

JANUARY 24, 2006

**DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION**

**RCRA Corrective Action  
Environmental Indicator (EI) RCRIS code (CA725)  
Current Human Exposures Under Control**

**Facility Name:** Edmos Corporation  
**Facility Address:** Garvies Point Road, Glen Cove, NY  
**Facility EPA ID#:** NYD047648472

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

If yes - check here and continue with #2 below.

If no - re-evaluate existing data, or

If data are not available skip to #6 and enter IN (more information needed) status code.

**Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EIs developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

**Definition of Current Human Exposures Under Control EI**

A positive Current Human Exposures Under Control EI determination (AYE status code) indicates that there are no unacceptable human exposures to contamination (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all contamination subject to RCRA corrective action at or from the identified facility [i.e., site-wide]).

**Relationship of EI to Final Remedies**

While Final remedies remain the long-term objectives of the RCRA Corrective Action program the EIs are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, (GPRA). The Current Human Exposures Under Control EI is for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action programs overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

**Duration / Applicability of EI Determinations**

EI Determination status codes should remain in the RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **Acontaminated**<sup>1</sup> above appropriately protective risk-based **Alevels**<sup>2</sup> (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater	✓			Chlorinated organic compounds, primarily solvents, from the adjacent Mattiace property. Mattiace has an active groundwater pump & treat system in place on its property, with extraction points located at the most contaminated areas to provide management of migration.
Air (indoors) <sup>2</sup>		✓		Two separate sampling events were conducted by EPA and evaluated by NYSDOH. NYSDOH concluded that indoor air sampling would not be required, based on the sampling results. Due to renewed interest in soil gas as a potential pathway at contaminated sites, additional sub slab testing is proposed for the end of calendar year 2007, to confirm whether or not soil gas from Mattiace could be a potential problem for Edmos, which is adjacent to Mattiace.
Surface Soil (e.g., <2 ft)		✓		
Surface Water		✓		
Sediment		✓		
Subsurf. Soil (e.g., >2 ft)		✓		
Air (outdoors)		✓		

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If no (for all media) - skip to #6, and enter **AYE**,@status code after providing or citing appropriate **Alevels**,@ and referencing sufficient supporting documentation demonstrating that these **Alevels**@are not exceeded.

✓

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If yes (for any media) - continue after identifying key contaminants in each **Acontaminated**@medium, citing appropriate **Alevels**@(or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

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If unknown (for any media) - skip to #6 and enter **AIN**@status code.

**Reference(s):**

- *Final Remedial Investigation Report, Mattiace Petrochemical Site, Operable Unit One*, Ebasco Services Incorporated, April 1991;
- ROD for Mattiace Petrochemical Co., Inc., EPA Regional Administrator Constantine Sidamon-Eristoff (1991);
- Pollution Report (POLREP) for Mattiace Petrochemical Site, prepared by Dwayne Harrington, EPA On-Scene Coordinator, March 31, 1992.
- *Effectiveness/Environmental Monitoring Data Report for Operable Units 3 and 4, Mattiace Petrochemical Superfund Site*, TRC Companies, Inc., May 2004.
- *Effectiveness/ Environmental Monitoring Data Report for Operable Units 3 and 4, Mattiace Petrochemical Site, Glen Cove, Nassau County, New York*, TRC Companies, Inc., June 2005.
- 09/15/06 e-mail message from Ed Als, EPA Remedial Project Manager for Mattiace, to Carol Stein, EPA RCRA Project Manager for Edmos.
- *Five-Year Review Report for Mattiace Superfund Site Glen Cove, Nassau County, New York*, US Environmental Protection Agency Region II, September 2005.

## **BACKGROUND**

### **Site Description:**

This former hazardous waste management facility is located on Garvies Point Road, in Glen Cove, Nassau County, New York (Figures 1 and 2). Adjacent to the east of Edmos is the Mattiace Petrochemicals Superfund Site, and to the north of Edmos is the Garvies Point Preserve (a nature preserve). Beyond the Preserve, approximately ¼ mile from Edmos, is residential housing as well as the Landing Elementary School. To the south of Edmos (on the other side of Garvies Point Road) is Glen Cover Creek, which empties into Hempstead Harbor. The downtown area of Glen Cove is approximately four-tenths of a mile west of the facility.

The Edmos facility occupied part of a 1-story brick building and parking lot area, approximately one acre in size. Edmos manufactured textiles, and it stored and treated hazardous wastes. The facility had one 15,000 gallon above-ground storage tank for flammable solvent storage. The facility also had a 48,000 gallon per day treatment unit. The Edmos property currently is occupied by several small industrial tenants, including Circle Lubricants. On October 24, 1990, a 12 foot concrete retaining wall at the adjacent Mattiace facility collapsed, allowing contaminated soils to spill onto a paved parking lot at the Edmos property. Any soil spillage from Mattiace onto the Edmos parking lot subsequently was removed.

There are two discrete aquifers in the Glen Cove region – the Upper Glacial and Lloyd Aquifers. According to the *Five-Year Review Report for Mattiace Superfund Site* (September 2005), the clay portions of the Raritan Formation and the Port Washington

unit form an effective confining unit which separates the Lloyd Aquifer (potable water supply) from the Upper Glacial Aquifer. As Glen Cove's municipal water supply system taps the deeper Lloyd aquifer in excess of 250 feet below mean sea level (MSL), the geologic information indicates that it is protected from the contamination in the Upper Glacial aquifer.

Site Responsibility and Legal Instruments:

The facility was regulated by EPA's RCRA hazardous waste program under the standards specified in 40 CFR Part 265, for interim status facilities. A Part A permit application (for interim status) was received by EPA on June 1, 1981, and a withdrawal request determination was approved by EPA on October 1, 1981.

The source of any groundwater contamination at Edmos is understood to be from the former Mattiace Petrochemical Site, which was adjacent to Edmos. The remedy for the groundwater contamination from the adjacent Mattiace Petrochemical Site is the responsibility of EPA's Superfund Program. No other remedies are anticipated to be needed for the Edmos property.

**Potential Threats and Contaminants:**

**Contaminants:** Chlorinated organic compounds in the groundwater, primarily solvents, from the adjacent Mattiace property.

**Potential Threats From Contaminated Groundwater:**

None. The Edmos property is not the source of groundwater contamination. The groundwater under the former Edmos property is contaminated, allegedly due to the heavy groundwater contamination from the adjacent Mattiace property. The Mattiace groundwater remediation system serves to contain the source of the contamination. All nearby residents are on public water supplies. There are upgradient municipal wells approximately one mile away.

Additionally, as noted above, the geologic information indicates that the drinking water aquifer (Lloyd) is protected from vertical migration of contaminated groundwater in the Upper Glacial aquifer.

**Potential Threats From Contaminated Soil:**

There is no current threat from contaminated soil at Edmos. When the retaining wall from Mattiace collapsed onto the Edmos property, it fell onto a paved parking lot, and not directly onto the soil. The soil at Edmos was not disrupted from this incident.

**Potential Threats From Contaminated Sediment:**

None.

**Potential Threats From Indoor Air Contamination:**

As noted above, two separate sampling events were conducted by EPA and evaluated by

NYSDOH, regarding potential contamination from the adjacent Mattiace facility. NYSDOH concluded that indoor air sampling would not be required at that time, due to the very low concentrations of volatile organic compounds in the soil gas. However, due to renewed interest in soil gas as a potential pathway at contaminated sites, additional sub slab testing is proposed for the end of calendar year 2007, to confirm whether or not soil gas from Mattiace could potentially impact nearby indoor environments, including the building formerly occupied by Edmos.

Footnotes:

<sup>1</sup> Acontamination@ and Acontaminated@ describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based Alevels@ (for the media, that identify risks within the acceptable risk range).

<sup>2</sup> Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

- Are there **complete pathways** between Acontamination@ and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

**Summary Exposure Pathway Evaluation Table**

Potential **Human Receptors** (Under Current Conditions)

<b><u>AContaminated@ Media</u></b>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food <sup>3</sup>
Groundwater	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>
Air (indoors)*	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>
Soil (surface, e.g., <2 ft)	==	==	==	==	==	==	==
Surface Water	==	==	==	==	==	==	==
Sediment	==	==	==	==	==	==	==
Soil (subsurface e.g., >2 ft)	==	==	==	==	==	==	==
Air (outdoors)	==	==	==	==	==	==	==

Instructions for Summary Exposure Pathway Evaluation Table :

- Strike-out specific Media including Human Receptors= spaces for Media which are not Acontaminated@ as identified in #2 above.**
- enter Ayes@ or Ano@ for potential Acompleteness@ under each AContaminated@Media -- Human Receptor combination (Pathway).
- Indirect Pathway/Receptor (e.g. vegetables, fruits, crops, meat and dairy products, fish shell fish, etc.)

Note: In order to focus the evaluation to the most probable combinations some potential Contaminated Media - Human Receptor combinations (Pathways) do not have check spaces (A\_\_\_@). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter @YE@ status code, after explaining and/or referencing condition(s) in place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

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If yes (pathways are complete for any Contaminated Media - Human Receptor combination) - continue after providing supporting explanation.

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If unknown (for any Contaminated Media - Human Receptor combination) - skip to #6 and enter AIN@ status code.

**Rationale:**

There is no impact of contaminated groundwater to drinking water supplies because there are no private potable water supplies that use the groundwater. The indoor air pathway has been evaluated, and no discernable impact has been found. It is anticipated that this conclusion will be reevaluated at this and other sites toward the end of calendar year 2007, due to the overall renewed interest in potential indoor air pathways at RCRA and Superfund sites.

**Reference:**

- *Five-Year Review Report for Mattiace Superfund Site Glen Cove, Nassau County, New York*, US Environmental Protection Agency Region II, September 2005.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **Asignificant**<sup>4</sup> (i.e., potentially **Aunacceptable**@ because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable **Alevels**@ (used to identify the **Acontamination**@; or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable **Alevels**@ could result in greater than acceptable risks)? N/A

\_\_\_\_\_ If no (exposures can not be reasonably expected to be significant (i.e., potentially **Aunacceptable**@ for any complete exposure pathway) - skip to #6 and enter **A YE**@ status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to **Acontamination**@ (identified in #3) are not expected to be "significant".

\_\_\_\_\_ If yes (exposures could be reasonably expected to be **Asignificant**@ (i.e., potentially **Aunacceptable**@ for any complete exposure pathway) - continue after providing a description (of each potentially **Aunacceptable**@ exposure pathway)

providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

<sup>4</sup> If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5. Can the "significant" exposures (identified in #4) be shown to be within acceptable limits? N/A

\_\_\_\_\_ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing **and referencing** documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

\_\_\_\_\_ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Edmos facility, EPA ID # NYD047648472, located at Garvies Point Road, Glen Cove, NY under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

\_\_\_\_\_ NO - "Current Human Exposures" are NOT "Under Control."

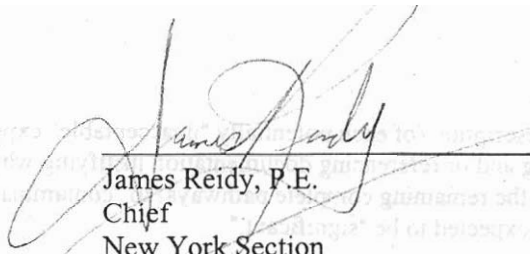
\_\_\_\_\_ IN - More information is needed to make a determination.

Completed by:

Carol Stein Date: 1/29/07

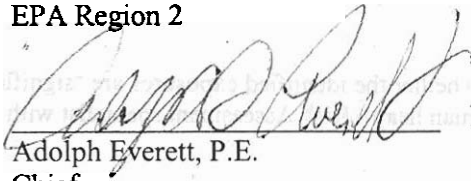
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 Date: 2/1/07

Adolph Everett, P.E.  
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**Locations where references may be found:**

Superfund Fileroom, 290 Broadway, 18 <sup>th</sup> Floor, New York, NY 10007-1866
EPA Region 2 RCRA Record Center 290 Broadway, 15th Floor New York, NY 10007-1866

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**FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.**



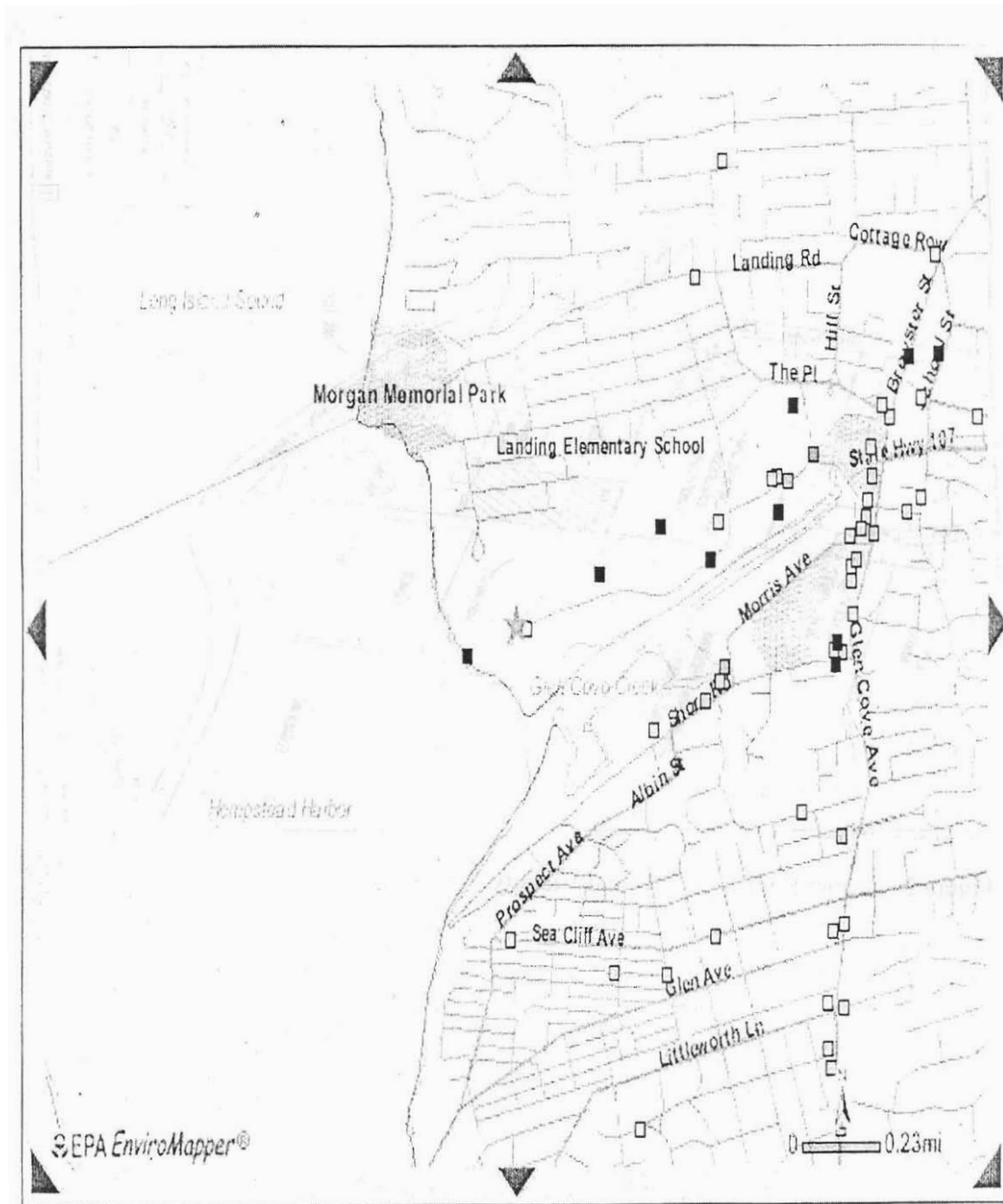


Figure 1 – Edmos Corp. - General Site Area

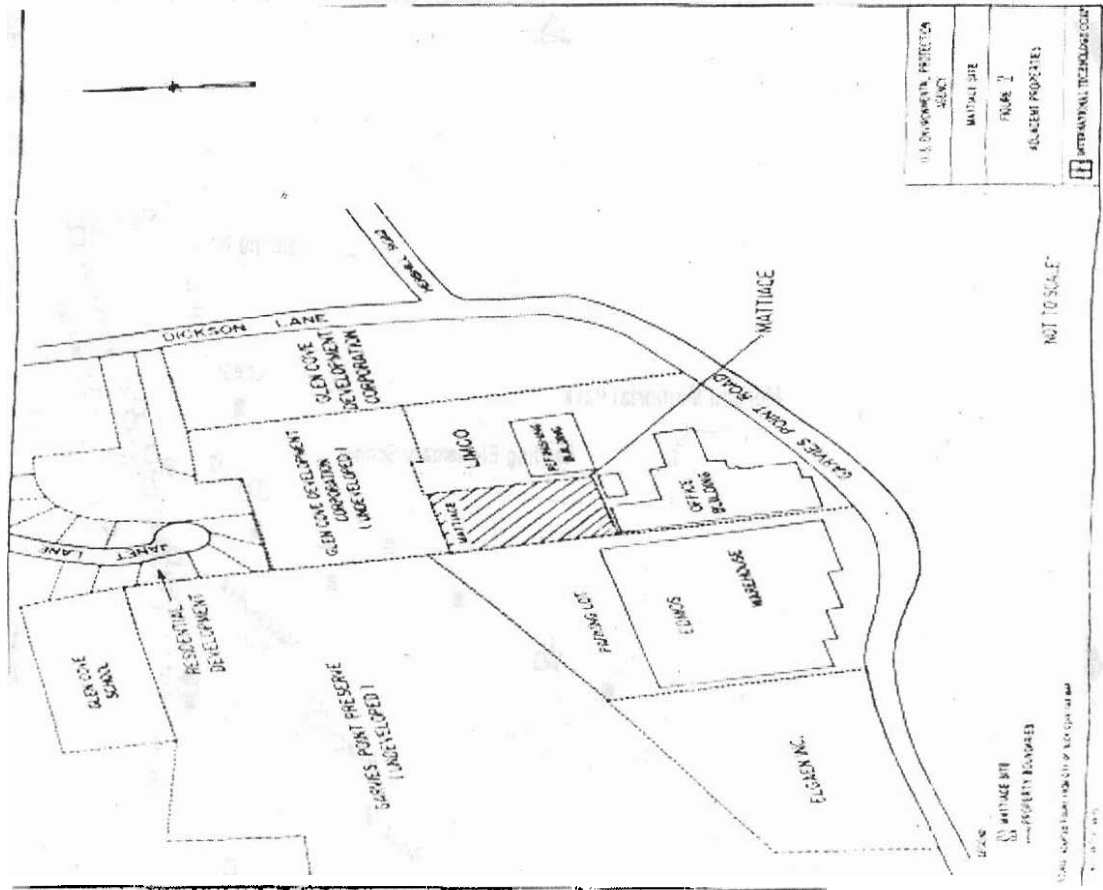


Figure 2- Former Edmos Facility and Vicinity