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Environmental Site Assessment
Equine-Stellar Corp.
131 Sunnyside Boulevard
Plainview, NY

Volume 1 of 4

April 29, 2004

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Project # 03150

"Your Environmental Partner"

Phase II and Phase III
Environmental Site Assessment
Equine-Stellar Corp.
131 Sunnyside Boulevard
Plainview, NY

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Environmental Site Assessment
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1.0 Executive Summary

Anson Environmental Ltd. (AEL) performed an Environmental Site Assessment (ESA) at 131 Sunnyside Boulevard, Plainview, New York beginning in August 2003. United Stellar Industries Corp. and its successor company Equine-Stellar Corp. occupied the subject property from the late1950s until the company's closure in 2002. Equine-Stellar maintained United States Environmental Protection Agency (EPA) issued generator numbers NYD 055323760 and NYT 1370011876 because Equine-Stellar used and stored hazardous materials and generated and stored hazardous wastes.

The three major purposes of the ESA were to perform

1. the due diligence associated with purchasing industrial real estate,
2. the underground injection control (UIC) investigation necessary to obtain permits to operate UIC structures, and
3. a closure of the EPA generator's permit for the site.

The ESA investigations were performed in a stepwise fashion beginning with a Phase I ESA to satisfy the due diligence associated with industrial real estate and it lead to Phase II and Phase III investigations, an asbestos survey, UIC closure plan for drywells and sanitary pools, Resource Conservation and Recovery Act (RCRA) closure plan and mold sampling.

The Phase I ESA was performed in compliance with American Society of Testing Materials (ASTM) Standard 1527-00. The Phase II investigation consisted of soil sampling inside and outside the building. Sampling locations were chosen: at random; based on the identification of anomalous subsurface conditions identified during a ground penetrating radar survey and in at four drywells finished at grade. Following remediation, all sampling locations meet the TAGMs.

The UIC closure plan was performed by using a video camera to investigate the piping associated with the underground structure and subsequent sampling of the drywells and sanitary pools located on-site. Samples collected were analyzed following EPA laboratory analytical protocols for method 8260 (volatile organic compounds), method 8270 (semi-volatile organic compounds) and Nassau County metals. Laboratory data were compared to the New York State Department of Environmental Conservation Division of Hazardous Waste Remediation Division Technical and Administrative

Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM). Where soils exceeded TAGM levels, soil was excavated and disposed of off-site. Representatives of the building owner disposed of contaminated soils and the wastes disposal manifests are in Appendix 14. Following soil excavation, endpoint soil samples were collected and submitted for laboratory analysis and demonstrated that endpoint samples were below the TAGMs.

The UIC investigation was coordinated with the Nassau County Department of Health (NCDH). This agency represents the EPA on UIC investigations in Nassau County, New York. Following remediation, all the drywells and sanitary pools meet the TAGMs.

Closure of the EPA generator's identification number required sampling of the areas where hazardous materials were used or stored on-site. The area(s) where hazardous wastes were stored were also investigated. Soil samples were collected and submitted for laboratory analysis using EPA laboratory analytical protocols for method 8260 (volatile organic compounds), method 8270 (semi-volatile organic compounds) and RCRA metals. Laboratory data were compared to the TAGMs.

During remediation, the soils that did not meet the TAGMs were excavated and the contaminated soils were disposed of off-site. Following excavation, endpoint soil samples were collected to demonstrate that the remaining soils meet or were below the TAGMs.

Asbestos containing materials identified inside the building have been removed. Waste manifests are in Appendix 15 of this report.

Mold contaminated building materials have been removed during building renovations. All of these materials were disposed of off-site and waste manifests were not required.

2.0 Introduction

Anson Environmental Ltd. (AEL) was retained to perform an ESA at 131 Sunnyside Boulevard, Plainview, New York. The purposes of the ESA were to satisfy the due diligence associated with purchasing an over 50 year old industrial site, to obtain the EPA issued permit require to operate UIC structures and to close the EPA generator's identification numbers associated with the site.

The ESA identified that the tenant, Equine-Stellar, Inc., had used hazardous materials in their metal stamping, painting and metal cleaning business. As a result of these operations and the site reconnaissance conducted by AEL, several recognized environmental conditions were identified in the Phase I ESA report.

In approximately the late 1950's and early 1960's, Equine-Stellar, Inc. operated chromate and alodine plating lines that resulted in numerous notices of violation from the Nassau County Department of Health (NCDH). After several attempts to bring the plating line into compliance with regulations, Equine-Stellar, Inc. dismantled the plating operation.

The New York State Department of Environmental Conservation (NYSDEC) inspected the Equine-Stellar, Inc. operation most recently on April 9, 2002. No violations were noted during that visit and the inspection report noted that Equine-Stellar, Inc. was a small quantity generator of hazardous waste, following a review of the most recent filings of the hazardous waste disposal records. The small quantity generator classification of Equine-Stellar, Inc. does not require a closure report under federal and state regulations.

The EPA assigns generator identification numbers to locations that use or generate hazardous materials. Typically, only one generator identification number is assigned to each address. The 131 Sunnyside Boulevard address has two such numbers that are NYD055323760 and NYT370011876. Neither of the numbers has been closed even though Equine-Stellar, Inc. discontinued operations at 131 Sunnyside Boulevard several years earlier. However, documentation will be presented to the agencies that the use or generation of hazardous materials has discontinued so the EPA generator identification numbers are closed.

During the initial site visit, AEL observed drums of oils and solvents, four drywells, floor drains and abandoned sanitary systems. The paint spray booth and concrete block paint storage room are located inside the manufacturing area of the original building. These observations combined with a review of regulatory agency files lead to the recommendation that a Phase II Environmental Site Assessment be performed.

The limited Phase II included sampling: 1) the four drywells in the parking lot and driveway, 2) the floor drain in the hazardous material storage room, 3) through the concrete patches in the floor, 4) the mold growing on the interior of the building, and 5) the suspected asbestos containing building materials.

Laboratory analysis of soil and sediment samples collected from the drywells, floor drain and patched concrete identified concentrations of chromium and other metals that exceeded the NYSDEC Technical Administrative Guidance Memorandums (TAGMs) for these compounds. In addition, the drywell investigation identified underground pipes entering these drywells and the floor drain. The termination of these pipes was unknown, so a video camera was snaked through the pipes to trace them. This investigation resulted in the identification of several drywells that were finished below grade.

The locations where hazardous materials were used or stored are identified on Figure2. The flooring and soil under the flooring were sampled and analyzed using EPA methods 8260 and 8270 and RCRA metals. Laboratory analytical data were compared to the New York State TAGMs. Where the soils did not meet the TAGMs, it was removed from the site and disposed of off-site.

3.0 Site History

The Equine Stellar Corp. property at 131 Sunnyside Boulevard is located south of the Long Island Expressway on the eastern side of Sunnyside Boulevard in Plainview, Town of Oyster Bay (Figure 1). Mr. William Seitz provided access to the subject property to allow a visual inspection of the property including interior building spaces, the exterior property, and surrounding properties.

On August 25, 2003, Dean Anson of Anson Environmental Ltd. (AEL) observed the 3.3 acres site that is composed of two lots. The site is occupied by two buildings that were attached by additions during the 1960's to the building whose address is 131 Sunnyside Boulevard.

The two-story building is "L" shaped and constructed of concrete block (Figure 2). The building is oriented in a southeast/northwest direction. The front (northwestern side) of the building is located on Sunnyside Boulevard. The southwestern side of the building is located on Terminal Drive.

The building has only been occupied by Equine-Stellar Corp. to manufacture metal parts for the aerospace industry, bicycles and other metal structures. During the manufacturing process, hazardous materials were used to degrease the metal parts and to subsequently paint those parts. No documentation was observed that the spent degreasers and other hazardous materials were properly disposed of off site, however, according to Mr. Seitz, those records are available.

Because hazardous materials were used on site and these materials had to be disposed of off site, EPA generator identification number of NYD055323760 was assigned to the site. Because the operations on-site were discontinued recently, the records have been removed from the site so no hazardous waste manifests could be reviewed. The New York State Department of Environmental Conservation reviewed the operations in April 2002 and did not find any violations.

During the performance of work on-site, hazardous materials were used, including degreasers, paints and thinners. Until September of 2003, remnants of those chemical compounds remained including drums of raw materials, wastes and stains on the floor and the parking lot.

A review of the NCDH file for the site identified several areas of environmental concern including: (1) plating operations that took place on site in the late 1950s and early 1960's and illegal discharges to the ground from those operations, (2) storage and usage of hazardous materials and (3) storage of hazardous wastes on-site prior to disposal off-site.

Therefore, a limited Phase II Environmental Site Assessment was performed to investigate the following areas:

1. Inside the rear overhead door where drums of wastes and raw materials were stored.
2. The floor drain in the hazardous materials storage area.
3. Three drywells located in the rear parking lot where wastes were previously stored.
4. The drywell located in the driveway adjacent to the side door near the former manufacturing area of Equine Stellar.
5. The stained concrete floor in the former manufacturing area.
6. The concrete floor in the former hazardous materials storage area.
7. The paint spray booth and paint storage area located near the manufacturing area.

The following were identified during the limited Phase II investigation:

1. Concentrations of chromium were above TAGM levels in all the samples collected from below the building floor, in drywells and in the floor drain.
2. Additional drywells and cesspools have been located on site. These structures needed to be sampled to determine if they are contaminated.
3. An Underground Injection Control Program work plan needs to be developed to address the contamination in the drywells.
4. Mold contamination was identified on the walls and ceiling of the building.
5. A RCRA Closure Plan needs to be developed and implemented to properly close the USEPA identification numbers.
6. Asbestos-containing building materials were identified in the building.

4.0 Underground Injection Control Program Investigation

During the limited Phase II Environmental Site Assessment, four drywells were identified. These drywells were designated DW1, DW2, DW3 and DW4. One floor drain in the hazardous materials storage room was designated 23B1. The floor drain designated, 23B1, was subsequently identified as DW16. The sediment in the five structures were sampled and submitted for laboratory analysis. Based on the laboratory data a underground injection control (UIC) plan (Appendix 1), was developed and submitted to the Nassau County Department of Health, the government agency responsible for administering the UIC program on behalf of the US Environmental Protection Agency.

Drywells and drains inside and outside the building were investigated using a video camera to identify the terminus of pipes located in the drywells and drains. The camera was also used to determine which of these structures are interconnected. This investigation determined that some of the drywells were not finished at grade, therefore, a backhoe was used to excavate them to gain access so they could be sampled and sediment removed to bring the remaining sediment into compliance with New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) #4046 (Allowable Soil Concentrations).

Drywell sediment samples were submitted for laboratory analysis for the Nassau County list of volatile organic compounds (EPA method 8260), the Nassau County list of semi-volatile organic compounds (EPA method 8270) and the Nassau County list of RCRA metals. These samples were also analyzed for hexa-valent chromium. The various samplings in each drywell are identified below comparing the laboratory data to the NYSDEC TAGMs. When drywell sediment samples exceeded TAGMs, the endpoint sample collected after the cleanout were only analyzed for the compounds that were elevated above the TAGMs.

The laboratory data are summarized by drywell noting only those compounds that were above the laboratory detection limit. The actual laboratory data sheets are in Appendix 2 of this report.

4.1 Drywells

4.1.1 Drywell 1

Drywell 1 has a slotted cover and serves to remove storm water runoff and is connected to Drywell 10 via an underground pipe. Drywell 10 is an overflow pool that was finished below grade and has a solid cover. Drywell 1 is currently in operation.

The laboratory detected no compounds on the Nassau County list of volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	Pre-Cleanout Data	Post-Cleanout 10/30/03	Post-Cleanout 1/7/04	NYSDEC TAGM
Arsenic	2.01	*	NS	7.5
Barium	8.51	3.60	NS	300
Cadmium	*	*	NS	10
Chromium	47.9	4.16	NS	50
Mercury	*	*	NS	0.1
Lead	7.80	2.07	NS	200
Selenium	*	*	NS	2
Silver	*	*	NS	SB
Semi-Volatile Organic Compounds in Parts per Billion (ppb)				
1,3-Dichlorobenzene	NS	*	119	1,600
Phenanthrene	NS	665	*	50,000
Fluoranthene	NS	1,300	*	50,000
Pyrene	NS	1,040	*	50,000
Benzo-a-anthracene	NS	**348**	*	224
Chrysene	NS	**697**	*	400
Benzo-b-fluoroanthene	NS	813	*	1,100
Benzo-k-fluoroanthene	NS	260	*	1,100
Benzo-a-pyrene	NS	**480**	*	61
Indeno(1,2,3-c,d) pyrene	NS	516	*	3,200
Dibenzo-a,h-anthracene	NS	**89**	*	14
Benzo-g,h,i-perylene	NS	535	*	50,000
Depth to Bottom	8 ft		10 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

At the completion of the remediation process, the remaining sediment in this drywell has concentrations below the TAGMs.

4.1.2 Drywell 2

Drywell 2 has a slotted top and is located near the southeastern corner of the building and is not connected to any of the other drywells on-site. Drywell 2 is currently in operation.

The laboratory detected no compounds on the Nassau County list of volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	**Pre-Cleanout Data**	**Post-Cleanout 10/29/03**	**Post-Cleanout 11/26/03**	**Post Cleanout 1/27/04**	**NYSDEC TAGM**
Arsenic	3.41	*	3.07	NS	7.5
Barium	**584**	7.93	7.52	NS	300
Cadmium	5.45	*	*	NS	10
Tri-valent Chromium	**213**	5.39	4.99	NS	50
Mercury	**0.229**	*	*	NS	0.1
Lead	**397**	10.02	9.06	NS	200
Selenium	**3.41**	*	*	NS	2
Silver	*	*	*	NS	SB
Hexa-valent Chromium	NS	NS	*	NS	No Standard
Semi-Volatile Organic Compounds in Parts per Billion (ppb)					
Acenaphthene	NS	129	*	*	50,000
Phenanthrene	NS	935	86	*	50,000
Fluoranthene	NS	1,920	200	*	50,000
Pyrene	NS	1,555	160	*	50,000
Benzo-a-anthracene	NS	**504**	58	*	224
Chrysene	NS	**1,049**	92	*	400
Benzo-b-fluoroanthene	NS	**1,292**	118	*	1,100
Benzo-k-fluoroanthene	NS	467	46	*	1,100
Benzo-a-pyrene	NS	**751**	**71**	*	61
Indeno(1,2,3-c,d)pyrene	NS	630	53	*	3,200
Dibenzo-a,h-anthracene	NS	**120**	**20**	*	14
Benzo-g,h,i-perylene	NS	602	54	*	50,000
Depth to Bottom	15 ft		18 ft	18.5 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The remaining sediment in Drywell 2 meets the TAGMs.

4.1.3 Drywell 3

Drywell 3 has a slotted top and is located on the eastern side of the building and is not connected to any of the other drywells on-site. Drywell 3 is currently in operation.

Metals in ppm	Pre-Cleanout Data	Post – Cleanout 10/30/03	Post-Cleanout 11/26/03	Post-Cleanout 1/7/04	Post-Cleanout 2/16/04	NYSDEC TAGM
Arsenic	*	*	1.86	NS	NS	7.5
Barium	11	5.51	8.53	NS	NS	300
Cadmium	*	*	*	NS	NS	10
Tri-valent Chromium	26.5	6.30	7.66	NS	NS	50
Mercury	*	*	*	NS	NS	0.1
Lead	12.7	2.56	2.69	NS	NS	200
Selenium	*	*	*	NS	NS	2
Silver	*	*	*	NS	NS	SB
Hexa-valent Chromium	NS	NS	*	NS	NS	No Standard
Semi-Volatile Organic Compounds in ppb						
Acenaphthene	NS	*	*	677	*	50,000
Fluorene	NS	*	*	721	*	50,000
Phenanthrene	NS	789	1,847	13,524	*	50,000
Anthracene	NS	124	*	608	*	50,000
Fluoranthene	NS	1,296	4,165	27,283	*	50,000
Pyrene	NS	1,030	3,184	19,952	*	50,000
Benzo-a-anthracene	NS	**354**	**823**	**6,016**	*	224
Chrysene	NS	**666**	**1,782**	**11,597**	*	400
Benzo-b-fluoroanthene	NS	755	**2,079**	**11,605**	*	1,100
Benzo-k-fluoroanthene	NS	259	754	**9,672**	*	1,100
Benzo-a-pyrene	NS	**430**	**1,130**	**8,779**	*	61
Indeno(1,2,3-c,d)pyrene	NS	344	934	**5,967**	*	3,200
Dibenzo-a,h-anthracene	NS	<80	**167**	**1,170**	*	14
Benzo-g,h,i-perylene	NS	352	860	5,266	*	50,000
Depth to Bottom Bottom	15 ft	16 ft	16 ft	18 ft	20 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The laboratory detected no compounds on the Nassau County list of volatile organic compounds during the analysis of the samples.

The January 7, 2004 endpoint sampling identified additional contamination with semi-volatile organic compounds. On January 26, 2004, soil samples were collected inside the drywell at 20 feet, 24 feet and 28 feet below the ground surface to determine to what depth the soil had to be removed to meet the TAGMs for semi-volatile organic compounds. (The actual laboratory data sheets are in Appendix 2). The three samples meet all the TAGMs for semi-volatile organic compounds so a vactor truck was used to remove sediment inside the drywell to a depth of 20 feet below ground surface. The cleanout occurred on February 16, 2004, and the endpoint sample was collected on the same day. Laboratory analysis indicated that the remaining sediment meets the TAGMs.

4.1.4 Drywell 4

Drywell 4 has a slotted top and is located on the eastern side of the property and is connected to Drywell 12 by an underground pipe. Drywell 4 is currently in operation.

The laboratory detected no compounds on the Nassau County list of volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	**Pre-Cleanout Data**	**Post-Cleanout 10/31/03**	**NYSDEC TAGM**
Arsenic	*	2.53	7.5
Barium	22.5	5.37	300
Cadmium	*	*	10
Chromium	10.4	5.93	50
Mercury	*	*	0.1
Lead	5.59	4.41	200
Selenium	*	*	2
Silver	*	*	SB
Semi-Volatile Organic Compounds in Parts per Billion (ppb)			
Phenanthrene	NS	59	50,000
Fluoranthene	NS	143	50,000
Pyrene	NS	119	50,000
Benzo-a-anthracene	NS	42	224
Chrysene	NS	63	400
Benzo-b-fluoroanthene	NS	72	1,100
Benzo-k-fluoroanthene	NS	46	1,100
Benzo-a-pyrene	NS	54	61
Indeno(1,2,3-c,d)pyrene	NS	46	3,200
Depth to Bottom	15 ft	18 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.

* = Not Detected
SB = site background

The sediment remaining in this drywell does not exceed the TAGMs.

4.1.5 Drywell 5

Drywell 5 is located on the southern side of the property and is connected to Drywell 1 via an underground pipe. At the start of the investigation, Drywell 5 was not finished at grade, therefore; no pre-cleanout sample was collected. Drywell 5 appears to have been a part of the original sanitary system.

The laboratory detected no compounds on the Nassau County list of volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	**Post-Cleanout 10/30/03**	**Post-Cleanout 1/27/04**	**NYSDEC TAGM**
Arsenic	4.56	NS	7.5
Barium	6.99	NS	300
Cadmium	*	NS	10
Tri-valent Chromium	3.28	NS	50
Mercury	*	NS	0.1
Lead	*	NS	200
Selenium	*	NS	2
Silver	*	NS	SB
Hexa-valent Chromium		NS	
Semi-Volatile Organic Compounds in Parts per Billion (ppb)			
Phenanthrene	130	*	50,000
Fluoranthene	223	101	50,000
Pyrene	172	80	50,000
Benzo-a-anthracene	54	*	224
Chrysene	112	55	400
Benzo-b-fluoroanthene	121	47	1,100
Benzo-k-fluoroanthene	42	*	1,100
Benzo-a-pyrene	**69**	40	61
Indeno(1,2,3-c,d)pyrene	59	*	3,200
Benzo-g,h,i-perylene	57	41	50,000
Depth to Bottom	9 ft	11 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The sediment remaining in Drywell 5 meets the TAGMs.

4.1.6 Drywell 6

Drywell 6 was located in the alley under the eastern end of the area originally covered by a roof. This drywell was constructed of four concrete blocks that form the top of the drywell while the remainder of the drywell was a metal structure that was approximately the size of a 55-gallon drum. The drum-like structure had a solid bottom. One pipe entered the structure from the west from Drywell 7 and one that lead out of it toward the east toward Drywell 12.

Metals in Parts per Million (ppm)	**Pre-Cleanout 10/31/03**	**Cleanout 11/17/03**	**Post-Cleanout 11/26/03**	**Post-Cleanout 2/24/04**	**Post-Cleanout 4/8/04**	**NYSDEC TAGM**
Arsenic	*	*	5.36	NS	NS	7.5
Barium	*	*	*	NS	NS	300
Cadmium	*	*	*	NS	NS	10
Tri-valent Chromium	**99.2**	34.1	44.8	NS	NS	50
Mercury	*	*	*	NS	NS	0.1
Lead	42.3	8.56	8.29	NS	NS	200
Selenium	*	*	*	NS	NS	2
Silver	*	*	*	NS	NS	SB
Hexa-valent Chromium	NS	*	*	NS	NS	No Standard
Volatile organic compounds in Parts per Billion (ppb)						
Trichloroethylene	18	NS	NS	NS	NS	700
Semi-Volatile Organic Compounds in Parts per Billion (ppb)						
Fluoranthene	149	NS	588	1,204	*	50,000
Pyrene	308	NS	1,774	1,056	*	50,000
Benzo-a-anthracene	132	NS	**674**	**458**	*	224
Chrysene	232	NS	**926**	**678**	*	400
Bis(2-ethylextl)phthalate	753	NS	*	*	*	50,000
Benzo-b-fluoroanthene	550	NS	1,034	708	*	1,100
Benzo-k-fluoroanthene	318	NS	424	616	*	1,100

Benzo-a-pyrene	**524**	NS	**764**	**650**	*	61
Indeno(1,2,3-c,d)pyrene	448	NS	403	613	*	3,200
Dibenzo-a,h-anthracene	**93**	NS	**121**	**150**	*	14
Benzo-g,h,i-perylene	369	NS	405	590	*	50,000
Depth to Bottom	3 feet	6.5 ft	10 ft	13 ft	23 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

During the remediation process, this drywell was disassembled and a backhoe was used to excavate to a depth of approximately 13 feet below grade. Since the remaining soils did not meet the TAGMs and the excavation was threatening to damage the foundation of the building, the excavation was backfilled. A Geoprobe was used to collect samples from 14, 16, 20, 23 and 26 feet below grade. These samples were analyzed for semi-volatile organic compounds. Laboratory analysis determined that all the semi-volatile organic compounds meet the TAGMs at depths of 23 and 26 feet below grade. To excavate to that depth, sheet piling was installed creating an approximately ten feet square rectangle within which the soils could be removed using a vactor truck. Following the removal of soils to a depth of 23 feet below grade, an endpoint was collected and submitted for analysis for semi-volatile organic compounds. Laboratory analysis indicated that the remaining soils meet the TAGMs, so the excavation was backfilled to grade and the sheet piling was removed from the ground.

4.1.7 Drywell 7

Drywell 7 was constructed of four concrete blocks on the surface of the ground. There was one pipe that connected this drywell to Drywell 8 to the west and Drywell 6 to the east.

Metals in ppm	**Pre-Cleanout 10/30/03**	**Post-Cleanout 11/17/03**	**Post-Cleanout 11/26/03**	**Post-Cleanout 12/19/03**	**NYSDEC TAGM**
Arsenic	*	*	*	NS	7.5
Barium	4.07	*	5.19	NS	300
Cadmium	*	*	*	NS	10
Tri-valent Chromium	11.4	4.97	**51.8**	20.2	50
Mercury	*	*	0.037	NS	0.1
Lead	*	*	2.45	NS	200
Selenium	*	*	*	NS	2
Silver	*	*	*	NS	

Hexa-valent Chromium	NS	*	*	NS	No Standard
Semi-Volatile Organic Compounds in ppb					
Indeno(1,2,3-c,d)pyrene	72	NS	*	NS	3,200
Benzo-g,h,i-perylene	109	NS	44	NS	50,000
Depth to Bottom	2 ft	8ft 2 inch	8 ft 2 inch	10.5 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The remaining sediment meets the TAGMs.

4.1.8 Drywell 8

Drywell 8 is located in the alley and is constructed of four concrete blocks at the surface of the ground. There was no structure below those blocks. The drywell is connected to Drywell 7 to the east and Drywell 9 to the west by an underground pipe.

The laboratory detected no compounds on the Nassau County list of volatile organic compounds and the Nassau County list of semi-volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	**Pre-Cleanout 10/30/03**	**Post-Cleanout 11/17/03**	**Post-Cleanout 11/26/03**	**Post-Cleanout 12/17/03**	**NYSDEC TAGM**
Arsenic	*	*	*	NS	7.5
Barium	*	4.25	3.55	NS	300
Cadmium	*	*	*	NS	10
Tri-valent Chromium	**68.9**	**176**	**63**	26.5	50
Mercury	*	0.057	*	NS	0.1
Lead	*	7.5	2.5	NS	200
Selenium	*	*	*	NS	2
Silver	*	*	*	NS	SB
Hexa-valent Chromium	NS	*	*	NS	No Standard
Depth to Bottom	2 ft	8 ft	9 ft	13.5 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.

* = Not Detected
SB = site background

The remaining sediment does not exceed the TAGMs.

4.1.9 Drywell 9

Drywell 9 was constructed with four concrete blocks that were level with the asphalt in the alley. This structure was backfilled so it was finished at the asphalt level. This drywell is connected to Drywell 8 to the west by an underground pipe.

The laboratory did not detect volatile organic compounds or semi-volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	**Post-Cleanout 10/30/03**	**Post-Cleanout 11/26/03**	**Post-Cleanout 12/17/03**	**NYSDEC TAGM**
Arsenic	*	*	NS	7.5
Barium	11.3	4.92	NS	300
Cadmium	*	*	NS	10
Tri-valent Chromium	25.4	7.07	1.78	50
Mercury	*	*	NS	0.1
Lead	5.72	*	NS	200
Selenium	*	*	NS	2
Silver	*	*	NS	SB
Hexa-valent Chromium	NS	*	NS	No Standard
Depth to Bottom	Level with floor	9 ft	12.5 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The remaining sediment in this drywell meets the TAGMs.

4.1.10 Drywell 10

Drywell 10 was an overflow pool that was finished below grade and has a solid cover. No cleanout was required for this drywell. This drywell was raised so it is finished at grade and still has a solid cover.

The laboratory detected no compounds on the Nassau County list of volatile organic compounds and the Nassau County list of semi-volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	Pre-Cleanout Data	NYSDEC TAGM
Arsenic	*	7.5
Barium	6.13	300
Cadmium	*	10
Chromium	4.29	50
Mercury	*	0.1
Lead	1.84	200
Selenium	*	2
Silver	*	SB
Depth to Bottom	10 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

4.1.11 Drywell 11

Following excavation, Drywell 11 did not have any structure associated with it. No sampling was performed.

4.1.12 Drywell 12

Drywell 12 was a catch basin constructed of concrete block and bricks and was originally finished below grade. This catch basin directed the flow of liquids from Drywell 6 to the west to Drywell 15 to the east and Drywell 4 to the southeast.

Metals in ppm	Pre-Cleanout 10/31/03	Post-Cleanout 11/26/03	Post-Cleanout 2/4/04	NYSDEC TAGM
Arsenic	3.32	*	NS	7.5
Barium	22.6	*	NS	300
Cadmium	*	*	NS	10
Tri-valent Chromium	14.8	2.31	NS	50
Mercury	0.021	*	NS	0.1
Lead	5.56	*	NS	200
Selenium	*	*	NS	2
Silver	*	*	NS	SB
Hexa-valent Chromium	NS	*	NS	No Standard
Semi-Volatile Organic Compounds ppb				
Fluoranthene	*	399	*	50,000
Pyrene	*	1,050	*	50,000
Benzo-a-anthracene	*	**421**	*	224
Chrysene	*	**407**	*	400
Benzo-b-fluoranthene	*	609	*	1,100

Benzo-k-fluoranthene	*	228	*	1,100
Benzo-a-pyrene	*	**236**	*	61
Indeno(1,2,3-c,d)pyrene	*	238	*	3,200
Dibenzo-a,h-anthracene	*	**76**	*	14
Benzo-g,h,i-perylene	*	213	*	50,000
Volatile organic compounds in ppb				
Trichloroethylene	32	*	NS	700
Depth to Bottom	3.5 ft	9 ft	20 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

This drywell was excavated and the block structure removed from the ground. On January 26, 2004, the sediment remaining was sampled at 17 feet, 21 feet and 25 feet below the ground surface. The soil samples were analyzed for semi-volatile organic compounds. The table below summarizes the laboratory data and the actual laboratory data sheets are in Appendix 2.

Semi-volatile organic compounds in ppb	**17 feet below grade**	**21 feet below grade**	**25 feet below grade**	**NYSDEC TAGM**
Diethylphthalate	269	*	*	7,100
Chrysene	60	145	*	400
Benzo-b-fluoranthene	100	80	*	1,100
Benzo-k-fluoranthene	54	95	*	1,100
Benzo-a-pyrene	**131**	*	*	61
Indeno(1,2,3-c,d)pyrene	103	*	*	3,200
Benzo-g,h,i-perylene	98	*	*	50,000
Phenanthrene	*	40	*	50,000
Fluoranthene	*	369	*	50,000
Pyrene	*	293	*	50,000
Benzo-a-anthracene	*	177	*	224

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

Based on these data, the soil was excavated to a depth of 20 feet below grade and laboratory endpoint sample data compared to the TAGMs for semi-volatile organic compounds.

The remaining sediment meets the TAGMs.

4.1.13 Drywell 13

Drywell 13 was discovered when a patch in the concrete floor was broken up. This drywell was connected to a roof drain and is constructed of block. The concrete cover on this structure was approximately six inches below grade. The only pipe entering Drywell 13 was a roof drain.

The laboratory detected no compounds on the Nassau County list of volatile organic compounds and the Nassau County list of semi-volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	Pre-Cleanout Data	Post-Cleanout 11/26/03	Post-Cleanout 12/19/03	NYSDEC TAGM
Arsenic	*	*	NS	7.5
Barium	22.8	7.88	NS	300
Cadmium	*	*	NS	10
Tri-valent Chromium	**641**	45.3	27.64	50
Mercury	*	*	NS	0.1
Lead	7.9	*	NS	200
Selenium	*	*	NS	2
Silver	*	*	NS	SB
Hexa-valent Chromium	NS	*	NS	No Standard
Depth to Bottom	4 ft	9 ft	10.5 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The remaining sediment in this drywell does not exceed the TAGMs.

4.1.14 Drywell 14

Drywell 14 had a pipe that connected it to Drywell 16 in the hazardous materials storage room. Drywell 14 was finished below grade and had a concrete cover and was constructed with concrete blocks. This drywell was located west of the exterior entrance to the hazardous materials storage room. The top of the drywell was removed during excavation of the drywell.

The laboratory detected no compounds on the Nassau County list of volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	**Cleanout 10/31/03**	**NYSDEC TAGM**
Arsenic	*	7.5
Barium	17.5	300
Cadmium	*	10
Chromium	8.34	50
Metals in Parts per Million (ppm)		**NYSDEC TAGM**
Mercury	*	0.1
Lead	2.45	200
Selenium	*	2
Silver	*	SB
Semi-Volatile Organic Compounds in Parts per Billion (ppb)		
Bis(2-ethylexyl)phthalate	1,897	50,000
Depth to Bottom	6 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The remaining sediment did not exceed the TAGMs.

4.1.15 Drywell 15

This drywell was not a structure instead was the end of the pipe that extended in an easterly direction from Drywell 12. No structure was present at this location, but the NCDH requested that a soil sample be collected from near the end of the pipe.

Metals in Parts per Million (ppm)	**Pre-Cleanout 11/4/03**	**Post-Cleanout Data 11/26/03**	**NYSDEC TAGM**
Arsenic	3.71	*	7.5
Barium	29.4	*	300
Cadmium	1.04	*	10
Tri-valent Chromium	**62.9**	2.6	50
Mercury	0.069	*	0.1
Lead	24.6	*	200
Selenium	*	*	2
Silver	*	*	SB
Hexa-valent Chromium	NS	*	No Standard
Semi-Volatile Organic			

Compounds in Parts per Billion (ppb)			
Acenaphthylene	116	*	50,000
Phenanthrene	860	*	50,000
Anthracene	164	*	50,000
Fluoranthene	2,394	*	50,000
Pyrene	2,360	*	50,000
Benzo-a-anthracene	**1,381**	*	224
Chrysene	**1,805**	*	400
Semi-Volatile Organic Compounds in Parts per Billion (ppb)	**Pre-Cleanout 11/4/03**	**Post-Cleanout Data 11/26/03**	**NYSDEC TAGM**
Bis(2-ethylexyl)phthalate	863	*	50,000
Benzo-b-fluoroanthene	**2,557**	*	1.100
Benzo-k-fluoranthene	957	*	1,100
Benzo-a-pyrene	**1,630**	*	61
Indeno(1,2,3-c-d)pyrene	1,157	*	3,200
Dibenzo-a,h-anthracene	**295**	*	14
Benzo-g,h,I-perylene	1,184	*	50,000
Volatile organic compounds in Parts per Billion (ppb)			
Trichloroethylene	42	NS	700
Depth to Bottom	Finished at grade	12.5 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The soils at the end of the pipe were excavated and the concentration of chemical compounds in the soils at this location after cleanout did not exceed the TAGMs.

4.1.16 Drywell 16

Drywell 16 was the former floor drain for the hazardous materials storage room and was originally designated sampling location 23B1. The concrete floor in this room was sampled for metals and found to meet the TAGMs and the floor has been broken up and removed.

The initial sampling and analysis of the sediment in Drywell 16 for EPA method 8270 (semi-volatile organic base-neutral compounds) and EPA method 8260 (volatile organic compounds) were all below the method detection limit.

On November 17, 2003, a soil boring was installed in the center of Drywell 16 to determine the depth to which soil had to be excavated to reach soil that meets the

TAGMs for metals. The depth was determined to be 54 inches below grade. The drywell cleanout was performed to eight feet and an endpoint sample collected.

Metals in Parts per Million (ppm)	Initial sampling 9/24/03	Pre-Cleanout 10/31/03	Post-Cleanout 11/17/03	Post-Cleanout 11/26/03	NYSDEC TAGM
Arsenic	**9.51**	*	*	2.1	7.5
Barium	**2,066**	19.6	4.89	10.7	300
Cadmium	**14.3**	7.78	*	*	10

Metals in Parts per Million (ppm)	Initial sampling 9/24/03	Pre-Cleanout 10/31/03	Post-Cleanout 11/17/03	Post-Cleanout 11/26/03	NYSDEC TAGM
Tri-valent Chromium	**686**	10.3	2.86	5.9	50
Mercury	0.08	*	*	*	0.1
Lead	**759**	3.17	*	*	200
Selenium	*	*	*	*	2
Silver	*	*	*	*	SB
Hexa-valent Chromium	NS	NS	*	*	No Standard
Depth to Bottom	1 ft	1.2 ft	4 ft 6 inch	8 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The sediment remaining in the vicinity of the former Drywell 16 does not exceed the TAGMs.

4.2 Sanitary Systems

There were three sanitary systems on the site. All three systems were disconnected from the building when the building was connected to Nassau County sewers.

System 1 was located on the western side of the building near the Sunnyside Boulevard entrance to the building. This system was abandoned by filling the two pools with sand and gravel. No records could be located regarding the original depth of these two pools or if the pools were cleaned prior to abandonment, therefore, a van-mounted Geoprobe was used to sample each pool at four discrete depths of 12-14 feet, 15-16 feet, 16-17 feet and 17-19 feet below grade.

Based on the types of soils present in the three samples, it appears that the original depth of the sanitary pools was 15-16 feet below grade.

Laboratory analysis of the samples from each pool indicated that the fill material and native solids (15-16 feet below grade) did not exceed the TAGMs for the Nassau County list of volatile organic compounds (EPA Method 8260), the Nassau County list of semi-volatile organic compounds (EPA Method 8270) and the Nassau County list of RCRA Metals. The data is summarized in the below table. The actual laboratory analytical data sheets are attached in Appendix 3.

These two pools were originally finished at grade and have been modified so the concrete covers are below grade. This modification will mean that the sanitary pools have been abandoned per NCDH protocols.

Pool #1	**12-14 feet below grade**	**15-16 feet below grade**	**16-17 feet below grade**	**18-19 feet below grade**	**NYSDEC TAGM**
Metals in Parts per Million (ppm)					
Arsenic	*	1.82	2.67	*	7.5
Barium	*	*	*	*	300
Cadmium	*	*	*	*	10
Chromium	2.54	2.59	3.07	2.06	50
Mercury	*	*	*	*	0.1
Lead	*	*	*	*	200
Selenium	*	*	*	*	2
Silver	*	*	*	*	SB
Hexa-valent Chromium	*	*	*	*	No Standard
Volatile organic compounds in Parts per Billion (ppb)					
cis-1,2-dichloroethylene	*	23	*	*	300
Trichloroethylene	*	25	*	*	700
Semi-Volatile Organic Compounds in Parts per Billion (ppb)					
Fluoranthene	*	66	*	*	50,000
Pyrene	*	51	*	*	50,000

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The laboratory detected no compounds on the Nassau County list of volatile organic compounds and the Nassau County list of semi-volatile organic compounds during the analysis of the samples from Pool # 2.

Pool #2	12-14 feet below grade	15-16 feet below grade	18-19 feet below grade	NYSDEC TAGMs
Metals in Parts per Million (ppm)				
Arsenic	3.12	2.30	*	7.5
Barium	*	12.6	*	300
Cadmium	*	*	*	10
Tri-valent Chromium	3.08	9.55	2.56	50
Mercury	*	*	*	0.1
Pool #2	**12-14 feet below grade**	**15-16 feet below grade**	**18-19 feet below grade**	**NYSDEC TAGMs**
Metals in Parts per Million (ppm)				
Lead	*	6.94	*	200
Selenium	*	*	*	2
Silver	*	1.85	*	SB
Hexa-valent Chromium	*	*	*	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

Former Sanitary System 2 is located on the southern side of the building in the driveway. The three structures that make up this system are currently used as drywells to remove surface water runoff. All three (DW1, DW5 and DW10) were cleaned out and the endpoint samples meet the TAGMs (see 4.1 Drywells).

Former Sanitary System 3 was located on the eastern side of the building and was used by the Terminal Drive portion of the building. This system had a two chamber concrete septic tank, and a distribution box that directed the flow of liquids to the three cesspools designated SS1, SS2 and SS3. The liquids and solids in the septic tank were pumped out and disposed of offsite. The tank was then abandoned by filling it with clean sand and gravel. The distribution box was also filled with clean sand and gravel.

The three cesspools were finished below grade and had to be excavated to gain access. Once they were opened, the sediment in the bottom was removed using a vactor truck. Following the pump out of these three cesspools, endpoint samples were collected and submitted for laboratory analysis for EPA Method 8260 (Nassau County list), EPA Method 8270a (Nassau County list) and the Nassau County list of RCRA metals. Sanitary Pools SS-2 and SS-3 required a second cleaning and the endpoint samples meet the TAGMs. The laboratory data from the sampling is summarized in the below table. The actual laboratory analytical data sheets are attached in Appendix 3.

Metals in Parts per Million (ppm)	**SS-1 10/29/03**	**SS-2 11/13/03**	**SS-2 Post-cleanout 11/26/03**	**SS-3 10/31/03**	**SS-3 Post-cleanout 11/4/03**	**NYSDEC TAGMs**
Arsenic	*	9.43	2.05	*	*	7.5
Barium	14.72	104	12.4	7.85	5.90	300
Cadmium	*	3.47	*	*	*	10
Tri-valent Chromium	3.10	22.5	5.02	2.67	2.97	50
Mercury	0.033	**0.45**	0.029	0.050	0.028	0.1
Lead	4.38	29.5	4.78	4.46	2.46	200
Metals in Parts per Million (ppm)	**SS-1 10/29/03**	**SS-2 11/13/03**	**SS-2 Post-cleanout 11/26/03**	**SS-3 10/31/03**	**SS-3 Post-cleanout 11/4/03**	**NYSDEC TAGMs**
Selenium	*	*	*	2.13	*	2
Silver	*	*	*	*	*	SB
Hexa-valent Chromium	NS	*	*	NS	NS	No Standard
Volatile organic compounds in Parts per Billion (ppb)						
Trichloroethylene	*	64	*	*	*	700
Semi-Volatile Organic Compounds in Parts per Billion (ppb)						
1,2,4-Trichlorobenzene	*	335	*	*	*	3,400
Fluoranthene	*	360	*	63	*	50,000
Pyrene	*	374	*	59	*	50,000
Chrysene	*	293	*	*	*	400
Benzo-b-fluoroanthene	*	326	*	80	*	1,100
Benzo-a-pyrene	*	259	*	40	*	61
Benzo-g,h,I-perylene	*	244	*	75	*	50,000
Indeno(1,2,3-c,d)pyrene	*	*	*	97	*	3,200

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The remaining sediment meets the TAGMs.

5.0 Drains

Seven drains were identified on-site. Four of the drains (Drains 1, 2, 3 and 4) are part of the piping system associated with the former welding system. The pipes from these four drains go through the southern building wall and are connected to Drywell 10. The termini of these pipes were determined by dye-testing each of the pipes. There was no sediment in the pipes. Per the Nassau County Department of Health, the pipes were sealed with concrete where they entered the ground.

Drains 5, 6 and 7 were located inside the building and have been excavated and soil samples collected from the bottoms and sidewalls of the excavations. The excavations were continued until the laboratory analytical data met the TAGMs using EPA Methods 8260 (Nassau County list of volatile organic compounds), 8270a (Nassau County list semi-volatile organic compounds) and the Nassau County list of RCRA metals.

The laboratory data are summarized below and the actual laboratory data sheets are in Appendix 4 of this report.

5.1 Drain 5

This drain was located in the alleyway and consisted of a four-inch diameter vertical steel pipe that extended approximately four feet into the soil. One end of this pipe terminated in the soil and other was flush with the floor when the investigation began. The initial soil sample was collected from the bottom of the pipe. The area around the pipe was excavated to a depth of approximately six feet below grade and was approximately seven feet square. Following the excavation of the materials, samples were collected from the sidewalls of the excavation.

Metals in Parts per Million (ppm)	**Pre-Cleanout 10/31/03**	**Post-Cleanout 11/17/03 North**	**Post-Cleanout 11/17/03 East**	**Post-Cleanout 11/17/03 West**	**Post-Cleanout 11/17/03 South**	**NYSDEC TAGM**
Arsenic	2.15	*	*	*	*	7.5
Barium	32.2	14.6	13.6	10.6	15.9	300
Cadmium	1.68	*	*	*	*	10
Tri-valent Chromium	**3,945**	**68.3**	30.5	18.4	24.7	50
Mercury	0.045	*	*	*	*	0.1
Lead	14.6	3.91	2.79	2.29	2.76	200
Selenium	*	*	*	*	*	2
Silver	*	*	*	*	*	SB
Hexa-valent	NS	*	*	*	*	No

Chromium						Standard

Volatile organic compounds in Parts per Billion (ppb)	**Pre-Cleanout 10/31/03**	**Post-Cleanout 11/17/03 North**	**Post-Cleanout 11/17/03 East**	**Post-Cleanout 11/17/03 West**	**Post-Cleanout 11/17/03 South**	**NYSDEC TAGM**
p-Dichlorobenzene (1,4)	304	NS	NS	NS	NS	8,500
Chlorobenzene	43	NS	NS	NS	NS	1,700
Acetone	97	NS	NS	NS	NS	200
Semi-Volatile Organic Compounds in Parts per Billion (ppb)						
1,4-Dichlorobenzene	2,604	NS	NS	NS	NS	8,500
Pyrene	85	NS	NS	NS	NS	50,000
Bis(2-ethylexyl)phthalate	984	NS	NS	NS	NS	50,000
Benzo-a-pyrene	**127**	NS	NS	NS	NS	61
Depth to Bottom	4 ft	6 ft	6 ft	6 ft	6 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The north wall of the excavation could not be extended further because it would have undermined the retaining wall that did not have a foundation footing. Therefore, the excavation was not extended.

5.2 Drain 6

This drain was a concrete patch that was broken up and the soil under the patch sampled because it was grey in color. A soil sample was collected from three feet below grade to determine the depth to which the soil had to be excavated so the remaining soils met the TAGMs. Following the excavation of the soils, samples were collected from the bottom of the excavation and from the four sidewalls.

Metals in Parts per Million (ppm)	Surface Soil in Drain 11/4/03	Sub-surface Soil 11/4/03	Post-Clean out 11/18/03-bottom	Post-Clean out 11/18/03-north wall	Post-Clean out 11/18/03-east wall	Post-Clean out 11/18/03-west wall	Post-Clean out 11/18/03-south wall	NYSDEC TAGM
Arsenic	*	*	*	1.68	*	*	*	7.5
Barium	25.3	29.7	6.01	55.4	38.3	40.5	20.7	300
Cadmium	**29.5**	*	*	*	*	*	*	10
Tri-valent Chromium	**574**	23.4	2.21	7.04	44.7	11.7	5.46	50
Mercury	0.045	*	*	*	0.027	*0	0.03	0.1
Lead	60.8	2.98	*	3.69	2.55	2.62	1.51	200
Selenium	*	*	*	*	*	*	*	2
Silver	**8.02**	*	*	*	*	*	*	SB
Hexa-valent Chromium	NS	NS	*	NS	NS	NS	NS	No Standard
Volatile organic compounds in Parts per Billion (ppb)								
Cis-1,2-dichloroethylene	27	*	NS	NS	NS	NS	NS	300
1,1,1- Trichloroethane	6	*	NS	NS	NS	NS	NS	800
Trichloroethylene	608	26	NS	NS	NS	NS	NS	700
Tetrachloroethylene	26	*	NS	NS	NS	NS	NS	1,400
Semi-Volatile Organic Compounds in Parts per Billion (ppb)								
1,4-Dichlorobenzene	121	*	NS	NS	NS	NS	NS	8,500
Depth to Bottom	3 inches below floor	3 ft	4 ft	4 ft	4 ft	4 ft	4 ft	

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected, SB = site background

5.3 Drain 7

This drain was patched with concrete and was flush with the floor. Once the patch was broken up, it appeared that the area was formerly used as a drain into the subsurface soils.

The initial sampling of Drain 7 was designated SB-5 and was a composite of the soils from approximately 0-18 inches below the floor. The volatile organic compounds were at concentrations that did not exceed the laboratory detection limit for EPA Method 8260 (Nassau County list). Semi-volatile organic compounds (Nassau County list) were at concentrations that meet the TAGMs.

Metals were collected at four depths: 0-2 inches, 4-6 inches, 10-12 inches and 16-18 inches below grade. The concentrations are summarized in the table below

Metals in Parts per Million (ppm)	**Sample SB-5 10/13/03 0-2 inches**	**Sample SB-5 10/13/03 4-6 inches**	**Sample SB-5 10/13/03 10-12 inches**	**Sample SB-5 10/13/03 16-18 inches**	**NYSDEC TAGM**
Arsenic	*	*	4.10	5.04	7.5
Barium	6.85	158	**2,993**	**2,937**	300
Cadmium	*	2.76	**26.2**	**53.3**	10
Tri-valent Chromium	2.46	24.1	**686**	**612**	50
Mercury	*	*	**0.183**	**0.16**	0.1
Lead	1.99	32.2	**566**	**771**	200
Selenium	*	*	*	*	2
Silver	*	*	*	*	SB
Hexa-valent Chromium	*	*	9.92	*	No Standard

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

Soils were excavated from the area of Drain 7 to a depth of approximately 4.5 feet below grade. The width and length of the excavation increased when the endpoint samples for the sidewalls failed to meet the TAGMs for metals (see table below).

The laboratory detected no compounds on the Nassau County list of volatile organic compounds and the Nassau County list of semi-volatile organic compounds during the analysis of the samples.

Metals in Parts per Million (ppm)	Bottom of Excavation 11/4/03 Sampling	North Wall 11/4/03 Sampling	East Wall 11/4/03 Sampling	West Wall 11/4/03 Sampling	South Wall 11/4/03 Sampling	NYSDEC TAGM
Arsenic	*	*	*	*	*	7.5
Barium	24.0	20.3	16.1	86.6	13.6	300
Cadmium	*	*	*	2.06	*	10
Chromium	14.5	8.78	5.04	24.5	9.98	50
Mercury	*	*	*	0.023	*	0.1
Lead	4.04	2.03	*	13.6	*	200
Selenium	*	*	*	*	*	2
Silver	*	*	*	*	*	SB

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

Following the November 4, 2003 sampling, the western portion of the excavation was extended because the concentration of cadmium did not meet the TAGM for that metal. On December 2, 2003 the western wall was re-sampled and the concentration of cadmium was not detected and the other metals meet the TAGMs. At the completion of the excavation of Drain 7, the hole was approximately 15 feet square and 4.5 feet deep.

When each of the drains met the TAGMs, the excavations were backfilled with clean sand and gravel to approximately six inches below the floor. Four of the remaining six inches were backfilled with recycled concrete aggregate in preparation for pouring concrete to level the floor.

6.0 RCRA Closure Plan

A diagram prepared by Equine-Stellar (Figure 3) illustrated the flow of hazardous materials on-site. The materials were brought in the overhead door located in the southeastern corner of the building. Raw materials were brought through the building to the hazardous materials storage room near the northwestern corner of the building, where the raw materials were stored until they were used. The hazardous wastes were originally stored in the fenced area on the eastern end of the building. This procedure was altered and wastes were also stored in the hazardous materials storage room.

The RCRA closure plan focuses on sampling of the hazardous material storage room, the fenced in area and the former plating area.

6.1 Hazardous Materials Storage Room

The hazardous materials storage room was approximately forty-nine feet long, ten feet wide and the ceiling was ten feet high. The room was built using explosion-proof construction. One floor drain was located approximately in the center of the floor and was approximately eighteen inches square and eighteen inches deep and has been designated Drywell 16. The floor of the drywell was earthen and there was one pipe that comes out the side of the drywall to the west towards Drywell 14. This drywell was located outside the building on the western end of the alley. The sump pump in the drywell pumped water through a pipe that drained onto the outside surface of the ground in the vicinity of Drywell 14.

Four randomly placed samples of the concrete floor (CB1 to CB4) in the hazardous materials storage room were collected and submitted for laboratory analysis for the Nassau County list of RCRA Metals. None of the samples had concentrations of metals that exceeded the TAGMs. The laboratory data is summarized below and the actual laboratory data sheets are in Appendix 5.

Metals in Parts per Million (ppm)	**CB#1**	**CB#2**	**CB#3**	**CB#4**	**NYSDEC TAGM**
Arsenic	*	*	*	*	7.5
Barium	11.7	8.44	15.0	17.2	300
Cadmium	*	*	*	*	10
Chromium	9.08	6.74	6.28	6.91	50
Mercury	*	*	*	*	0.1
Lead	*	1.98	*	*	200
Selenium	*	*	*	*	2
Silver	*	*	*	*	SB

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.

* = Not Detected
SB = site background

Following removal of the concrete floor, six soil samples were collected from 0-4 inches below grade. Samples 1, 2 and 3 were collected approximately three feet north of the southern wall of the room. Samples 4, 5 and 6 were collected approximately three feet south of the northern wall. The samples were spaced approximately 12 feet apart east to west. The laboratory data are summarized in the table below and the laboratory data sheets are in Appendix 5.

Metals in Parts per Million (ppm)	#1	#2	#3	#4	#5	#6	**NYSDEC TAGM**
Arsenic	3.56	5.97	2.46	2.14	1.82	3.4	7.5
Barium	11.1	15.3	33.5	12.1	26.3	33.4	300
Cadmium	*	*	*	*	*	*	10
Chromium	6.06	11.3	6.83	8.18	22	8.87	50
Mercury	0.024	0.021	*	0.023	0.021	*	0.1
Lead	5.92	5.67	2.51	4.78	7.01	4.51	200
Selenium	*	*	*	*	*	*	2
Silver	*	*	*	*	*	*+	SB

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

Following removal of the concrete floor, the block walls and concrete ceiling were demolished and removed from the site. Testing of the soil remaining under the concrete floor meet the TAGMs for volatile organic compounds, semi-volatile organic compounds and RCRA metals.

6.2 Plating Area

NCDH files identified a plating operation on-site in the late 1950s. Although the information about the plating operation was not detailed, the operation had chromate and alodine components. According to the NCDH files, the operation had six tanks that contained plating solutions. The location of these tanks in the building was not documented and was suspected of being along the northern wall of the original building adjacent to the hazardous materials storage room. A16 feet by 11 feet concrete patch was observed in that area. When the patch was removed, metal bars were found that re-enforced the floor. Four soil samples were collected from 4-6 inches below the concrete patch and re-enforcement bars. These samples were analyzed for the Nassau County list of RCRA metals. The laboratory analytical data is summarized in the table below and the actual laboratory data sheets are in Appendix 6.

Metals in Parts per Million (ppm)	NE	NW	SE	SW	**NYSDEC TAGM**
Arsenic	2.78	3.02	2.94	3.62	7.5
Barium	13.8	18.5	13.1	21.8	300
Cadmium	*	*	*	*	10
Chromium	5.66	5.64	5.28	5.95	50
Mercury	0.021	*	*	0.02	0.1
Lead	16.3	13	15.4	14.9	200
Selenium	*	*	*	*	2
Silver	*	*	*	*	SB
Hexa valent Chromium	*	*	*	*	No Standard

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

Laboratory analysis of the soil under the concrete floor in the former plating area indicated that the soils meet the TAGMs for volatile organic compounds, semi-volatile organic compounds and RCRA metals.

6.3 Fenced Area

According to the NCDH files, the fenced area was used to store drums of hazardous waste materials.

On October 24, 2003, five surface soil samples were collected from a maximum depth of 18 inches below grade. These samples were submitted for laboratory analyses using the Nassau County list of RCRA metals, the Nassau County list of volatile organic compounds using EPA Method 8260 and the Nassau County list of semi-volatile organic compounds using EPA Method 8270.

None of the samples exceeded the TAGMs for volatile organic compounds. Three of the samples (S2B24-2, S3B24-3 and S4B24-4) exceeded the TAGMs for cadmium, chromium and mercury. All four of the samples (S2B24-2, S3B24-3, S4B24-4 and S5B24-5) exceeded the TAGMs for semi-volatile organic compounds. These laboratory data are summarized in the table below and the actual laboratory data sheets are in Appendix 7.

Metals in Parts per Million (ppm)	**S1B24-1**	**S2B24-2**	**S3B24-3**	**S4B24-4**	**S5B24-5**	**NYSDEC TAGM**
Arsenic	2.56	5.15	2.34	4.33	2.81	7.5
Barium	19.89	72.4	72.6	109	11.8	300
Cadmium	*	**13.5**	**11.1**	**15.8**	*	10
Chromium	10.7	**141**	**57.2**	**185**	12.73	50
Mercury	*	**0.102**	**0.239**	**0.151**	0.021	0.1
Lead	4.24	90.7	128	181	28.66	200
Metals in Parts per Million (ppm)	**S1B24-1**	**S2B24-2**	**S3B24-3**	**S4B24-4**	**S5B24-5**	**NYSDEC TAGM**
Selenium	*	*	*	*	*	2
Silver	*	*	*	5.40	*	SB
Volatile organic compounds in Parts per Billion (ppb)						
Methylene chloride	*	46	*	*	10	100
Trichloroethylene	*	13	*	*	*	700
1,2,4-trimethylbenzene	*	*	*	*	15	3,300
1,3,5-trimethylbenzene	*	*	*	*	9	200
Semi-Volatile Organic Compounds in Parts per Billion (ppb)						
Fluorene	*	555	657	10,005	*	50,000
Phenanthrene	*	11,578	16,734	23,013	632	50,000
Anthracene	*	991	1,254	2,030	*	50,000
Fluoranthene	*	22,488	30,859	46,080	2,226	50,000
Pyrene	*	991	25,597	38,864	1,368	50,000
Benzo-a-anthracene	*	**6,568**	**8,624**	**14,695**	*	224
Chrysene	*	**14,604**	**19,487**	**27,436**	**1,390**	400
Bis(2-ethylexyl)phthalate	*	900	1,918	912	*	50,000
Benzo-b-fluoroanthene	*	**16,209**	**22,253**	**30,798**	**1,162**	1,100
Benzo-k- fluoroanthene	*	**5,609**	**7,472**	**11,563**	361	1,100
Benzo-a-pyrene	*	**9,458**	**12,700**	**18,955**	**542**	61
Indeno(1,2,3-c,d)pyrene	*	**8,064**	**10,748**	**15,009**	444	3,200
Dibenzo-a,h-anthracene	*	**1,779**	**2,448**	**3,683**	*	14
Benzo-g,h,I-perylene	*	7,641	10,388	14,816	411	50,000
Naphthalene	*	*	547	*	*	13,000
Acenaphthene	*	*	599	889	*	50,000

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

Three to four feet of soil was excavated from the fenced area to remediate the contaminated soils. Following excavation of these soils, twelve soil samples were

collected to determine if the remaining soils met the TAGMs for metals and semi-volatile organic compounds. Samples 1 through 5 and 12 were collected at ten-foot intervals from south to north approximately eight feet from the eastern wall of the building. Samples 6 through 11 were collected near the western edge of the excavation that was approximately 30 feet wide from east to west and approximately 100 feet long from north to south.

Metals in ppm	1	2	3	4	5	6	7	8	9	10	11	12	NYSDEC TAGM
Arsenic	*	*	*	1.81	*	*	*	1.67	3.29	*	*	*	7.5
Barium	*	11.4	*	19.5	4.95	9.31	17.9	17.8	26.1	3.99	6.4	4.36	300
Cadmium	*	*	*	*	*	*	**1.94**	**2.28**	*	*	*	*	1.0
Chromium	1.82	9.29	2.11	9.41	4.21	2.65	9.39	18.7	9.71	2.87	3.89	3.5	50
Mercury	*	*	*	*	*	*	*	*	0.028	*	*	*	0.1
Lead	*	*	*	4.35	2.44	2.56	6.62	9.26	5.36	1.84	2.14	*	200
Selenium	*	*	*	*	*	*	*	*	*	*	*	*	2
Silver	*	*	*	*	*	*	*	*	*	*	*	*	SB
Semi-volatile organic compounds in ppb													
Phenanthrene	*	*	*	169	*	159	578	3,422	500	*	296	*	50,000
Anthracene	*	*	*	*	*	*	*	335		*	*	*	50,000
Fluoranthene	*	*	48	301	*	436	1,500	4,870	1,021	*	859	*	50,000
Pyrene	*	*	*	209	*	340	1,257	3,837	798	*	667	*	50,000
Benzo-a-anthracene	*	*	*	*	*	133	397	1,361	302	*	281	*	224
Chrysene	*	*	*	159	*	218	**680**	**2,210**	406	*	364	*	400
Bis(2-ethylexyl)phthalate	*	*	*	*	*	*	*	*	*	*	*	*	50,000
Benzo-b-fluoroanthene	*	*	*	106	*	149	606	**1,850**	477	*	295	*	1,100
Benzo-k- fluoroanthene	*	*	*	82	*	182	390	**1,530**	188	*	272	*	1,100
Benzo-a-pyrene	*	*	*	*	*	147	424	**1,542**	306	*	304	*	61
Indeno(1,2,3-c,d)pyrene	*	*	*	*	*	*	259	997	209	*	272	*	3,200
Dibenzo-a,h-anthracene	*	*	*	*	*	*	81	248	*	*	*	*	14
Benzo-g,h,I-perylene	*	*	*	*	*	86	235	954	199	*	146	*	50,000
Naphthalene	*	*	*	*	*	273	*	*	*	*	*	*	13,000
Acenaphthene	*	*	*	*	*	*	*	*	*	*	*	*	50,000
Volatile organic compounds in ppb													
Acenaphthylene	*	*	*	*	*	*	*	264	*	*	*	*	41,000
Fluorene	*	*	*	*	*	*	*	302	*	*	*	*	50,000

Numbers in **BOLD** exceed the NYSDEC TAGM.

NS = Not analyzed for by laboratory because previous sampling meet TAGM.

* = Not Detected

SB = site background

Samples 7 and 8 exceeded the TAGMs for cadmium and semi-volatile organic compounds, therefore, additional soils were excavated from this area (southeastern corner). This additional excavation extended approximately 20 feet east, 15 feet south and to a depth of 6 feet. On December 19, 2003, endpoint samples were collected in this excavated area and the laboratory data are summarized below. The semi-volatile organic compounds were below the laboratory detection limit for all compounds. The metals are summarized below and laboratory data indicate that none of the metals exceed the TAGMs. The actual laboratory data sheets are in Appendix 8.

Metals in ppm	12/19/03 Sample	NYSDEC TAGM
Arsenic	1.69	7.5
Barium	12.53	300
Cadmium	*	1.0
Chromium	6.67	50
Mercury	0.025	0.1
Lead	3.33	200
Selenium	*	2
Silver	*	SB

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

The remaining sediment in the fenced area meet the TAGMs

7.0 Soil Borings Inside and Outside the Building

In addition to the interior areas investigated above, soil borings were installed in randomly selected locations, as well as, in areas identified as anomalies during the ground penetrating radar investigation (Section 7.2).

7.1 Random Soil Borings

Two soil borings were installed inside the western portion of the building. Soil samples were collected from 0-18 inches below the floor and designated SB-6 and SB-5. The two samples were submitted for laboratory analysis for the Nassau County list of volatile organic compounds using EPA Method 8260, the Nassau County list of semi-volatile compounds using EPA Method 8270 and the Nassau County list of RCRA metals. Neither of the samples exceeded the TAGMs for the chemical compounds identified in the samples.

AEL collected soil samples from six borings installed in the former manufacturing area of the building. Sample 23B2 was collected in the paint spray booth materials storage area. Sample 23B3 was collected in the middle of the former manufacturing area where there were large stains on the concrete. Sample 23B4 was installed adjacent to the rear overhead door. Samples 18B7, 18B8 and 18B9 were collected in the 1960 addition to the building.

The samples were collected after making a composite of the soils from 0-18 inches below the floor. Each sample was submitted to the lab for analysis for the Nassau County list of volatile organic compounds and the Nassau County list of RCRA Metals. The table below summarizes the data and the actual laboratory analytical data sheets are included in Appendix 8.

Metals in Part per Million (ppm)	**23 B2**	**23 B3**	**23 B4**	**18B7**	**18B8**	**18B9**	**NYSDEC TAGM**
Arsenic	1.95	1.91	1.86	2.99	*	*	7.5
Barium	15.4	16.1	12.9	9.52	3.68	*	300
Cadmium	*	*	*	*	*	*	10
Chromium	20.3	10.6	14.4	5.19	3.44	*	50
Mercury	*	*	*	*	*	*	0.1
Lead	4.65	3.26	6.72	3.10	*	*	200
Selenium	*	*	*	*	*	*	2
Silver	*	*	*	*	*	*	SB
Volatile organic compounds in Parts per Billion (ppb)							
Acetone	*	175	*	NS	NS	NS	200
Trichloroethylene	63	32	121	NS	NS	NS	700
Tetrachloroethylene	*	*	6	NS	NS	NS	1,400

Numbers in **BOLD** exceed the NYSDEC TAGM.

NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

Additional soil borings were installed at SB-2 and SB-3 at depths of 0-2 inches, 4-6 inches, 10-12 inches and 16-18 inches below the floor. The samples were submitted for laboratory analysis for the Nassau County list of RCRA metals including both hexa-valent and tri-valent chromium. The results of the laboratory analysis of the samples for the Nassau County list of RCRA metals did not indicate levels above the NYSDEC TAGM's. The actual laboratory data sheets are attached in Appendix 8.

7.2 Ground Penetrating Radar

A ground penetrating radar (GPR) investigation was performed inside and outside the building. The purpose of that investigation was to identify structures that were not finished at ground level or materials buried that were not native soils. If these structures or fill materials are present under the site, they show up on the GPR screen as anomalous areas.

The GPR survey identified six such areas inside the building and three outside the building.

7.2.1 Building Interior

The six areas inside the building were investigated by using a truck-mounted Geoprobe to bore through the floor and collect soil samples at 16-18 feet and 18-20 feet below grade. The sampling locations were designated PF-1 through PF-6. With the exception of PF-3, all five of the sampling locations appeared to be native soils composed of sand and gravel.

At PF-3, the Geoprobe encountered refusal at six inches below the building floor. Two attempts were made to penetrate this area without success. A jackhammer was used to breakup the concrete floor in an area that was approximately five feet square. A backhoe was used to excavate this area to a depth of approximately five feet deep. During the excavation, two layers of asphalt were encountered at six inches and nine inches below grade. A one and one-half inch diameter pipe was encountered that lead to Drywell 8 in the alley. Below that depth was a piece of sheet metal approximately two feet square. Below that, the soils appeared to be native materials that were not discolored and did not have any unusual odors. A soil sample was collected at a depth of 5 feet below grade. Laboratory analysis of the sample did not indicate elevated concentrations of metals.

7.2.2 Building Exterior

Three anomalous areas were identified outside the building. One was located in the driveway located on the southern side of the building. This anomaly was in line and the same size as the sewer cleanout traps and was not excavated to prevent damaging it.

There were two anomalies on the eastern side of the property one in the parking lot and one in the fenced area. Both of these anomalies were excavated using a backhoe.

The anomaly in the parking lot was a concrete structure that appeared to be a concrete pier/footing for a foundation. The bottom of the structure was approximately five feet square and the top three feet were approximately three feet square. It was not associated with any other structure and was located approximately 100 feet from the eastern side of the building.

Two soil samples were collected from the excavation around this structure. The samples from the northern and southern walls of the excavation did not exceed the TAGMs. The southern sample had slightly elevated concentrations of semi-volatile organic compounds.

The anomaly in the fenced area was excavated with a backhoe and found to be several sheets of metal buried near the gate of the fenced area. Two soil samples were collected in this area. The sample closest to the surface of the ground was grey clayey soil and had elevated concentrations of metals while the sample below it was orange sand and gravel, that appeared to be native soils. The metals in the deeper sample did not have elevated concentrations of metals.

Two soil samples were collected in the vicinity of this anomaly. One sample was in the anomaly and the other was below the anomaly. The sample in the anomaly exceeded several semi-volatile organic compounds. Laboratory analysis of the sample collected below the anomaly did not exceed the TAGMs.

The anomaly in the fenced area was excavated during the removal of soil from the fenced area.

Laboratory data sheets for the anomalies are in Appendix 9.

7.3 Alley Area

Following the addition to the building in 1967, the alley area located on the northern side of the building was enclosed by addition of a roof to connect the main building to the retaining wall. The asphalt pavement in the alley was left in place when the roof was added. There are six doors that provide access from the main building to the alley.

This connection formed three separate rooms that were from west to east. The hazardous materials storage room, the western most room, was constructed to be explosion proof with concrete floor, concrete block walls and concrete roof panels. In the middle of the room is a drain (designated Drywell 16) with a pipe under the concrete floor that discharges to Drywell 14 that is outside the western wall of the alley. Drywell 16 had a bottom that was earthen and the remainder of the drywell is constructed of several layers of concrete blocks.

The floor drain had a sump pump in it that pumped water from the drain to the ground outside the western wall of the hazardous materials storage room.

The next room to the east is constructed of concrete blocks, a portion of the floor is concrete (the remainder is asphalt) and has a catch basin that had a solid bottom, a pipe that drained water from the surface of the floor, a pipe that lead to Drywell 9 and had a sump pump whose discharge pipe lead to the roof over the alley. The pipe to Drywell 9 connected to the other drywells in the alley to Drywell 12 located outside the alley.

Drain 5 was constructed of a four-inch diameter steel pipe that drained liquids from the surface and terminated in the soil approximately four feet below grade.

The majority of the alley (approximately 245 feet) had a wooden roof that covers Drywells 6, 7, 8 and 9. This portion of the alley has a floor of asphalt that is in a state of disrepair because of tree roots that have grown under the alley.

In early December 2003, the roof was removed from the alley to provide access to the drywells and drain in the alley. A truck-mounted Geoprobe was used to collect soil samples at five-foot intervals from Drywell 6 to Drywell 9. At each sampling location soil samples were collected at 2 feet and 4 feet below grade. All samples were analyzed for chromium and cadmium, because soils in this area consistently exceeded those TAGMs.

In summary, at the 49 sampling locations, the following samples exceeded the TAGM for cadmium (10 ppm) and/or chromium (50 ppm).

Location	Depth in feet below grade	Cadmium in ppm	Chromium in ppm
15 feet west of DW6	2	1.80	**57.5**
20 feet west of DW6	2	*	**50.8**
20 feet west of DW6	4	**10.2**	14.9
50 feet west of DW6	2	1.01	47.3
105 feet west of DW6	2	*	**76.7**
10 feet west of DW7	2	2.85	**511.0**
NYSDEC TAGM		10	50.0

Numbers in **BOLD** exceed the NYSDEC TAGM.
NS = Not analyzed for by laboratory because previous sampling meet TAGM.
* = Not Detected
SB = site background

To remediate the alley, the top two feet was excavated. In the areas where the TAGMs for cadmium and/or chromium were exceeded, soil was excavated to a depth of approximately three feet except at 20 feet west of DW6, where the soil was excavated to a depth of approximately six feet below grade. In these areas where contamination was identified, endpoint samples were collected and analyzed for Nassau County metals.

The actual laboratory data sheets are contained in Appendix 10.

7.4 Trivalent and Hexavalent Chromium

Chromium, a naturally occurring metal, can exist in several oxidation states, the most stable and common are chromium III (trivalent chromium) and chromium VI (hexavalent chromium). Hexavalent chromium is the more toxic and can be more readily extracted from soil and sediment. In the presence of soil organic matter, hexavalent chromium is reduced to trivalent chromium. This chemical reduction occurs at a faster rate in acidic environments.

Sources of hexavalent chromium include electroplating operations and stainless steel welding. These are two operations that took place at the Equine Stellar site.

Trivalent chromium is less mobile in soil because it adsorbs to soil particles.

The following table illustrates that the majority of the chromium that in the soils on-site are trivalent chromium.

Sample Depth	**Sample Depth Below Grade**	**Trivalent Chromium concentration in parts per million**	**Hexavalent Chromium concentration in parts per million**
SB4	0-2 inches	7.05	<2.44
	4-6 inches	7.87	<1.00
	10-12 inches	5.96	<1.00
	16-18 inches	5.04	<1.00
DW6	4-7 feet	2,364	2.75
DW7	2-4 feet	180	6.72
DW8	2-6 feet	1,678	14.4
DW9	0-4 feet	266	<1.00
Pool 1	12-14 feet	2.54	<1.00
	16-17 feet	3.07	<1.00
	18-19 feet	2.06	<1.00
Pool 2	12-14 feet	3.08	<1.00
	18-19 feet	2.56	<1.00
SB6	10-12 inches	9.05	<1.00
	16-18 inches	9.88	<1.00
SB2	0-2 inches	8.70	<1.00
	4-6 inches	5.44	<1.00
	10-12 inches	6.00	<1.00
	16-18 inches	4.60	<1.00

The data in the table above indicate that hexavalent chromium was present where trivalent chromium was in significantly elevated concentrations. The data also indicate

that in most cases, chromium in the soils on-site is the trivalent isotope that is more stable than hexavalent and less soluble.

8.0 Groundwater Sampling

According to the Nassau County Department of Health, the shallowest aquifer, the Upper Glacial Aquifer, is approximately 140 feet below ground surface. During a groundwater investigation in the Plainview Industrial Park in February 2003, the NYSDEC identified shallower pockets of perched water that were formed by layers of clayey soils.

On November 26th, 2003, a hydropunch was installed between Drywell 2 and Sanitary Pools 1 and 2 on the southern side of the building. Perched water was encountered at approximately 80 feet below grade, and at that depth a perched water sample was collected and submitted for laboratory analysis using EPA Method 8270, EPA Method 8260 and Nassau County metals.

The sample contained sediment and was analyzed before and after being filtered by the laboratory. The before filtering sample had a chromium concentration of 0.16 milligrams per Liter and post-filtering sample had <0.05 milligrams per Liter. The drinking water standard is 0.1 milligrams per Liter.

The only volatile organic compound detected above the laboratory detection limit was trichloroethylene (7 micrograms per Liter). The drinking water standard for that compound is 5 micrograms per Liter. The actual laboratory data sheets are in Appendix 11.

In the NYSDEC February 3, 2003 report, Equine-Stellar was not identified as potential source of trichloroethylene contamination of the groundwater.

9.0 Mold Investigation

AEL collected one bulk sample of mold from the sheetrock wall inside the manufacturing area that had visible mold growth. The sample was sent overnight to Aerotech Laboratories, Inc, in Phoenix, Arizona where it was analyzed for bacteria and viable and non-viable mold. The results of the laboratory analysis are summarized in the below table and the actual laboratory analytical data sheets are attached in Appendix 12.

Compound	Bulk Sample CFU	Standard CFU
Non Viable Fungi		
Aspergillus/ Penicillium	4,600,000	
Chaetomium	36,800	
Pithomyces/Ulocladium	961,400	
Stachybotrys	22,724,000	
Total	28,322,200	1,000

Mold contamination was identified on the walls and ceiling of the building.

The mold contaminated building materials have been removed during building renovations in February 2004.

10.0 Asbestos Containing Building Materials

On Tuesday, October 7, 2003 an asbestos inspector from Anson Environmental Ltd. (AEL) conducted an asbestos survey in the office spaces of 131 Sunnyside Boulevard, Plainview, New York. Eighteen (18) samples of floor tiles and mastic were collected from the office spaces. The samples were taken from random locations throughout the building. The samples were submitted to EMSL Analytical Inc., a state certified laboratory, to perform the New York State TEM NOB analysis. According to EPA and NYS Dept. of Labor, any material containing 1% or more asbestos by weight is considered an asbestos containing material (ACM).

The results of the analysis determined that the beige 12" x 12" floor tiles and its associated mastic underlying the carpet and the gray 12" x 12" floor tiles do contain asbestos.

The laboratory data sheets are in Appendix 13.

The asbestos containing building materials were removed and post abatement air sampling determined that the air meet OSHA standards.

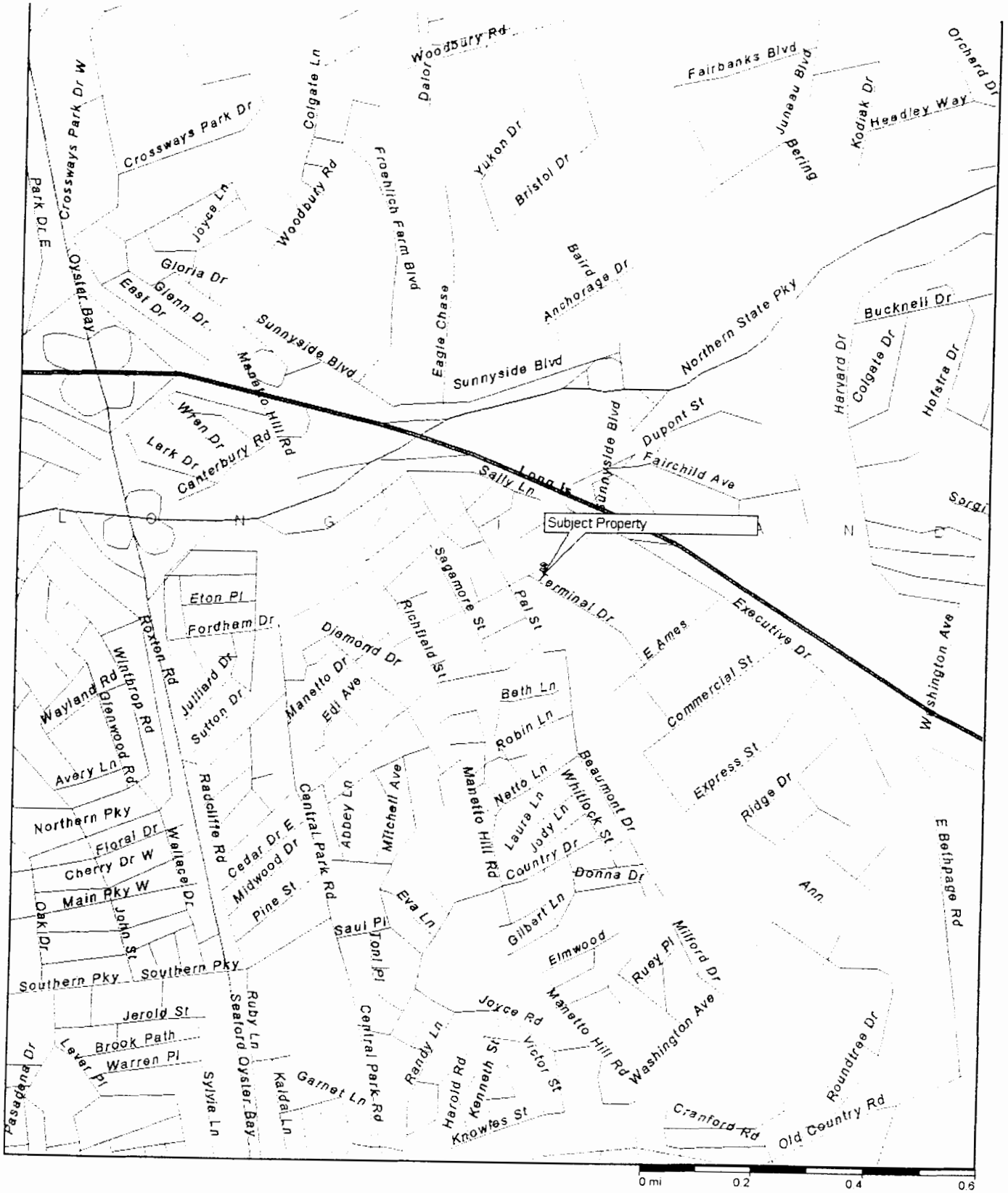
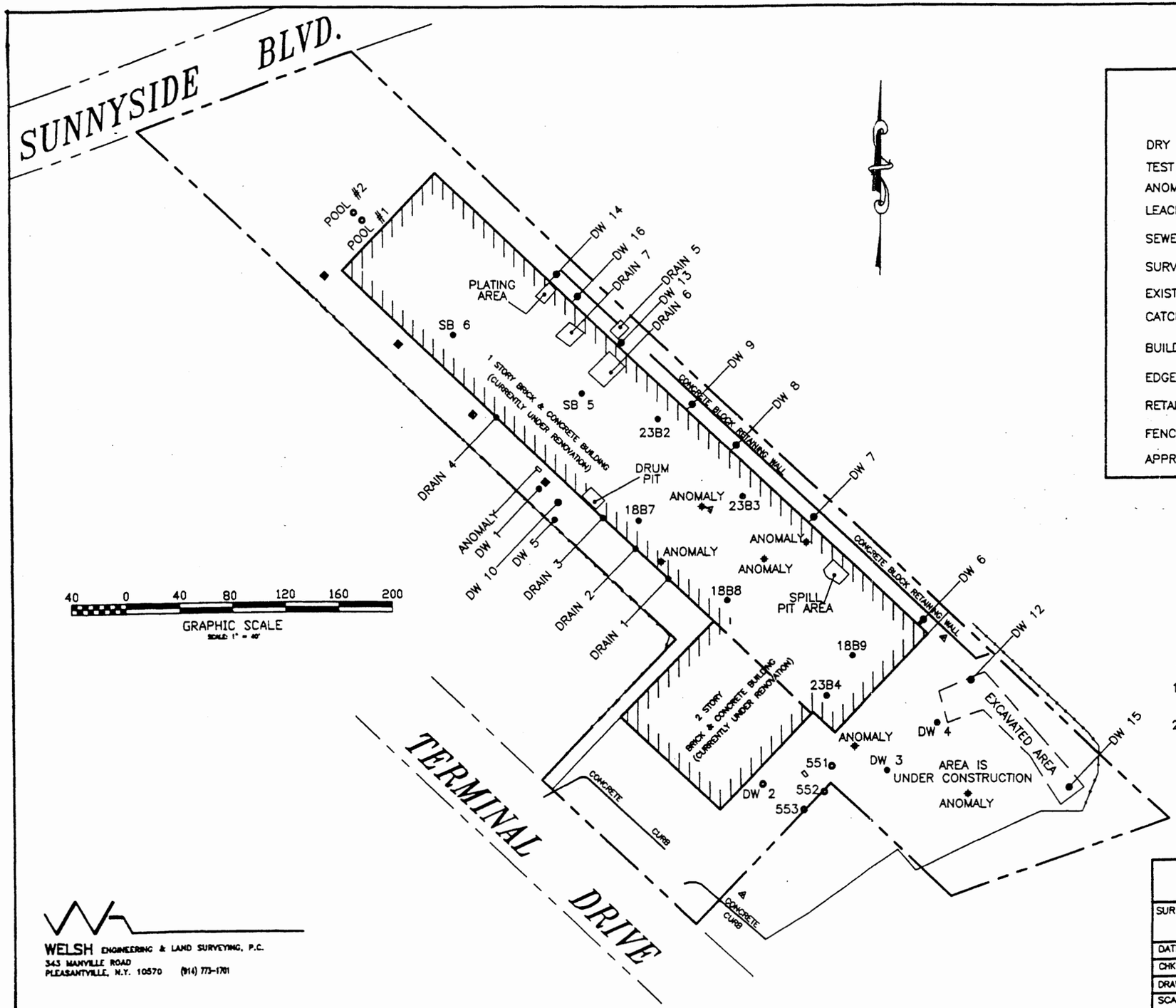


Figure 1 Site Location
131 Sunnyside Boulevard
Plainview, NY



LEGEND

DRY WELL	DW
TEST BORING	⊕
ANOMALY	✱
LEACHING POOL	○
SEWER MANHOLE	■
SURVEY CONTROL STATION	△
EXISTING CATCH BASIN	●
CATCH BASIN (REFILLED)	●
BUILDING LINE	
EDGE OF PAVEMENT	
RETAINING WALL/CURB	
FENCE LINE	
APPROX. PROPERTY LINE	

NOTES

1. FIELD SURVEY WAS CONDUCTED FEB., 2004 BY WELSH ENGINEERING & LAND SURVEYING, P.C.
2. UNDERGROUND UTILITIES ARE NOT SHOWN.

WELSH ENGINEERING & LAND SURVEYING, P.C.
345 MANVILLE ROAD
PLEASANTVILLE, N.Y. 10570 (914) 773-1701

Figure 2 Site Diagram

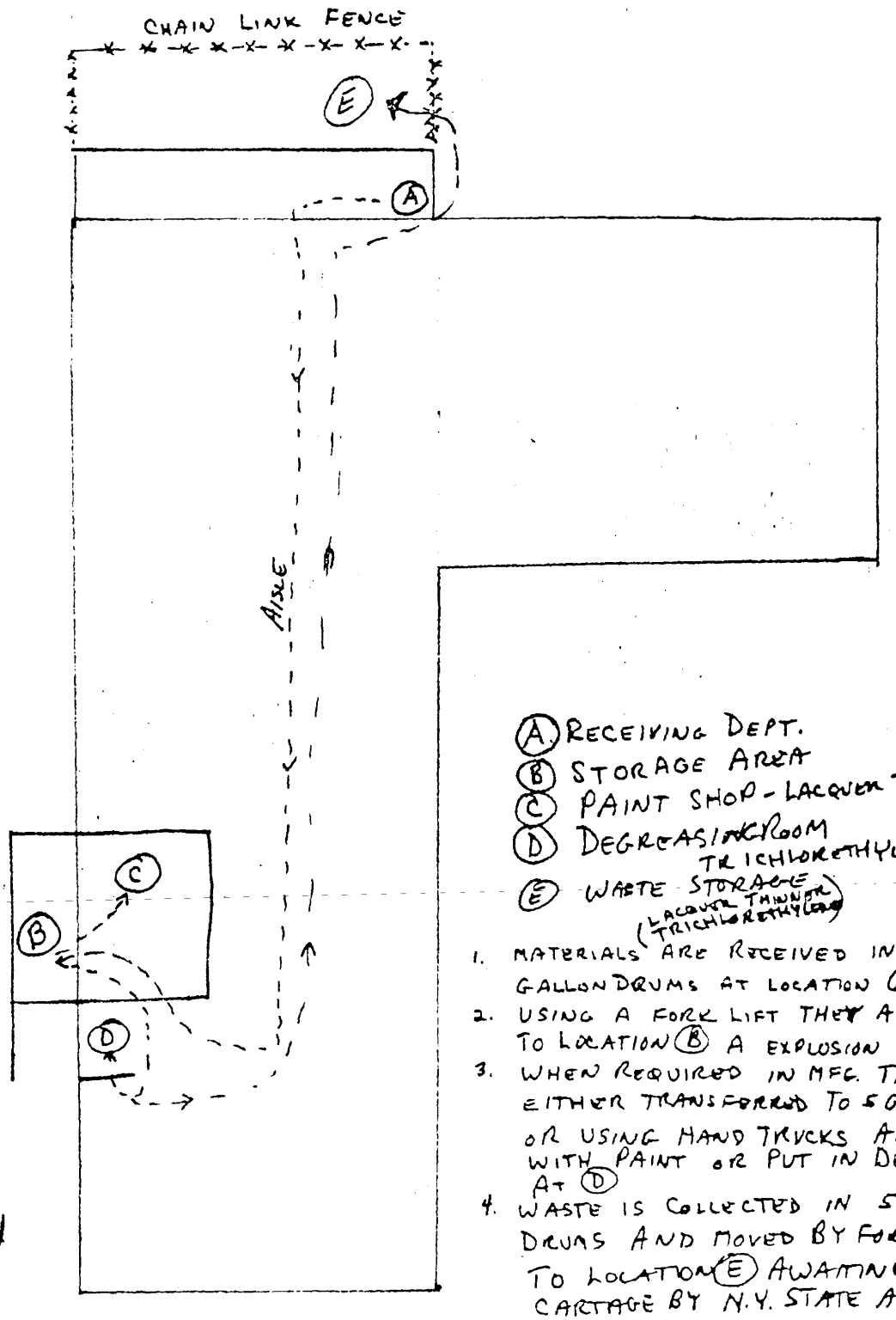
SURVEY PREPARED FOR: *ANSON ENVIRONMENTAL LTD.*

131 SUNNYSIDE AVENUE
PLAINVIEW, TOWN OF OYSTER BAY,
NASSAU COUNTY, NEW YORK

DATE: 3/8/04	PROJECT NO. 0508.00
CHK BY: B.W.	DISC NO.
DRAWN BY: J.H.	JOB NO. 0508.00
SCALE: 1" = 40'	CAD FILE: 050800W.DWG

QUINE-STELLAR CORP.
131 SUNNYSIDE BLVD. - PLAINVIEW, NEW YORK 11803

MATERIALS FLOW SKETCH



A. Richert
Controller
-14-83

(A) RECEIVING DEPT.
(B) STORAGE AREA
(C) PAINT SHOP - LACQUER THINNER
(D) DEGREASING ROOM TRICHLOROETHYLENE
(E) WASTE STORAGE (LACQUER THINNER TRICHLOROETHYLENE)

1. MATERIALS ARE RECEIVED IN 55 GALLON DRUMS AT LOCATION (A).
2. USING A FORK LIFT THEY ARE TAKE TO LOCATION (B) A EXPLOSION PROOF Ro
3. WHEN REQUIRED IN MFG. THEY ARE EITHER TRANSFERRED TO 5 GAL PAILS OR USING HAND TRUCKS AND MIXED WITH PAINT OR PUT IN DEGREASE AT (D)
4. WASTE IS COLLECTED IN 55 gal DRUMS AND MOVED BY FORK LIFT TO LOCATION (E) AWAITING CARTAGE BY N.Y. STATE APPROVED INDUSTRIAL WASTE COLLECTOR.

Figure 3
Flow of Hazardous Materials
131 Sunnyside Boulevard
Plainview, NY