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File# 1424 B9

FINAL PLAN OF REMEDIAL ACTION

00 MOUNT VERNON STREET SITE

00 Mount Vernon Street
Smyrna, Delaware

October 23, 2008
DNREC Project No. DE-1424

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) determination that: 1) Benzo(a)pyrene is present in site soils above DNREC's residential and commercial risk-based standards. 2) The cumulative risk to human health due to benzo(a)pyrene is above acceptable levels.

DNREC issued public notice of the Proposed Plan for the Site on September 28, 2008 and opened a 20-day public comment period, which ended on October 18 2008. The Proposed Plan requires: 1) The removal of benzo(a)pyrene impacted soil. 2) The placement of an environmental covenant that will restrict the site to commercial use only. 3) The placement of a Groundwater Management Zone (GMZ) to prevent the installation of water supply wells without DNREC approval.

The Proposed Plan also includes the location of additional information found on the DNREC web page and in the DNREC office at Lukens Drive in New Castle.

There were no comments or questions from the public regarding the Proposed Plan. Therefore, the Proposed Plan was adopted as the Final Plan (see attached).

Approval:
This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.

Kathleen Stiller-Banning, Program Manager II
Division of Air and Waste Management

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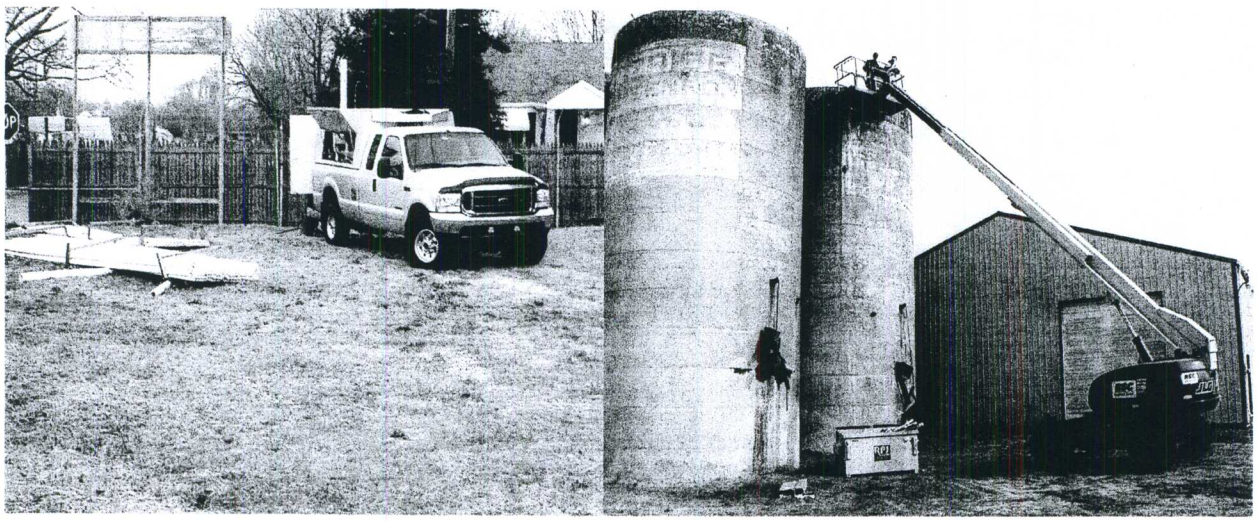
File 1424 B8

PROPOSED PLAN OF REMEDIAL ACTION

00 Mt. Vernon Street Site
Smyrna, Delaware
DNREC Project No. DE-1424



September 2008

Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
391 Lukens Drive
New Castle, Delaware 19720

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PROPOSED PLAN OF REMEDIAL ACTION

00 Mt. Vernon Street Site
Wilmington, Delaware
DNREC Project No. DE-1424

Approval:
This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

James D. Werner, Director
Division of Air & Waste Management

24 Sept 2008
Date

00 Mt. Vernon Street Site

What is the 00 Mt. Vernon Street Site?

The 00 Mount Vernon Street Property, located in Smyrna, Delaware is approximately 0.54-acres. The property was likely first developed prior to 1915 when it was used as a wood yard and has been maintained as a wood yard, a storage yard, and a coal storage and distribution company. Adjacent properties appeared to have been maintained as a railroad depot, residential, a feed mill and warehouses. The property is depicted on Figures 1 and 2.

Tax Parcel Numbers: DC 17-010.17-03-15.00
Address: 00 Mt. Vernon Street, Smyrna
Nearest major intersection: Mt. Vernon and New Streets
Area: 0.54 acres
Surrounding Property: Surrounding land use is commercial and residential
Zoning: Commercial
Site Utilities: Water and sewer service provided by the Town of Smyrna. Electric service provided by Delmarva Power.
Surface water: Lake Como is the nearest surface water body to the site, and is approximately 1,900 feet to the southeast of the site.
Topography: The Site surface is relatively flat and mostly covered with either grass or buildings.
Groundwater: Groundwater was encountered at depths ranging from approximately 16 to 28.8 feet bgs. No sheen was observed on the groundwater. Based on groundwater elevation measurements, groundwater beneath the site flows southeast, towards Lake Como.

What happened at the 00 Mt. Vernon Street Site?

The Site historically operated as wood storage yard and coal distribution company. The four silos on the property were used for coal storage. Routine coal distribution activities appeared to have resulted in the presence of coal fragments throughout the property.

What is the environmental problem at the 00 Mt. Vernon Street Site?

The contaminant of concern at the 00 Mt. Vernon Street Site in the soil is benzo(a)pyrene for restricted use (commercial). The contaminants for concern in the groundwater are pesticides, specifically chlordane, dieldrin, and heptachlor epoxide.

In March 2008 a Site Specific Assessment was conducted to evaluate the soil and ground water on the site. Eleven soil borings were advanced and 23 soil samples were collected. Six soil samples of the 23 soil samples were selected to be analyzed at Test America Laboratory in Edison.

Benzo(a)pyrene, was found in site soil. This contaminant exceeded the Restricted Use (commercial) Uniform Risk Based Standards (URS). The pesticides, chlordane, dieldrin, and heptachlor epoxide were found in groundwater samples collected under the property above their respective URS levels. Routinely ingesting shallow groundwater at the Site may pose both unacceptable carcinogenic and non-carcinogenic risks. However, groundwater at the site is not being used for drinking water. There is no evidence that the presence of these pesticides in the groundwater is attributable to site activities.

A human health risk assessment showed that exposure to surface site soil may pose an unacceptable non-carcinogenic risk under a restricted use (commercial) scenario. Surface and subsurface soil analytical data was used to evaluate the risk to future construction workers performing intrusive activities at the 00 Mt Vernon Site under current site conditions (prior to remediation). Both the cumulative carcinogenic and cumulative non-carcinogenic risk for the site do not exceeded DNREC guidelines.

What clean-up actions are needed at the 00 Mt Vernon Site?

DNREC's Proposed Plan includes hot spot removal during construction/redevelopment of the site to lower the risks posed by the elevated level of benzo(a)pyrene and the placement of a Groundwater Management Zone (GMZ) for the site to prevent exposure to the pesticides in the groundwater.

DNREC recommends the following remedial actions:

1) Removal of benzo(a)pyrene contaminated soil from hotspots areas
2) Implementation of an environmental oversight program, including an approved Contaminated Materials Management Plan, during redevelopment to protect workers and properly dispose of excavated soil;
3) Placement of an Environmental Covenant (EC), consistent with the Uniform Environmental Covenants Act (UECA) that will restrict the site for commercial use.
4) Place a GMZ on the property to prohibit the installation of water supply wells on the property.

What are the long term plans for the Site after the cleanup?

The developer has not finalized a development plan but potential future use includes commercial use and the development of an additional storage warehouse on the property.

DNREC plans to issue a Certificate of Completion of Remedy for the site after the completion of the proposed remedial actions at the site.

How can I find additional information or comment on the Proposed Plan?

The complete file on the site, including the Brownfield Remedial Investigation, is available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/

The 20-day public comment period begins on [date] and ends at close of business (4:30 pm) on [date 20 business days later]. Please send written comments to the DNREC office or call Babatunde Asere, Project Manager, at: 302-395-2600.

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Glossary of Terms
Used in this Proposed Plan

Brownfield	Property that is vacant or underutilized because of the perception or presence of an environmental problem.
Contaminant of Concern (COC)	These are potentially harmful substances at concentrations above acceptable levels (eg metals and PAH).
Certificate of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Final Plan of Remedial Action	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Human Health Risk Assessment (HHRA)	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
Proposed Plan of Remedial Action	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
Risk	Likelihood or probability of injury, disease, or death.
Site Specific Assessment (SSA) and Site Inspection (SI)	Environmental studies of a site including sampling of soils, groundwater, surface water, sediment and/or wastes on the property.

What is a *Proposed Plan?*

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean up of those environmental problems before DNREC takes action.

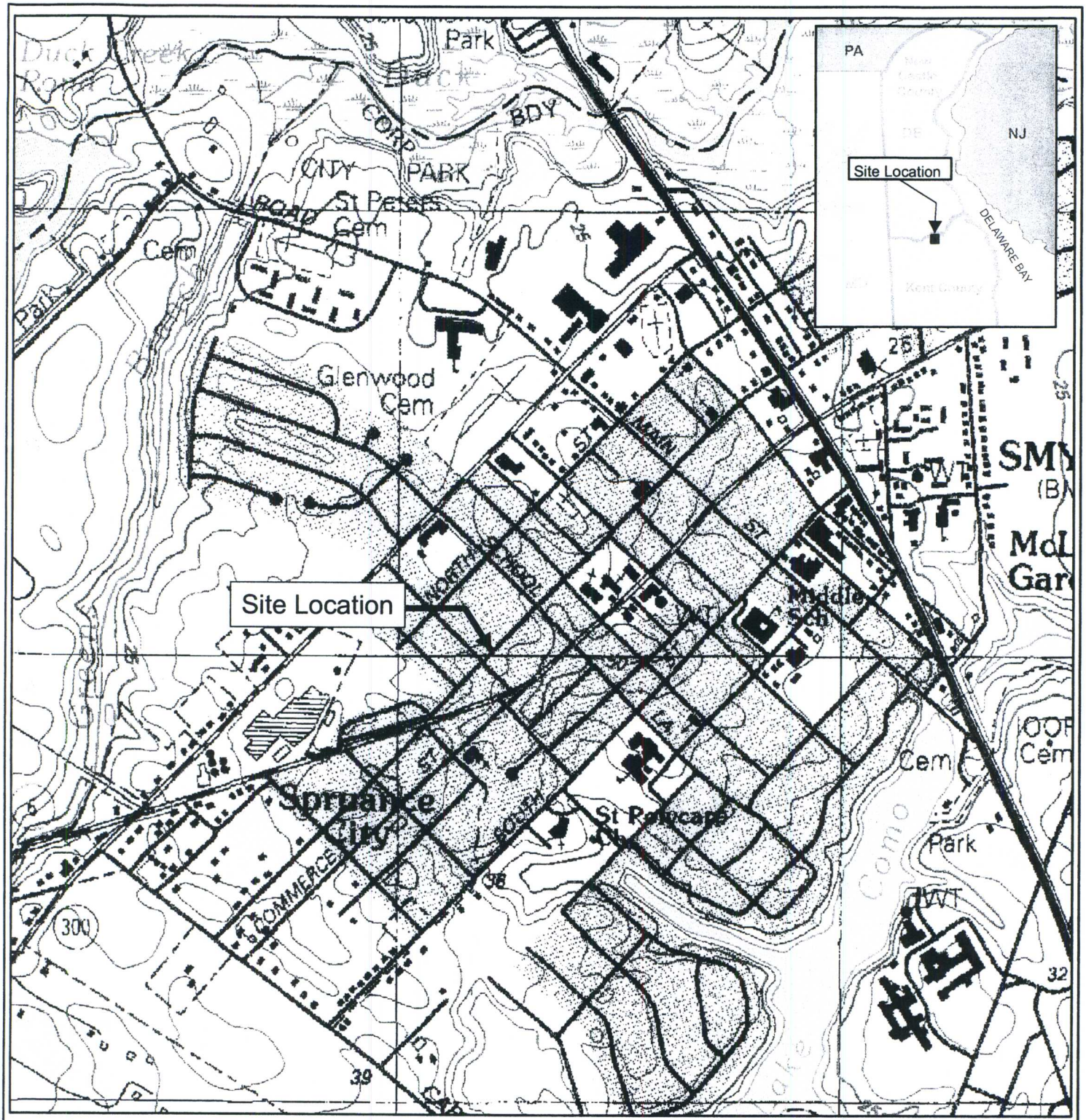
After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp .

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC did not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.



Site Location/Topographic Map

USGS Topographic Quadrangle, Smyrna, DE, 1993

00 Mount Vernon Street

Smyrna, Delaware

Figure 1

N

W E

S

1,000 500 0 1,000 Feet

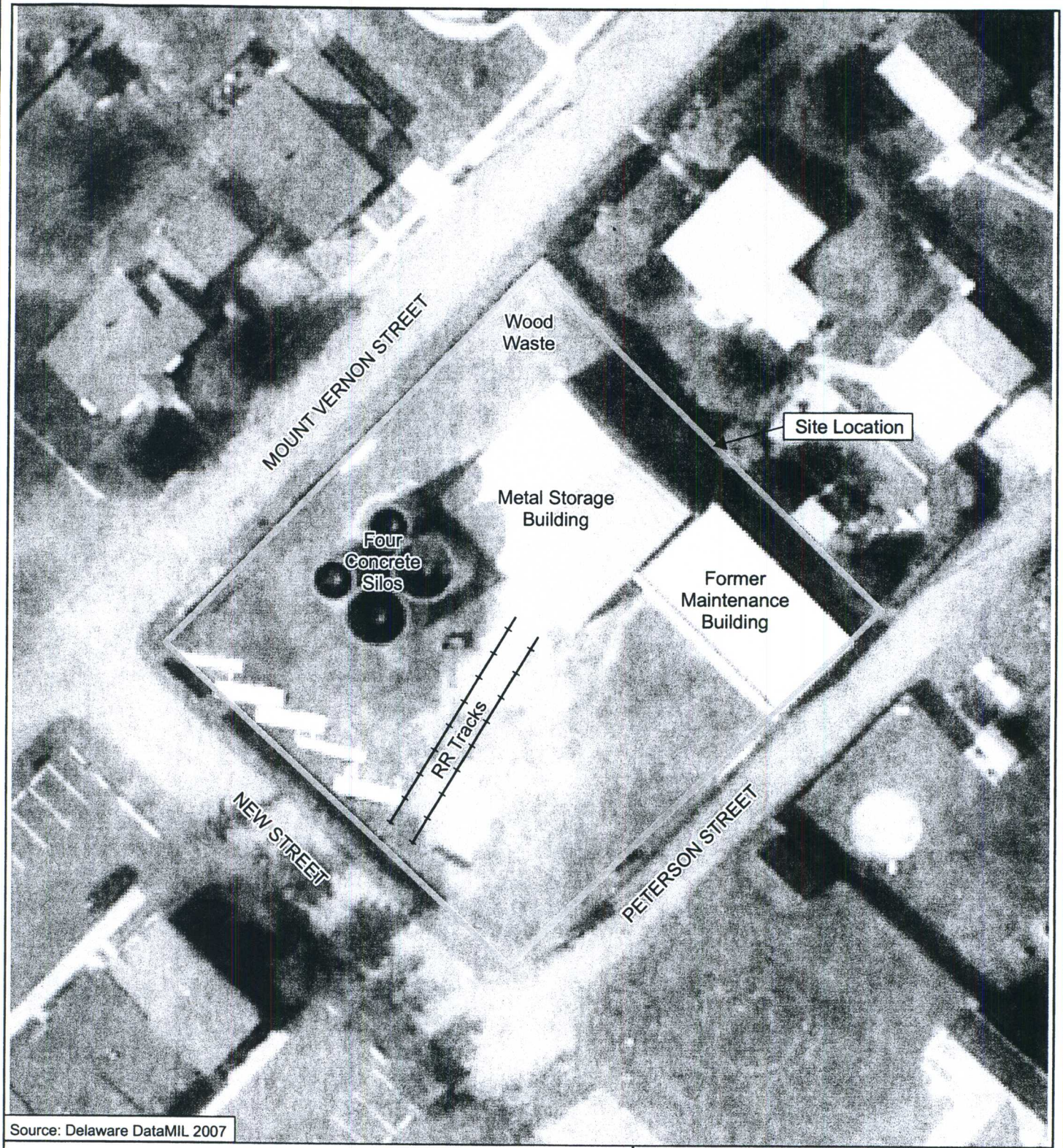


FIGURE 2
Site Features Map

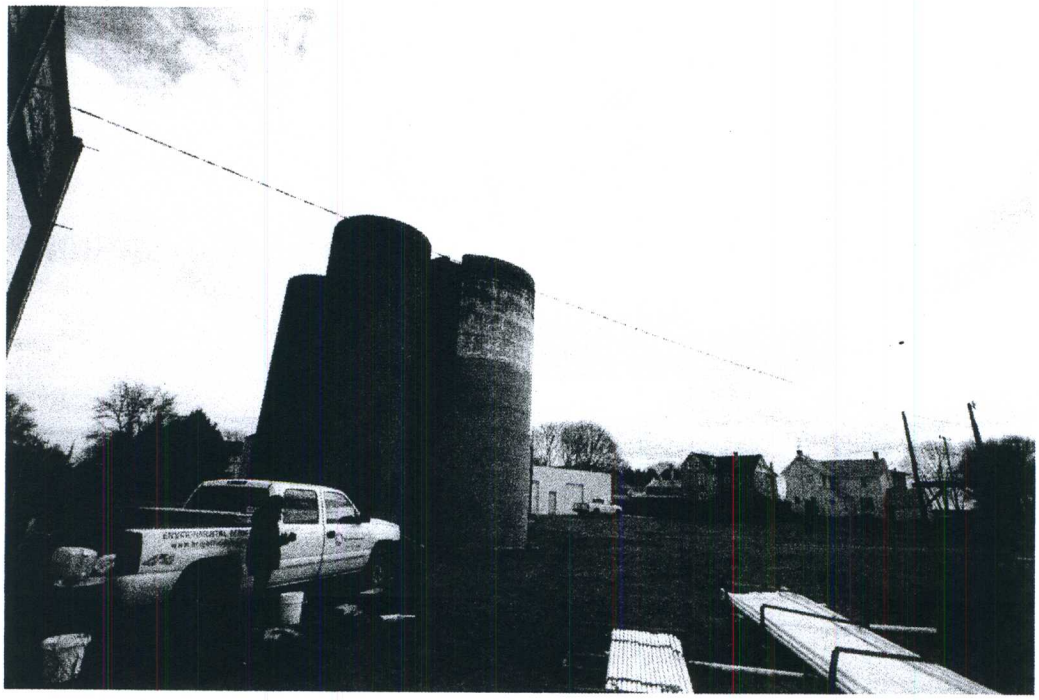
00 Mount Vernon Street

Smyrna, Delaware

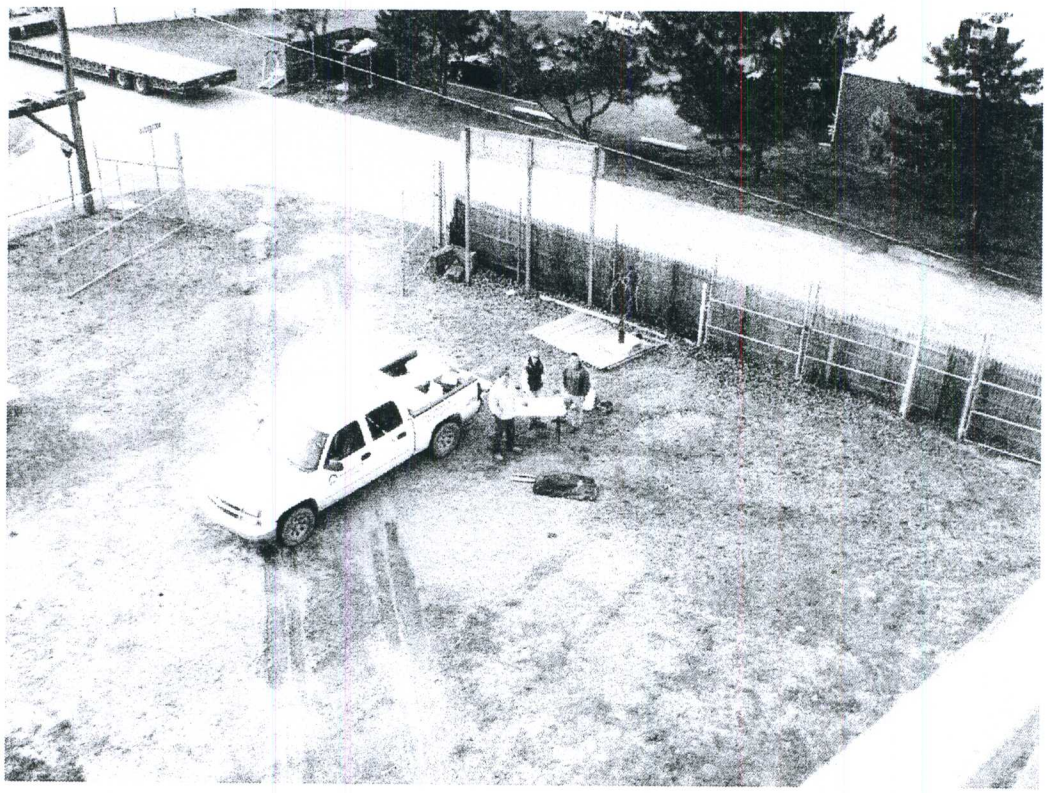
N
W E
S

40 20 0 40 Feet

Attachment 1 Site Photos
Proposed Plan of Remedial Action
00 Mt Vernon Street Site (DE-1424)
Wilmington, Delaware

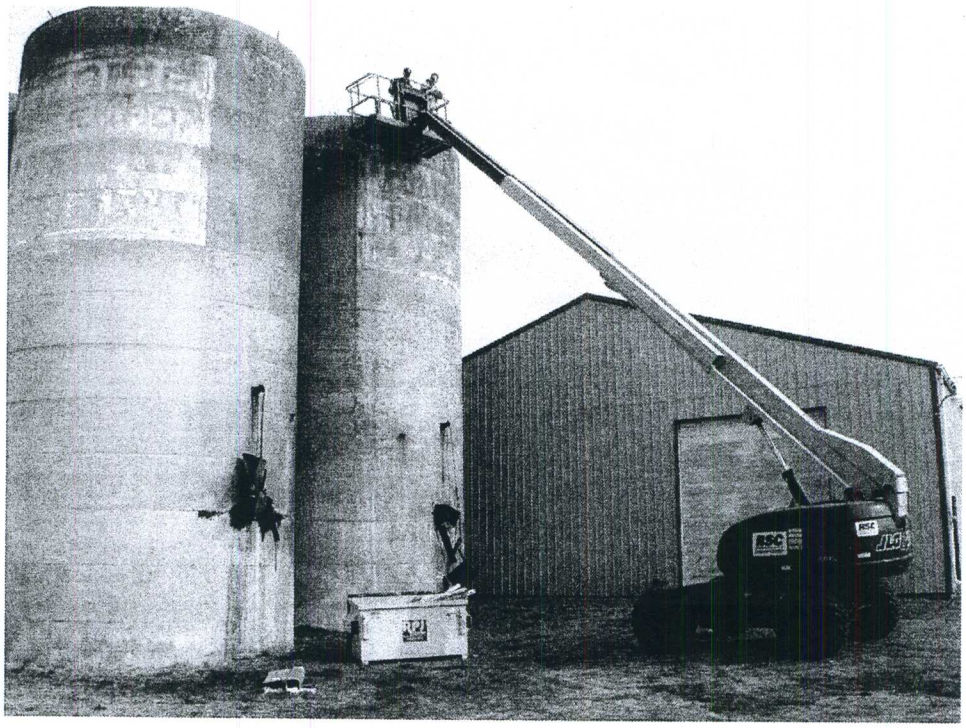


March 2008
00 Mt Vernon Street Site Showing Silos

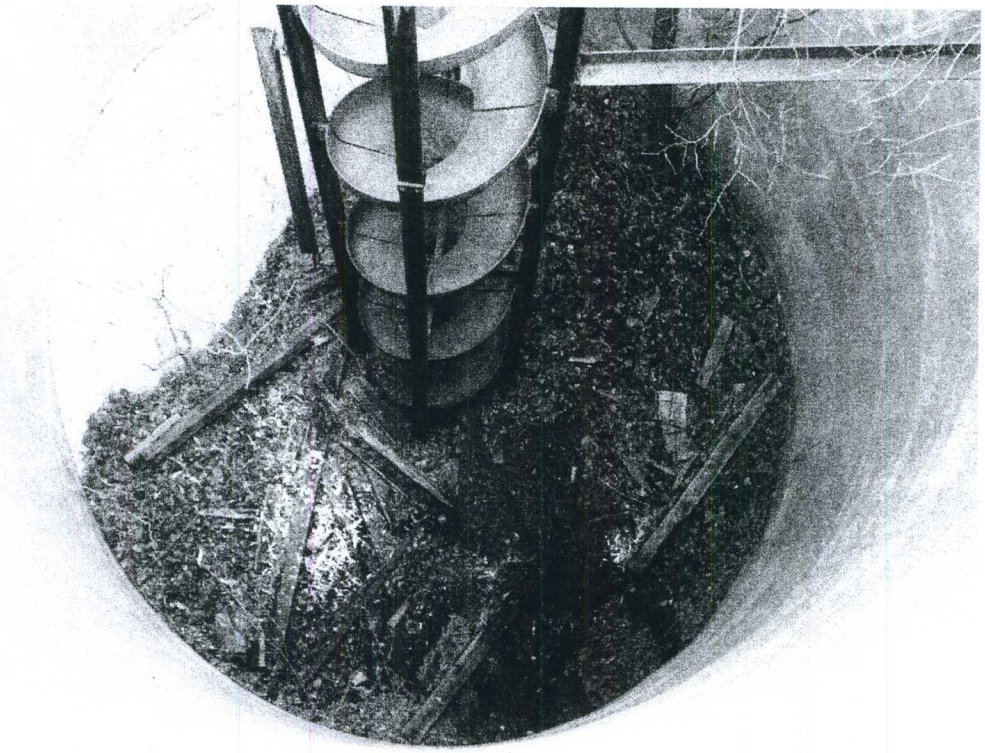


March 2008
View of the Site from the Silos

Attachment 1 Site Photos
Proposed Plan of Remedial Action
00 Mt Vernon Street Site (DE-1424)
Wilmington, Delaware



March 2008
Lift to View inside the Silos



March 2008
Inside one of the Silos