DEFECT CODE	REPAIR DATE	APPROX. TIME	REPAIR TYPE	APPROX. DIMENSION	WELD TECH.	MON.	REMARKS
1	3A	6/29	1000 hr	corner/boot	11'	KC	KSW	
2	3A	6/29	1310	P	2x3'	KC	KSW	
3	1D	6/29	1317	P	2x4'	KC	KSW	
4	1C	6/29	1315	P	2x4'	KC	KSW	
5	1A	6/29	1320	P	2x6'	KC	KSW	
6	2I	6/29	1337	P	2x8'	KC	KSW	
7	1B	6/29	1330	P	2x8'	KC	KSW	
8	2H	6/29	1342	P	2x4'	KC	KSW	
9	3I	6/29	131619	R EXT.	17'	KC	KSW	
10	1G	6/29	1350	P	13'	KC	KSW	
11	3J	6/29	1000	P	7'	KC	KSW	
12	3K	6/29	1010	P	7'	KC	KSW	
13	2X	6/29	1500	P/B	21'	KC	KW	
14	2S	6/29	1520	P	18'	KC	KW	
15	2T	6/29	1550	Boot	5x5	KC	KW	
16	3M	6/29	1640	Boot	26'	KC	KW	
17	3N	6/29	1645	Boot	10'	KC	KW	
18	3P	6/29	1640	Boot	10'	KC	KW	
19	3Q	6/29	1653	BS	4'	KC	KW	
20	3R	6/29	1656	BS	7'	KC	KW	
21	3S	6/29	1659	P	4'	KC	KW	
22	3T	6/29	1710	P	5'	KC	KW	
23	3W	6/29	1730	B	10'	KC	KW	
24	3X	6/29	1735	P	10'	KC	KW	
25	4A	6/29	1737	P	10'	KC	KW	

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND WELD

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_

# GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

### PASSING TRIAL SEAMS

NO.	TIME	TECH. ID
E-01	0742	KC
E-02	1245	KC

MACHINE NUMBER # 250

DATE June 30, 2005

SHEET NO. 1 of 2

	DEFECT CODE	REPAIR DATE	APPROX. TIME	REPAIR TYPE	APPROX. DIMENSION	WELD TECH.	MON.	REMARKS
1	1M	6/30	0806	P	35'Z	KC	KSW	
2	1N	6/30	0807	C		KC	KSW	
3	1K	6/30	0820	P	6'	KC	KSW	
4	4C	6/30	0845	P	6'	KC	KSW	
5	4D	6/30	0845	Boat	20'	KC	KSW	
6	1P	6/30	0854	P	8'	KC	KSW	
7	1Q	6/30	0900	C	40'	KC	KSW	
8	4E	6/30	0915	P	7'	KC	KSW	
9	4F	6/30	0935	EXT	18'	KC	KSW	
10	4G	6/30	0955	EXT	12'	KC	KSW	
11	1X	6/30	1005	P	5'	KC	KSW	
12	1S	6/30	1013	P	5'	KC	KSW	
13	1W	6/30	1025	P	12'	KC	KSW	
14	1T	6/30	1035	C	32'	KC	KSW	
15	4H	6/30	1050	pipe cover	15'	KC	KSW	2C, 2D, 2E are under cap
16	2G	6/30	1103	P	5'	KC	KSW	
17	2F	6/30	1110	P	5'	KC	KSW	
18	2D	6/30	1123	P	5'	KC	KSW	
19	2A	6/30	1116	P	14'	KC	KSW	
20	2R	6/30	1127	C	35'	KC	KSW	
21	4J	6/30	1315	P	7'	KC	KSW	
22	2B	6/30	1335	P	7'	KC	KSW	
23	2J/4N	6/30	1354	P	9'	KC	KSW	
24	4M	6/30	1358	C	35'	KC	KSW	
25	4P	6/30	1410	C	30'	KC	KSW	

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND WELD

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_



# GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

### PASSING TRIAL SEAMS

NO.	TIME	TECH. ID
E-01	0742	KC
E-02	1245	KC

MACHINE NUMBER #250

DATE June 30, 05

SHEET NO. 2 of 2

	DEFECT CODE	REPAIR DATE	APPROX. TIME	REPAIR TYPE	APPROX. DIMENSION	WELD TECH.	MON.	REMARKS
1	4Q	6/30	1450	P	12'	KC	KSD	
2	2Q	6/30	1420	P	7'	KC	KSD	
3	4R	6/30	1425	P	32'	KC	KSD	
4	4S	6/30	1432	P	5'	KC	KSD	
5	9X	6/30	1440	P	6'	KC	KSD	
6	1R	6/30	1450	P	1.5x5	KC	KSD	
7	2P	6/30	1455	P	6'	KC	KSD	
8	2W	6/30	1505	P	12'	KC	KSD	
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND WELD

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_

# GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Lyndonville Site/NY  
 CONTRACTOR: Chenango Contracting

### PASSING TRIAL SEAMS

NO.	TIME	TECH. ID
TX-01	0830	JR

MACHINE NUMBER

ZSD

DATE

7/5/05

SHEET NO. \_\_\_\_\_

	DEFECT CODE	REPAIR DATE	APPROX. TIME	REPAIR TYPE	APPROX. DIMENSION	WELD TECH.	MON.	REMARKS
1	5S	7/5/05	0850	P	1x1	JR	MLB	
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND WELD

P-3 - 1' south of P-1 + 40' E of WEOP

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_

# GEOMEMBRANE REPAIR LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

### PASSING TRIAL SEAMS

NO.	TIME	TECH. ID
TX-01	0745	KCS
TX-02	1140	CS
TX-02	7/6-0900	SL
TX-04	7/6 1355	SL

MACHINE NUMBER

# 250

DATE

July 1 05  
July 6 05

SHEET NO.

1 of 1

#	DEFECT CODE	REPAIR DATE	APPROX. TIME	REPAIR TYPE	APPROX. DIMENSION	WELD TECH.	MON.	REMARKS
1	4T	7/1	1045	P	15'	CS	KSW	
2	4W	7/1	0825	P	18'	CS	KSW	
3	5A	7/1	1045	P	14'	CS	KSW	
4	5B	7/1	1054	Ext	9'	CS	KSW	
5	5C	7/1	1100	EXT	15'	CS	KSW	
6	5D	7/1	1340	Boot	32'	CS	KSW	
7	5E	7/1	1355	Boot	15'	CS	KSW	
8	5F	7/5	0730	patch	4'	ST	KSW	
9	5G	7/6	0950	Boot	11'	ST	KSW	
10	5H	7/6	0955	Boot	10' 32'	ST	KSW	
11	5I	7/6	1000	Boot	11'	ST	KSW	
12	5J	7/6	1400	Boot	8'	ST	KSW	
13	5K	7/6	1410	Boot	10'	ST	KSW	
14	5M	7/6	1420	Boot	8'	ST	KSW	
15	5N	7/6	1430	Boot	10'	ST	KSW	
16	5P	7/6	1444	Boot	10'	ST	KSW	
17	5Q	7/6	1540	Boot	10'	ST	KSW	
18	5R	7/6	1605	Boot	10'	ST	KSW	
19								
20								
21								
22								
23								
24								
25								

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND WELD

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_



# GEOMEMBRANE SEAM VACUUM TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

VACUUM BOX NUMBER 1 and only

SHEET NUMBER 1 of 1

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
1 2M	6/29	ST	none	yes	KSW	
2 2K	6/29	ST	"	yes	KSW	
3 2N	6/29	ST	"	yes	KSW	
4 1H	6/29	ST	"	yes	KSW	
5 1J	6/29	ST	"	yes	KSW	
6 B3	6/29	ST	"	yes	KSW	
7 1F	6/29	ST	"	yes	KSW	
8 1E	6/29	ST	LEAK	yes	KSW	BEADED / TESTED
9 3D	6/29	ST	none	yes	KSW	
10 3E	6/29	SB	"	yes	KSW	
11 3C	6/29	ST	"	yes	KSW	
12 3F	6/29	ST	"	yes	KSW	
13 3G	6/29	ST	"	yes	KSW	
14 1E	6/29	ST	"	yes	KSW	
15 3A	6/29	ST		yes	KSW	

(10)

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
16 3H	6/29	ST	none	✓	KSW	
17 1D	6/29	ST	"	✓	KSW	
18 1O	6/29	ST	"	✓	KSW	
19 1A	6/29	ST	"	✓	KSW	
20 2I	6/29	ST	"	✓	KSW	
21 1B	6/29	ST	A	✓	KSW	
22 2H	6/29	ST	"	✓	KSW	
23 3I	6/29	ST	"	✓	KSW	
24 1G	6/29	ST	"	✓	KSW	
25 3J	6/29	ST		✓	KSW	
26 3K	6/29	ST		✓	KSW	
27 2X	6/29	ST		✓	KSW	
28 2S	6/29	ST		✓	KSW	
28 2T	6/29	ST		✓	KSW	
30 2M	6/29	ST		✓	KSW	

SEAMS										
SEAM NUMBER	SEAM SECTION **		TEST DATE	TECH ID	DEFECTS **	SEAM COMPLETE		OBS. TEST	MON.	REMARKS
	FROM	TO				NO	YES			
1	1	-				1				
2	1	-				1				
3	1	-				1				
4	1	-				1				
5	1	-				1				

*Done for the day*  
 @ 1646  
 wrong  
 There's more

\* REFERENCE SEAM ENDPOINTS FROM AN END OF PANEL (EDP), A REPAIR NUMBER, OR A POINT LOCATION ON THE PANEL (i.e., REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)  
 \*\* RECORD QUANTITY OF LEAKS DETECTED AND REFERENCE NEW DEFECT CODE IN REMARKS.

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_

# GEOMEMBRANE SEAM VACUUM TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

VACUUM BOX NUMBER \_\_\_\_\_

SHEET NUMBER 2 of 2

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
1	3N	6/29	CS	none	yes	KSW
2	3P	6/29	CS	"	yes	KSW
3	3Q	6/29	CS	"	yes	KSW
4	3R	6/29	CS	"	yes	KSW
5	3S	6/29	CS	"	yes	KSW
6	3T	6/29	CS	"	yes	KSW
7	3W	6/29	CS	"	yes	KSW
8	4A	6/29	CS	"	yes	KSW
9	<del>2E, D</del>	<del>6/29</del>	<del>CS</del>	<del>"</del>	<del>y</del>	
10						
11						
12						
13						
14						
15						

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
16	ZP	6/30	CS	-	yes	KSW
17	2W	6/30	CS	-	yes	KSW
18	ZP	6/30	CS	-	yes	KSW
19	ZJ	6/30	CS	-	yes	KSW
20	ZR	6/30	CS	-	yes	KSW
21						
22						
23						
24						
25						
26						
27						
28						
28						
30						

SEAMS										
SEAM NUMBER	SEAM SECTION *		TEST DATE	TECH ID	DEFECTS **	SEAM COMPLETE		OBS. TEST	MON.	REMARKS
	FROM	TO				NO	YES			
1	1	4B	19/20/23/25	6/30	ST	0	X	✓	KSW	Cap
2	1						1			
3	1						1			
4	1						1			
5	1						1			

\* REFERENCE SEAM ENDPOINTS FROM AN END OF PANEL (EDP), A REPAIR NUMBER, OR A POINT LOCATION ON THE PANEL (i.e., REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)

\*\* RECORD QUANTITY OF LEAKS DETECTED AND REFERENCE NEW DEFECT CODE IN REMARKS.

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_



# GEOMEMBRANE SEAM VACUUM TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

VACUUM BOX NUMBER one + only

SHEET NUMBER 1 of 2

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
1 IN	6/30	ST	none	yes	KSW	
2 IM	6/30	ST	*	yes	KSW	
3 IK	6/30	ST	"	yes	KSW	
4 IC	6/30	ST	"		KSW	
5 ID	6/30	ST	"		KSW	
6 IP	6/30	ST	"		KSW	
7 IQ	6/30	ST	"		KSW	
8 IE	6/30	ST	"		KSW	
9 IF	6/30	ST	"		KSW	
10 IG	6/30	ST	"		KSW	
11 IX	6/30	ST	"		KSW	
12 IS	6/30	ST	"		KSW	
13 IW	6/30	ST	"		KSW	
14 IT	6/30	ST	"		KSW	
15 4H <sup>Ⓟ</sup>	6/30	ST	"	yes	KSW	

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
16 2G	6/30	ST	none	yes	KSW	
17 2E	6/30	ST	"		KSW	
18 2D	6/30	ST	"		KSW	
19 2A	6/30	ST	"		KSW	
20 2R	6/30	ST	"		KSW	
21 4J	6/30	ST	"		KSW	
22 4K	6/30	ST	"		KSW	
23 2B	6/30	ST	"		KSW	
24 4I	6/30	ST	"		KSW	
25 4M	6/30	ST	"		KSW	
26 4N	6/30	ST	"		KSW	
27 4P	6/30	ST	"		KSW	
28 4Q	6/30	ST	"		KSW	
28 2Q	6/30	ST	"		KSW	
30 4R	6/30	ST	"		KSW	
30 1E	6/30	ST	"		KSW	

→ see remarks

SPARK TESTS SEAMS								
BOOT NUMBER	LOCATION	TEST DATE	TECH ID	Type	P/F	OBS. TEST	MON.	REMARKS
1 13A	SE CORN. T.B.*	6/30	ST	BOOT	PASS	✓	KSW	Ⓟ 2C, 2D + 2E are all
2 12X	NE corner "	6/30	ST	BOOT	PASS	✓	KSW	under the cap at
3 12S	Mon Well NE	6/30	ST	BOOT	PASS	✓	KSW	P. 19, 20, 23, 25 4H =
4 13W	NW LIGHT POLE	6/30	ST	BOOT	PASS	✓	KSW	defect # for DX-01.
5 13M	NE VEST DRAIN	6/30	ST	BOOT	PASS	✓	KSW	all seams = VT OK

\* REFERENCE SEAM ENDPOINTS FROM AN END OF PANEL (EDP), A REPAIR NUMBER, OR A POINT LOCATION ON THE PANEL (i.e. REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)  
 \*\* RECORD QUANTITY OF LEAKS DETECTED AND REFERENCE NEW DEFECT CODE IN REMARKS.

\* Juice building

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_



# GEOMEMBRANE SEAM VACUUM TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Lyndonville Site/NY  
 CONTRACTOR: Chenango Contracting

VACUUM BOX NUMBER \_\_\_\_\_

SHEET NUMBER \_\_\_\_\_

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
16	5S	7/5/5	JR	∅	yes	MLB
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
28						
30						

SEAMS										
SEAM NUMBER	SEAM SECTION *		TEST DATE	TECH ID	DEFECTS **	SEAM COMPLETE		OBS. TEST	MON.	REMARKS
	FROM	TO				NO	YES			
1	/	-				/				
2	/	-				/				
3	/	-				/				
4	/	-				/				
5	/	-				/				

\* REFERENCE SEAM ENDPONTS FROM AN END OF PANEL (EDP), A REPAIR NUMBER, OR A POINT LOCATION ON THE PANEL (i.e., REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)

\*\* RECORD QUANTITY OF LEAKS DETECTED AND REFERENCE NEW DEFECT CODE IN REMARKS.

REVIEWED BY: \_\_\_\_\_ DATE \_\_\_\_\_

# GEOMEMBRANE SEAM VACUUM TEST LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

VACUUM BOX NUMBER \_\_\_\_\_

SHEET NUMBER 2 of 2

REPAIRS						
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS
1	4R	6/30	ST	yes	KSW	already replaced
2	4S	6/30	ST	none	KSW	
3	4T	7/1	ST	yes	KSW	DF-6/2A
4	4W	7/1	ST	yes	KSW	
5	4X	7/1	ST	yes	KSW	
6	5B	7/1	CS	yes	KSW	EXT. IP
7	5A	7/1	CS	yes	KSW	EXT
8	5C	7/1	CS	yes	KSW	
9	5D	7/1	CS	yes	KSW	
10	5E	7/1	CS	yes	KSW	
11	5F	7/6	ST	yes	KSW	leak
12	5G	7/6	ST	yes	KSW	leak
13	5H	7/6	ST	yes	KSW	leak
14	5I	7/6	ST	yes	KSW	leak
15	5J	7/6	ST	yes	KSW	leak

REPAIRS							
DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	OBS. TEST	MON.	REMARKS	
16	5K	7/6	SL	VTOK	yes	KSW	leak
17	5M	7/6	SL	VTOK	yes	KSW	leak
18	5N	7/6	SL	VTOK	yes	KSW	leak
19	5P	7/6	SL	VTOK	yes	KSW	leak
20						We have tested every thing on the membrane.	
21							
22							
23						7/1/05	
24						We Walked all panels	
25							
26							
27	5Q	7/6	SL	yes	KSW	leak	
28	5R	7/6	SL	yes	KSW	leak	
28							
30							

- BOOTS -										
DEFECT NUMBER	LOCATION: DOBBINS	DATE	TECH ID	TYPE	P/E		OBS. TEST	MON.	REMARKS	
					NO	YES				
1	1 4D	NE corner light	6/30	ST	BOOT	1	P	yes	KSW	
2	N 1 5D	N bumper post	7/1	CS	BOOT	1	P	yes	KSW	
3	S 1 5D	S bumper post	7/1	CS	BOOT	1	P	yes	KSW	
4	1 5E	gray wire	7/1	CS	BOOT	1	P	yes	KSW	
5	5G, H, I	OP-02-08	7/6	CS	Boots	1	P	yes	KSW	

\* REFERENCE SEAM ENDPOINTS FROM AN END OF PANEL (EDP), A REPAIR NUMBER, OR A POINT LOCATION ON THE PANEL (i.e., REFERENCE POINT, DISTANCE, DIRECTION FROM REF. PT.)

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REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

add to 6/30  
 TRAIL seams - call to 6/30  
 Seams: 130 - 20' NW extension onto P-21  
 6/30 17 NE extension onto P-21  
 24 NE extension onto P-21  
 Seams 7/1 - 18' @ 837 repair # 4T @ P-26/13 total =  
 Por 15' @ 842 @ P-21 ME XT.  
 on three over Farm - 7/1

# GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

SHEET NUMBER: ①

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	LOG DATE	MON.	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR NO.	DEFECT LOCATION DESCRIPTION						
A	P-01/P-03	128' w of EEOs	DF-01	6/27	KW	1A	6/29	6/29
B	P-01/P-05	26 w of EEOs	DF-02	6/27	KDW	1B	6/29	6/29
C	P04/05	Int w/ P-06	T	6/27	MLB		6/29	6/29
D	P01/04	Int w/ P-05	T	6/27	MLB		6/29	6/29
E	P-01/02	Int w/ P-07	T	6/27	MLB		6/29	6/29
F	P-02/07	Int w/ P-08+09	T	6/27	MLB		6/29	6/29
G	P12/13	75' w of EEOs	DF-03	6/28	MLB		6/29	6/29
H	P08/11	Int w/ P-17	T	6/28	MLB		6/29	6/29
I	P08/09	Int w/ P-14+P-17	T	6/28	MLB			
J	P09/12	Int w/ P-14	T	6/28	MLB		6/29	6/29
K	P12/13	Int w/ P-14	T	6/28	MLB		6/30	6/30
M	P9/12	10' w of EEOs	DF-04	6/28	MLB		6/30	6/30
N	P9/10	Int w/ P12	T	6/28	MLB		6/30	6/30
P	P13/15	Int. w/ P18	T	6/28	MLB		6/30	6/30
Q	P15/16	Int. w/ P18	T	6/28	MLB		6/30	6/30
R	P12/13	15' w of EEOs	DF-5	6/28	MLB		6/30	6/30
S	P18/24	Int w/ P-25	T	6/28	MLB		6/30	6/30
T	P13/18	Int. w/ P26	T	6/28	MLB		6/30	6/30
W	P18/25	Int w/ P26	T	6/28	MLB		6/30	6/30
X	P19/24	Int w/ P25	T	6/28	MLB		6/30	6/30

AD - ANIMAL RELATED DAMAGE  
 B - UNDISPERSED RESIN BEAD  
 BO - FUSION WELDER BURN  
 BS - BOOT/SKIRT FOR FML PENETRATION  
 CO - CHANGE OF OVERLAP  
 CR - CREASE  
 D - INSTALLATION DAMAGE  
 DS# - DESTRUCTIVE TEST NUMBER

EE - EARTHWORK EQUIPMENT DAMAGE  
 EXT - EXTENSION  
 FM - FISHMOUTH  
 FS - FAILED SEAM LENGTH  
 FTS - FIELD TEST STRIP  
 HT - HEAT TACK BURN  
 IO - INSUFFICIENT OVERLAY (UNDER SPEC.)  
 MD - MANUFACTURER/DELIVERY DAMAGE

PT - PRESSURE TEST CUT  
 SI - SOIL SURFACE IRREGULARITY  
 SL - SLAG ON TEXTURED SHEET  
 T - THREE PANEL INTERSECTION  
 VL - VACUUM TEST LEAK  
 WR - WRINKLE  
 WS - WELDER RESTART  
 OTHER \_\_\_\_\_

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY.

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY.

PROJECT TITLE: MCI/ Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

SHEET NUMBER: 2

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	LOG DATE	MON.	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR NO.	DEFECT LOCATION DESCRIPTION						
A	P13/26	120' E OF WEOS	DF-6	6/28	MCS		6/30	6/30
B	P13/26	84' W OF EEOS	BD	6/28	MCS		6/30	6/30
C	P23/25	Int w/ P-26	T	6/28	MCS	Covered by 4H	6/30	6/30
(D)	P19/23	Int w/ P-25	T	6/28	MCS	Covered by 4H	6/30	6/30
(E)	P19/20	Int w/ P-23	T	6/28	MCS	Covered by 4H	6/30	6/30
F	P22/23	Int w/ P-26	T	6/28	MCS		6/30	6/30
G	P20/22	Int w/ P-23	T	6/28	MCS		6/30	6/30
(H)	P5/16	Int w/ P-27	T	6/28	MCS		6/29	6/29
(I)	P1/5	Int w/ P-27	T-DET	6/28	MCS	DF-7	6/29	6/29
(J)	P21/26	12' W OF EEOS	DF-B	6/28	MCS		6/30	6/30
(K)	P12/P8	2' E of WEOS	PT	6/29	KSW		6/28	6/29
(L)	P1	West corner	corner	6/29	KSW	building corner	6/28	6/29
(M)	P8/P11	WEOS	PT	6/29	KSW		6/28	6/29
(N)	P2/P22	20 SEOS	PT	6/29	KSW		6/30	6/30
(O)	P21/28/29	3pt. intersect	PT	6/29	KSW		6/30	6/30
(P)	P21/22/26	3pt intersect	CAP	6/29	KSW		6/30	6/30
(Q)	P4/P6/12	30' from WEOS	BS	6/29	KSW		6/29	6/29
(R)	P12	11' NE of P6/12	BS	6/29	KSW		6/29	6/29
W	P16/12	WEOS	BT	6/29	KSW		6/30	6/30
(S)	P6	NE corner juice Build	BT	6/29	KSW		6/29	6/29

- AD - ANIMAL RELATED DAMAGE
- B - UNDISPERSED RESIN BEAD
- BO - BUISION WELDER BURN
- BS - BOOTSKIRT FOR FMI PENETRATION
- CO - CHANGE OF OVERLAP
- CR - CREASE
- D - INSTALLATION DAMAGE
- DS-# - DESTRUCTIVE TEST NUMBER

*Done*

- EE - EARTHWORK EQUIPMENT DAMAGE
- EXT - EXTENSION
- FM - FISHMOUTH
- FS - FAILED SEAM LENGTH
- FTS - FIELD TEST STRIP
- HT - HEAT TACK BURN
- IO - INSUFFICIENT OVERLAY (UNDER SPEC.)
- MD - MANUFACTURER/DELIVERY DAMAGE

- PT - PRESSURE TEST CUT
- SI - SOIL SURFACE IRREGULARITY
- SL - SLAG ON TEXTURED SHEET
- T - THREE PANEL INTERSECTION
- VL - VACUUM TEST LEAK
- WR - WRINKLE
- WS - WELDER RESTART
- OTHER \_\_\_\_\_

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY.

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

# GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

SHEET NUMBER: 3

*around Juice Building*

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	LOG DATE	MON.	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR NO.	DEFECT LOCATION DESCRIPTION						
A	P-01	SE corner Juice B	BS	6/29	KSW		6/28	6/29
B	P14/17	NE corner	BS	6/29	KSW	Covers 1E	6/28	6/29
C	P1	60' E of wep's	BS	6/29	KSW		6/28	6/29
D	P2(P1)	SW Porch corner	BS	6/29	KSW		6/28	6/29
E	P7	NW Porch corner	BS	6/29	KSW		6/28	6/29
F	(P1)	S/SW Porch corner	BS	6/29	KSW		6/28	6/29
G	P1	S/SE Porch corner	BS	6/29	KSW		6/29	6/29
H	P1	25' SE corner J.B.	PT	6/29	KSW		6/29	6/29
I	P3	FFO panel	EXT	6/29	KSW		6/29	6/29
J	P1	SW corner J.B.	P	6/29	KSW		6/29	6/29
K	P1, P4	SW corner J.B.	P	6/29	KSW		6/29	6/29
M	P6-P12	NE corner J.B. VESTIBULE	B	6/29	KSW		6/29	6/29
N	P12	NE corner of N step	B	6/29	KSW		6/29	6/29
P	P12	NW corner of N step	B	6/29	KSW		6/29	6/29
Q	P12	NW corner Vestib. Juice Bl.	BS	6/29	KSW		6/29	6/29
R	P12-10	NW corner Vestib. Juice B.	BS	6/29	KSW		6/29	6/29
S	P12-10	NW corner Vestib. Juice	P	6/29	KSW		6/29	6/29
T	P10	inner corner	BS	6/29	KSW		6/29	6/29
W	P-9	NW drain boot	BS	6/29	KSW		6/29	6/29
X	P9	NW corner	BS	6/29	KSW		6/29	6/29

*all tested.*

- AD - ANIMAL RELATED DAMAGE
- B - UNDISPERSED RESIN BEAD
- BO - FUSION WELDER BURN
- BS - BOOTSHORT FOR FML PENETRATION
- CO - CHANGE OF OVERLAP
- CR - CREASE
- D - INSTALLATION DAMAGE
- DS# - DESTRUCTIVE TEST NUMBER

*Done*

- EE - EARTHWORK EQUIPMENT DAMAGE
- EXT - EXTENSION
- FM - FISHMOUTH
- FS - FAILED SEAM LENGTH
- FTS - FIELD TEST STRIP
- HT - HEAT TACK BURN
- IO - INSUFFICIENT OVERLAY (UNDER SPEC.)
- MD - MANUFACTURER/DELIVERY DAMAGE

- PT - PRESSURE TEST CUT
- SI - SOIL SURFACE IRREGULARITY
- SL - SLAG ON TEXTURED SHEET
- T - THREE PANEL INTERSECTION
- VL - VACUUM TEST LEAK
- WR - WRINKLE
- WS - WELDER RESTART
- OTHER \_\_\_\_\_

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY.



# GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

SHEET NUMBER: 4

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	LOG DATE	MON.	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR NO.	DEFECT LOCATION DESCRIPTION						
B	P7/9	west side, Juice b	P	6/29	KSW		6/29	6/29
	P19, 20, 23, 25		CAP	6/29	KSLW		6/29	6/30
	P13	west DOBBINS NE CORNER	P	6/30	KSLW		6/30	6/30
	P13	west DOBBINS DRAIN	BOOT	6/30	KSLW		6/30	6/30
E	P18	WEST END	P	6/30	KSW		6/30	6/30
	P19	NW CORN. EXT	EXT	6/30	KSLW		6/30	6/30
G	P19/4F	NW CORN. EXT	EXT	6/30	KSW		6/30	6/30
H	P12	N. Door Juice Bldg PIPE	PIPE COVER	6/30	KSLW		6/30	6/30
	P21/P26	adjacent to 2R	P	6/30	KSLW	Covered by 2R	6/30	6/30
	P15, 18, 12	intersect	PT	6/30	KSLW		6/30	6/30
K	P15, 12, 13	over 1K	P	6/30	KSLW		6/30	6/30
M	P21-P26	1st cap / west <sup>EEOS</sup>	C	6/30	KSW		6/30	6/30
N	P21-P26	EEOS - patch	P	6/30	KSW		6/30	6/30
P	P21-P26	EEOS / East Cap	C	6/30	KSW		6/30	6/30
Q	P26/4P	EEOS	P	6/30	KSW	DX-02	6/30	6/30
R	P28/P29	NEOS	P	6/30	KSW		6/30	6/30
S	P24/P28	WEOS	P	6/30	KSW		6/30	6/30
T	P13/26	DE-06/2A	P	7/1	KSLW		7/1	7/1
W	P21 - NE EXT	NE EXTENSION - DX-02A	C	7/1	KSW	DX-02 A	7/1	7/1
X	P21/NEXT	NE/NC/NW EXTENSION	EXT	7/1	KSW		6/30	7/1

- AD - ANIMAL RELATED DAMAGE
- B - UNDISPERSED RESIN BEAD
- BO - FUSION WELDER BURN
- BS - BOOT/SKIRT FOR FML PENETRATION
- CO - CHANGE OF OVERLAP
- CR - CREASE
- D - INSTALLATION DAMAGE
- D8# - DESTRUCTIVE TEST NUMBER

*Dana*

- EE - EARTHWORK EQUIPMENT DAMAGE
- EXT - EXTENSION
- FM - FISHMOUTH
- FS - FAILED SEAM LENGTH
- FTS - FIELD TEST STRIP
- HT - HEAT TACK BURN
- IO - INSUFFICIENT OVERLAY (UNDER SPEC.)
- MD - MANUFACTURER/DELIVERY DAMAGE

- PT - PRESSURE TEST CUT
- SI - SOIL SURFACE IRREGULARITY
- SL - SLAG ON TEXTURED SHEET
- T - THREE PANEL INTERSECTION
- VL - VACUUM TEST LEAK
- WR - WRINKLE
- WS - WELDER RESTART
- OTHER \_\_\_\_\_

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY.

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# GEOMEMBRANE DEFECT LOG

PROJECT NUMBER: 053-9437  
 OWNER: Dupont  
 LOCATION: Lyndonville, NY

PROJECT TITLE: MCI/Site Remediation/NY  
 CONTRACTOR: Chenango Contracting

SHEET NUMBER: 5

DEFECT CODE	DEFECT LOCATION		DEFECT TYPE	LOG DATE	MON.	REMARKS	REPAIR DATE	TEST DATE
	SEAM, PANEL OR REPAIR NO.	DEFECT LOCATION DESCRIPTION						
A	P-24	West end panel	EXT	7/1	KSW		7/1	7/1
B	P-18	West end panel	P	7/1	KSW		7/1	7/1
C	P-19	West end panel	EXT	7/1	KSW		7/1	7/1
D	5-D	@ P-29 pole	Boot	7/1	KSW		7/1	7/1
E	P-21	power pole/East	Boot	7/1	KSW		7/1	7/1
F	P1-P3	30' from WEOS	P	7/5	KSW		7/5	7/5
G	P2	9' weos	Boot	7/6	KSW	FOR bumper post	7/6	7/6
H	P2	7' weos	Boot	7/6	KSW	gas vent	7/6	7/6
I	P8	9' weos	Boot	7/6	KSW	bumper post	7/6	7/6
J	P24	2' from we.	Boot	7/6	KSW	gas vent	7/6	7/6
K	P24	5' from we.	Boot	7/6	KSW	bumper post	7/6	7/6
M	P24	4' from we.	Boot	7/6	KSW	bumper post	7/6	7/6
N	P24	2' from NW corner	Boot	7/6	KSW	gate post	7/6	7/6
P	P19	NW extension	Boot	7/6	KSW	N gate post	7/6	7/6
Q	P28	@ SW corner	Boot	7/6	KSW	west gate	7/6	7/6
R	P29	@ SE corner	Boot	7/6	KSW	East gate	7/6	7/6
S	P3	1'S off P-1, 40'E of West	D	7/5/05	MLB		7/5	7/5
T								
W								
X								

- AD - ANIMAL RELATED DAMAGE
- B - UNDISPERSED RESIN BEAD
- BO - FUSION WELDER BURN
- BS - BOOT/SKIRT FOR FML PENETRATION
- CO - CHANGE OF OVERLAP
- CR - CREASE
- D - INSTALLATION DAMAGE
- DS-# - DESTRUCTIVE TEST NUMBER

- EE - EARTHWORK EQUIPMENT DAMAGE
- EXT - EXTENSION
- FM - FISHMOUTH
- FS - FAILED SEAM LENGTH
- FTS - FIELD TEST STRIP
- HT - HEAT TACK BURN
- IO - INSUFFICIENT OVERLAY (UNDER SPEC.)
- MD - MANUFACTURER/DELIVERY DAMAGE

- PT - PRESSURE TEST CUT
- SI - SOIL SURFACE IRREGULARITY
- SL - SLAG ON TEXTURED SHEET
- T - THREE PANEL INTERSECTION
- VL - VACUUM TEST LEAK
- WR - WRINKLE
- WS - WELDER RESTART
- OTHER \_\_\_\_\_

\*\* COLUMNS TO BE USED BY THE DATA REVIEWER ONLY.

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**Peel/Shear Testing-ASTM D6392  
Sample Report**

Project: Golder-Dupont, Lyndonville      Date: 7/1/2005  
 Project No.: 05-021      Tested By: JMA  
 Sample No.: DX-02      Lab ID No. 05-162  
 Weld Type: Extrusion      Cross Head Speed, in/min: 2  
 Temperature: 75 deg F

**Peel Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld a	1	0.997	67	67.2	SE3
	3	0.996	91	91.4	SE3
	5	1.001	124	123.9	SE3
	7	1.002	84	83.8	SE3
	9	1.007	81	80.4	SE3
	Average		89.4	89.3	

**Shear Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection	Extension @ Test End, in	Shear % Elongation
Weld a	2	0.996	161	161.6	BRK	4.18	418
	4	0.984	164	166.7	SE1	5.14	514
	6	1.000	157	157.0	BRK	5.61	561
	8	0.998	165	165.3	BRK	5.14	514
	10	1.008	160	158.7	BRK	3.69	369
	Average		161.4	161.9			

Rupture Mode Selection	
Key:	
AD1	Adhesion Failure with % failure
SE1	Break at seam edge in bottom sheet (applicable to shear only)
SE2	Break at seam edge in the top sheet (applicable to shear only)
SE3	Break at seam edge in the bottom sheet (applicable to peel only)
AD-BRK	Break in first seam after some adhesion failure (top or bottom sheet)
BRK	Break in either upper or lower sheeting

(585) 765-2673

**Peel/Shear Testing-ASTM D6392  
Sample Report**

Project: Golder-Dupont, Lyndonville      Date: 6/30/2005  
 Project No: 05-021      Tested By: JMA  
 Sample No.: DF-08A      Lab ID No. 05-159  
 Weld Type: Dbl Fusion      Cross Head Speed, in/min: 2  
 Temperature: 77 deg F

**Peel Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld a	1	1.008	130	129.0	SE1
	3	1.019	117	114.8	SE1
	5	1.018	130	127.7	SE1
	7	1.025	123	120.0	SE1
	9	1.014	128	126.2	SE1
			125.6	123.5	

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld b	1	1.003	115	114.7	SE1
	3	1.017	112	110.1	SE1
	5	1.028	115	111.9	SE1
	7	1.026	112	109.2	SE1
	9	1.019	113	110.9	SE1
			113.4	111.3	

**Shear Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection	Extension @ Test End, in	Shear % Elongation
Weld a,b	2	1.004	173	172.3	BRK	1.49	149
	4	1.020	169	165.7	BRK	2.59	259
	6	1.018	183	179.8	SE1	6.91	691
	8	1.031	180	174.6	BRK	9.58	958
	10	1.015	178	175.4	BRK	4.95	495
		Average	176.6	173.5			

Rupture Mode Selection	
Key:	
AD	Adhesion Failure
BRK	Break in sheeting (top or bottom sheet)
SE1	Break in outer seam edge. Break can be in top or bottom sheet.
SE2	Break at inner seam edge through both sheets.
AD-BRK	Break in first seam after some adhesion failure(top or bottom sheet)
SIP	Separation in the plane of the sheet (top or bottom)



**Peel/Shear Testing-ASTM D6392  
Sample Report**

Project: Golder-Dupont, Lyndonville      Date: 6/30/2005  
 Project No: 05-021      Tested By: JMA  
 Sample No.: DF-08B      Lab ID No. 05-158  
 Weld Type: Dbl Fusion      Cross Head Speed, in/min: 2  
 Temperature: 77 deg F

**Peel Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld a	1	0.990	115	116.2	SE1
	3	0.898	109	121.4	SE1
	5	1.018	118	115.9	SE1
	7	0.996	113	113.5	SE1
	9	0.985	116	117.8	SE1
			114.2	116.9	

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld b	1	0.982	114	116.1	SE1
	3	0.996	108	108.4	SE1
	5	1.021	82	80.3	AD
	7	0.995	107	107.5	SE1
	9	0.998	108	108.2	SE1
			103.8	104.1	

**Shear Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection	Extension @ Test End, in	Shear % Elongation
Weld a,b	2	0.992	159	160.3	SE1	1.59	159
	4	0.999	157	157.2	BRK	7.07	707
	6	1.019	166	162.9	BRK	2.25	225
	8	1.014	155	152.9	BRK	4.99	499
	10	1.000	166	166.0	BRK	4.83	483
		Average	160.6	159.8			

Rupture Mode Selection	
Key:	
AD	Adhesion Failure
BRK	Break in sheeting (top or bottom sheet)
SE1	Break in outer seam edge. Break can be in top or bottom sheet.
SE2	Break at inner seam edge through both sheets.
AD-BRK	Break in first seam after some adhesion failure(top or bottom sheet)
SIP	Separation in the plane of the sheet (top or bottom)

**Peel/Shear Testing-ASTM D6392  
Sample Report**

Project: Golder-Dupont, Lyndonville      Date: 6/30/2005  
 Project No: 05-021      Tested By: JMA  
 Sample No.: DX-01      Lab ID No. 05-157  
 Weld Type: Extrusion      Cross Head Speed, in/min: 2  
 Temperature: 77 deg F

**Peel Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld a	1	0.989	120	121.3	SE3
	3	0.994	126	126.8	SE3
	5	0.999	130	130.1	SE3
	7	0.997	125	125.4	SE3
	9	0.988	84	85.0	SE3
	Average		117.0	117.7	

**Shear Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection	Extension @ Test End, in	Shear % Elongation
Weld a	2	0.995	166	166.8	SE1	7.43	743
	4	1.002	160	159.7	BRK	6.83	683
	6	1.029	158	153.5	BRK	7.86	786
	8	0.996	152	152.6	BRK	6.53	653
	10	0.994	158	159.0	BRK	7.00	700
	Average		158.8	158.3			

Rupture Mode Selection	
Key:	
AD1	Adhesion Failure with % failure
SE1	Break at seam edge in bottom sheet (applicable to shear only)
SE2	Break at seam edge in the top sheet (applicable to shear only)
SE3	Break at seam edge in the bottom sheet (applicable to peel only)
AD-BRK	Break in first seam after some adhesion failure(top or bottom sheet)
BRK	Break in either upper or lower sheeting

SUMMARY OF DESTRUCTIVE TEST RESULTS  
 FUSION METHOD  
 MARK CARRONE  
 LYNDONVILLE DU PONT  
 NEW YORK

SAMPLE NUMBER	SHEAR		PEEL (1)		PEEL (2)		REMARKS
	STRENGTH (ppi)	BREAK CODE (3)	STRENGTH (ppi)	BREAK CODE (3)	STRENGTH (ppi)	BREAK CODE (3)	
DF-1	173.0	BRK	120.1	SE 1	122.6	SE 1	
	172.4	BRK	121.9	SE 1	121.6	SE 1	
	171.0	BRK	120.9	SE 1	120.6	SE 1	
	171.6	BRK	123.7	SE 1	121.7	SE 1	
	170.5	BRK	121.8	SE 1	122.3	SE 1	
DF-2	168.7	BRK	132.5	SE 1	141.2	SE 1	
	168.4	BRK	129.6	SE 1	119.9	SE 1	
	167.1	BRK	131.4	SE 1	116.9	SE 1	
	166.6	BRK	138.8	SE 1	129.2	SE 1	
	167.0	BRK	142.6	SE 1	117.3	SE 1	
DF-3	171.2	BRK	141.1	SE 1	128.1	SE 1	
	168.5	BRK	117.8	SE 1	123.3	SE 1	
	168.6	BRK	135.9	SE 1	126.8	SE 1	
	168.9	BRK	137.3	SE 1	126.9	SE 1	
	169.5	BRK	141.1	SE 1	125.8	SE 1	
DF-4	170.2	BRK	131.8	SE 1	128.9	SE 1	
	168.1	BRK	126.7	SE 1	129.3	SE 1	
	168.7	BRK	124.1	SE 1	129.2	SE 1	
	168.6	BRK	116.0	AD BRK (32%)	124.9	SE 1	
	168.4	BRK	122.9	SE 1	125.3	SE 1	
DF-5	172.2	BRK	121.9	SE 1	133.7	SE 1	Sample was too small to take the required number of specimens.
	170.8	BRK	125.6	SE 1	133.5	SE 1	
	172.4	BRK	152.7	SE 1	125.7	SE 1	
	171.7	BRK	139.0	SE 1	141.4	SE 1	
	-	-	142.7	SE 1	123.3	SE 1	
DF-6	173.8	BRK	115.8	SE 1	120.2	SE 1	
	173.4	BRK	152.9	SE 1	115.8	SE 1	
	172.9	BRK	135.5	SE 1	117.0	SE 1	
	172.4	BRK	117.1	SE 1	118.4	SE 1	
	173.1	BRK	115.1	SE 1	118.7	SE 1	
DF-7	151.3	BRK	126.7	SE 1	136.4	SE 1	
	154.7	BRK	135.1	SE 1	123.9	SE 1	
	152.0	BRK	120.5	SE 1	125.6	SE 1	
	154.8	BRK	123.1	SE 1	123.6	SE 1	
	151.5	BRK	119.1	SE 1	116.6	SE 1	

(1) PEEL (1) represents outer track or top flap.  
 (2) PEEL (2) represents inner track or bottom flap.  
 (3) BREAK CODES BASED ON MODES ILLUSTRATED IN ATTACHED FIGURE.

DFSUM





**Peel/Shear Testing-ASTM D6392  
Sample Report**

**Project:** Golder-Dupont, Lyndonville      **Date:** 6/30/2005  
**Project No:** 05-021      **Tested By:** JMA  
**Sample No.:** DF-08A      **Lab ID No.** 05-159  
**Weld Type:** Dbl Fusion      **Cross Head Speed, in/min:** 2  
**Temperature:** 77 deg F

**Peel Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld a	1	1.008	130	129.0	SE1
	3	1.019	117	114.8	SE1
	5	1.018	130	127.7	SE1
	7	1.025	123	120.0	SE1
	9	1.014	128	126.2	SE1
			125.6	123.5	

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld b	1	1.003	115	114.7	SE1
	3	1.017	112	110.1	SE1
	5	1.028	115	111.9	SE1
	7	1.026	112	109.2	SE1
	9	1.019	113	110.9	SE1
			113.4	111.3	

**Shear Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection	Extension @ Test End, in	Shear % Elongation
Weld a,b	2	1.004	173	172.3	BRK	1.49	149
	4	1.020	169	165.7	BRK	2.59	259
	6	1.018	183	179.8	SE1	6.91	691
	8	1.031	180	174.6	BRK	9.58	958
	10	1.015	178	175.4	BRK	4.95	495
	<b>Average</b>		176.6	173.5			

Rupture Mode Selection Key:	
AD	Adhesion Failure
BRK	Break in sheeting (top or bottom sheet)
SE1	Break in outer seam edge. Break can be in top or bottom sheet.
SE2	Break at inner seam edge through both sheets.
AD-BRK	Break in first seam after some adhesion failure (top or bottom sheet)
SIP	Separation in the plane of the sheet (top or bottom)

**Peel/Shear Testing-ASTM D6392  
Sample Report**

Project: Golder-Dupont, Lyndonville      Date: 6/30/2005  
 Project No: 05-021      Tested By: JMA  
 Sample No.: DF-08B      Lab ID No. 05-158  
 Weld Type: Dbl Fusion      Cross Head Speed, in/min: 2  
 Temperature: 77 deg F

**Peel Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld a	1	0.990	115	116.2	SE1
	3	0.898	109	121.4	SE1
	5	1.018	118	115.9	SE1
	7	0.996	113	113.5	SE1
	9	0.985	116	117.8	SE1
			114.2	116.9	

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld b	1	0.982	114	116.1	SE1
	3	0.996	108	108.4	SE1
	5	1.021	82	80.3	AD
	7	0.995	107	107.5	SE1
	9	0.998	108	108.2	SE1
			103.8	104.1	

**Shear Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection	Extension @ Test End, in	Shear % Elongation
Weld a,b	2	0.992	159	160.3	SE1	1.59	159
	4	0.999	157	157.2	BRK	7.07	707
	6	1.019	166	162.9	BRK	2.25	225
	8	1.014	155	152.9	BRK	4.99	499
	10	1.000	166	166.0	BRK	4.83	483
	Average		160.6	159.8			

Rupture Mode Selection Key:	
AD	Adhesion Failure
BRK	Break in sheeting (top or bottom sheet)
SE1	Break in outer seam edge. Break can be in top or bottom sheet.
SE2	Break at inner seam edge through both sheets.
AD-BRK	Break in first seam after some adhesion failure(top or bottom sheet)
SIP	Separation in the plane of the sheet (top or bottom)



**Peel/Shear Testing-ASTM D6392  
Sample Report**

<b>Project:</b> Golder-Dupont, Lyndonville	<b>Date:</b> 6/30/2005
<b>Project No.:</b> 05-021	<b>Tested By:</b> JMA
<b>Sample No.:</b> DX-01	<b>Lab ID No.:</b> 05-157
<b>Weld Type:</b> Extrusion	<b>Cross Head Speed, in/min:</b> 2
<b>Temperature:</b> 77 deg F	

**Peel Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection
Weld a	1	0.989	120	121.3	SE3
	3	0.994	126	126.8	SE3
	5	0.999	130	130.1	SE3
	7	0.997	125	125.4	SE3
	9	0.988	84	85.0	SE3
	<b>Average</b>		<b>117.0</b>	<b>117.7</b>	

**Shear Testing**

Weld No.	Specimen No	Specimen Width	Maximum Load, lbs	Max. Tension Value, lb/in	Rupture Mode Selection	Extension @ Test End, in	Shear % Elongation
Weld a	2	0.995	166	166.8	SE1	7.43	743
	4	1.002	160	159.7	BRK	6.83	683
	6	1.029	158	153.5	BRK	7.86	786
	8	0.996	152	152.6	BRK	6.53	653
	10	0.994	158	159.0	BRK	7.00	700
	<b>Average</b>		<b>158.8</b>	<b>158.3</b>			

Rupture Mode Selection	
Key:	
AD1	Adhesion Failure with % failure
SE1	Break at seam edge in bottom sheet (applicable to shear only)
SE2	Break at seam edge in the top sheet (applicable to shear only)
SE3	Break at seam edge in the bottom sheet (applicable to peel only)
AD-BRK	Break in first seam after some adhesion failure(top or bottom sheet)
BRK	Break in either upper or lower sheeting

**CERTIFICATE OF ACCEPTANCE  
OF CLAY LINER SURFACE BY INSTALLER**

Number 1

INSTALLER Chenango

PROJECT NO. 053-9437

NAME Joe Rendall

LOCATION Dupont Facility  
Lyndonville, New York

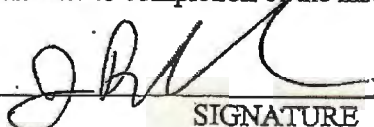
ADDRESS 29 Arbutus RD  
Johnson City NY 13790

PROJECT NAME Site Remediation

AUTHORIZED  
REPRESENTATIVE Joe Rendall

I, the Undersigned, duly authorized representative of CCT, do hereby accept the Soil Surface bounded by See ATTACHED FIGURE

and shall be responsible for its integrity and suitability, in accordance with the  project specifications from this date to completion of the installation.

		<u>Supv.</u>	<u>6-28-05</u>
NAME	SIGNATURE	TITLE	DATE

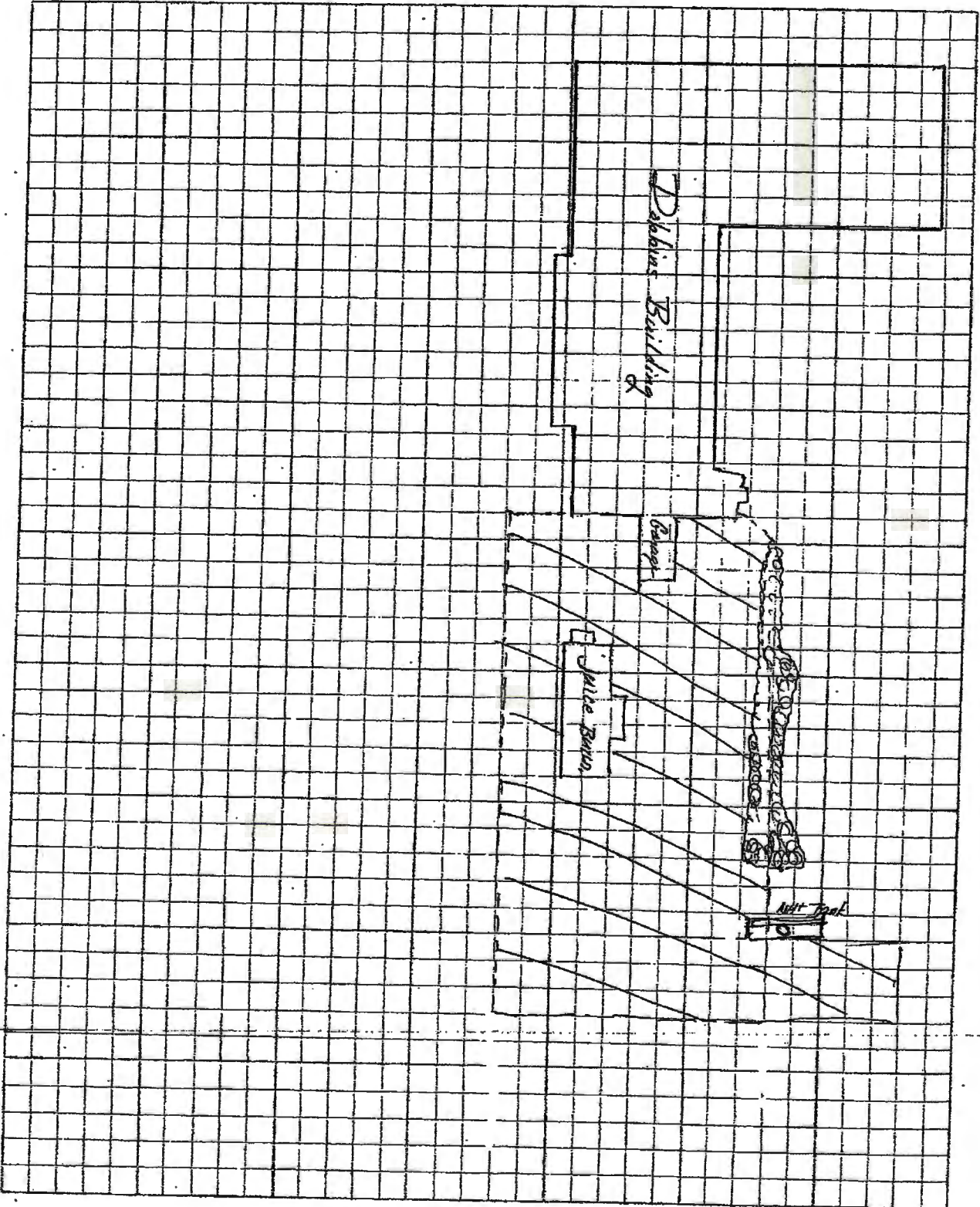
ACCEPTANCE ACKNOWLEDGED BY CQA MONITOR - COMPANY Golder Associates Inc.

<u>Michael Bracci</u>		<u>RE/OC</u>	<u>6/28/05</u>
NAME	SIGNATURE	TITLE	DATE



**Golder  
Associates**

SUBJECT <i>Geosynthetic Placement Map</i>		
Job No.	Made by <i>K.S. Wehn</i>	Date <i>6/16/2005</i>
Ref.	Checked	Sheet <i>1</i> of <i>1</i>
	Reviewed	





**APPENDIX F**  
**WASTE DISPOSAL LOGS**

**Lyndonville Cap Construction - WMI High Acres Landfill**

<b>Date Hauled</b>	<b>Manifest Number</b>	<b>Weight (ton)</b>	<b>Classification</b>	<b>Transporter</b>
5/27/2005	4229	9.44	Stumps/Non Haz	Brodie Trucking
5/27/2005	4230	10.94	Stumps/Non Haz	Brodie Trucking
5/27/2005	4231	13.04	Stumps/Non Haz	Brodie Trucking
5/27/2005	4232	10.57	Stumps/Non Haz	Duran Trucking
5/31/2005	4233	10.17	Stumps/Non Haz	Brodie Trucking
5/31/2005	4234	15.94	Stumps/Non Haz	Brodie Trucking
5/31/2005	4235	15.72	Stumps/Non Haz	Brodie Trucking
5/31/2005	4236	9.40	Stumps/Non Haz	Duran Trucking
5/31/2005	4237	11.61	Stumps/Non Haz	Brodie Trucking
5/31/2005	4238	9.71	Stumps/Non Haz	Brodie Trucking
5/31/2005	4239	9.94	Stumps/Non Haz	Brodie Trucking
5/31/2005	4240	10.57	Stumps/Non Haz	Duran Trucking
6/1/2005	4241	14.73	Stumps/Non Haz	Brodie Trucking
6/1/2005	4242	16.40	Stumps/Non Haz	Brodie Trucking
6/1/2005	4243	12.08	Stumps/Non Haz	Brodie Trucking
6/1/2005	4244	10.63	Stumps/Non Haz	Duran Trucking
6/1/2005	4245	9.07	Stumps/Non Haz	Duran Trucking
6/1/2005	4246	12.59	Stumps/Non Haz	Brodie Trucking
6/1/2005	4247	17.07	Stumps/Non Haz	Brodie Trucking
6/1/2005	4248	11.20	Stumps/Non Haz	Brodie Trucking
6/2/2005	4249	15.38	Stumps/Non Haz	Brodie Trucking
6/2/2005	4250	14.20	Stumps/Non Haz	Brodie Trucking
6/2/2005	4251	14.45	Stumps/Non Haz	Brodie Trucking
6/2/2005	4252	11.51	Stumps/Non Haz	Duran Trucking
6/2/2005	4253	16.21	Stumps/Non Haz	Brodie Trucking
6/2/2005	4254	8.90	Stumps/Non Haz	Brodie Trucking
6/2/2005	4255	11.66	Stumps/Non Haz	Brodie Trucking
6/2/2005	4256	10.33	Stumps/Non Haz	Duran Trucking
6/3/2005	4257	14.16	Stumps/Non Haz	Brodie Trucking
6/3/2005	4258	14.21	Stumps/Non Haz	Brodie Trucking
6/3/2005	4259	12.45	Stumps/Non Haz	Brodie Trucking
6/3/2005	4260	11.45	Stumps/Non Haz	Duran Trucking
6/3/2005	4261	8.10	Stumps/Non Haz	Brodie Trucking
6/3/2005	4262	9.94	Stumps/Non Haz	Brodie Trucking
6/3/2005	4263	8.56	Stumps/Non Haz	Brodie Trucking
6/3/2005	4264	10.98	Stumps/Non Haz	Duran Trucking
6/6/2005	4265	21.35	Stumps/Non Haz	Brodie Trucking
6/6/2005	4266	19.20	Stumps/Non Haz	Brodie Trucking
6/6/2005	4267	17.54	Stumps/Non Haz	Brodie Trucking
6/6/2005	4268	14.16	Stumps/Non Haz	Duran Trucking
6/8/2005	4228	0.11	Asbestos/Non Haz	Brodie Trucking
6/17/2005	4477	4.39	Cross Ties/Non Haz	Brodie Trucking
6/17/2005	4478	12.00	Cross Ties/Non Haz	Brodie Trucking
6/17/2005	4479	12.33	Cross Ties/Non Haz	Brodie Trucking
6/17/2005	4480	9.58	Cross Ties/Non Haz	Brodie Trucking
6/23/2005	4481	4.32	Cross Ties/Non Haz	Brodie Trucking
6/23/2005	4482	2.96	Cross Ties/Non Haz	Walck Bros.
6/23/2005	4483	2.28	Cross Ties/Non Haz	Walck Bros.
6/24/2005	4484	3.38	Cross Ties/Non Haz	Brodie Trucking
6/24/2005	4485	1.28	Cross Ties/Non Haz	Walck Bros.
7/22/2005	4273	6.15	Roll-off Debris/Non Haz	WMI
<b>Cumulative Total</b>		<b>564.34</b>		

Lyndonville Cap Construction  
Terry Tree Service, LLC

<b>Date Hauled</b>	<b>Truck Number</b>	<b>Weight (tons)</b>	<b>Classification</b>	<b>Transporter</b>
5/20/2005	821	3.76	Logs	Brodie Trucking
5/20/2005	821	2.24	Logs	Brodie Trucking
5/20/2005	821	3.36	Logs	Brodie Trucking
5/23/2005	821	3.12	Logs	Brodie Trucking
5/23/2005	821	2.90	Logs	Brodie Trucking
5/23/2005	821	4.18	Logs	Brodie Trucking
5/24/2005	821	6.35	Logs	Brodie Trucking
5/24/2005	818	5.35	Logs	Brodie Trucking
5/24/2005	821	5.48	Logs	Brodie Trucking
5/24/2005	818	5.51	Logs	Brodie Trucking
5/24/2005	821	2.75	Logs	Brodie Trucking
5/24/2005	818	3.00	Logs	Brodie Trucking
5/25/2005	817	3.82	Chips	Brodie Trucking
5/25/2005	821	4.10	Chips	Brodie Trucking
5/25/2005	821	3.73	Chips	Brodie Trucking
5/25/2005	817	3.96	Chips	Brodie Trucking
5/25/2005	821	6.50	Chips	Brodie Trucking
5/25/2005	817	4.64	Logs	Brodie Trucking
6/24/2005	821	0.59	Logs	Brodie Trucking
<b>Total</b>		<b>75.34</b>		



**Lyndonville Cap Construction  
NECCO Park**

<b>Date Hauled</b>	<b>Load ID</b>	<b>Classification</b>	<b>Est. Cubic Yards</b>
5/31/2005	LYN-001	Non Haz	16
5/31/2005	LYN-002	Non Haz	16
5/31/2005	LYN-003	Non Haz	16
5/31/2005	LYN-004	Non Haz	16
5/31/2005	LYN-005	Non Haz	16
5/31/2005	LYN-006	Non Haz	16
5/31/2005	LYN-007	Non Haz	16
5/31/2005	LYN-008	Non Haz	16
6/2/2005	LYN-009	Non Haz	16
6/2/2005	LYN-010	Non Haz	16
6/2/2005	LYN-011	Non Haz	16
6/2/2005	LYN-012	Non Haz	16
6/2/2005	LYN-013	Non Haz	16
6/2/2005	LYN-014	Non Haz	16
6/2/2005	LYN-015	Non Haz	16
6/2/2005	LYN-016	Non Haz	16
6/2/2005	LYN-017	Non Haz	16
6/2/2005	LYN-018	Non Haz	16
6/2/2005	LYN-019	Non Haz	16
6/6/2005	LYN-020	Non Haz	16
6/6/2005	LYN-021	Non Haz	16
6/6/2005	LYN-022	Non Haz	16
6/6/2005	LYN-023	Non Haz	16
6/6/2005	LYN-024	Non Haz	16
6/7/2005	LYN-025	Non Haz	16
6/8/2005	LYN-026	Non Haz	16
6/8/2005	LYN-027	Non Haz	16
6/8/2005	LYN-028	Non Haz	16
6/8/2005	LYN-029	Non Haz	16
6/8/2005	LYN-030	Non Haz	16
6/8/2005	LYN-031	Non Haz	16
6/8/2005	LYN-032	Non Haz	16
6/8/2005	LYN-033	Non Haz	16
6/8/2005	LYN-034	Non Haz	16
6/8/2005	LYN-035	Non Haz	16
6/8/2005	LYN-036	Non Haz	16
6/8/2005	LYN-037	Non Haz	16
6/8/2005	LYN-038	Non Haz	16
6/8/2005	LYN-039	Non Haz	16
6/8/2005	LYN-040	Non Haz	16
6/8/2005	LYN-041	Non Haz	16
6/8/2005	LYN-042	Non Haz	16
6/8/2005	LYN-043	Non Haz	16
6/8/2005	LYN-044	Non Haz	16
6/8/2005	LYN-045	Non Haz	16
6/8/2005	LYN-046	Non Haz	16
6/8/2005	LYN-047	Non Haz	16
6/8/2005	LYN-048	Non Haz	16
6/8/2005	LYN-049	Non Haz	16
6/9/2005	LYN-050	Non Haz	16

**Lyndonville Cap Construction  
NECCO Park**

6/9/2005	LYN-051	Non Haz	16
6/9/2005	LYN-052	Non Haz	16
6/9/2005	LYN-053	Non Haz	16
6/9/2005	LYN-054	Non Haz	16
6/9/2005	LYN-055	Non Haz	16
6/9/2005	LYN-056	Non Haz	16
6/9/2005	LYN-057	Non Haz	16
6/9/2005	LYN-058	Non Haz	16
6/9/2005	LYN-059	Non Haz	16
6/9/2005	LYN-060	Non Haz	16
6/9/2005	LYN-061	Non Haz	16
6/9/2005	LYN-062	Non Haz	16
6/9/2005	LYN-063	Non Haz	16
6/14/2005	LYN-080	Non Haz	16
6/14/2005	LYN-081	Non Haz	16
6/14/2005	LYN-082	Non Haz	16
6/14/2005	LYN-083	Non Haz	16
6/14/2005	LYN-084	Non Haz	16
6/14/2005	LYN-085	Non Haz	16
6/14/2005	LYN-086	Non Haz	16
6/14/2005	LYN-087	Non Haz	16
6/14/2005	LYN-088	Non Haz	16
6/14/2005	LYN-089	Non Haz	16
6/14/2005	LYN-090	Non Haz	16
6/14/2005	LYN-091	Non Haz	16
6/15/2005	LYN-092	Non Haz	16
6/16/2005	LYN-093	Non Haz	16
6/16/2005	LYN-094	Non Haz	16
6/16/2005	LYN-095	Non Haz	16
6/16/2005	LYN-096	Non Haz	16
6/16/2005	LYN-097	Non Haz	16
6/16/2005	LYN-098	Non Haz	16
6/16/2005	LYN-099	Non Haz	16
6/16/2005	LYN-100	Non Haz	16
6/16/2005	LYN-101	Non Haz	16
6/16/2005	LYN-102	Non Haz	16
6/16/2005	LYN-103	Non Haz	16
6/17/2005	LYN-104	Non Haz	16
6/17/2005	LYN-105	Non Haz	16
6/17/2005	LYN-106	Non Haz	16
6/20/2005	LYN-107	Non Haz	16
6/20/2005	LYN-108	Non Haz	16
6/20/2005	LYN-109	Non Haz	16
6/20/2005	LYN-110	Non Haz	16
6/20/2005	LYN-111	Non Haz	16
6/20/2005	LYN-112	Non Haz	16
6/20/2005	LYN-113	Non Haz	16
6/20/2005	LYN-114	Non Haz	16
6/20/2005	LYN-115	Non Haz	16
6/20/2005	LYN-116	Non Haz	16
6/20/2005	LYN-117	Non Haz	16

Based on survey data, 3,114 cubic yards of site materials were transported to Necco Park.