

## Long-Term Stewardship Inspection Report

### Atlantic Coast Environmental (ACE) – Dover, Delaware – DED000796300

Prepared by: Joel Hennessy (3LC10) and Stacie Pratt (3LC50)

Date: December 17, 2014

#### ***Background:***

- Closed hazardous waste management facility;
- DNREC issued Post-Closure (PC) Permit for a closed waste pile in 1996. Permit requires ACE to conduct 30 years of PC care with:
  - Site maintenance,
  - Measures to control erosion to the waste pile cap,
  - Inspection and security program,
  - Groundwater monitoring using alternate concentration limits,
  - Financial assurance
- Main contaminants in groundwater are PCE, TCE, 1,1,2 trichloroethane, 1,1,2,2-tetrachloroethane, and chloroform;
- Current groundwater monitoring is performed every 5 years (On-line fact sheet appears to be outdated – Indicates sampling is done annually);
- No Institutional Controls (ICs) recorded in RCRAInfo

#### ***Permit:***

- What does the Post Closure Permit require?

EPA reviewed the post-closure permit at DNREC's office on August 8, 2014. Effective date of permit – 2/1/2007 – Permit # HW17A02. Requirements of post-closure care include inspections of the cover system, groundwater monitoring, and maintenance of the cover, monitoring wells, and security system. Permit also requires financial assurance.

#### ***Engineering Controls:***

- What engineering controls exist?

Engineering controls for the facility include the waste pile cap and the fence.

- What are the maintenance requirements for the engineering controls?
  - Repairing the fence, gates, or other security features if damaged;
  - Maintain integrity and effectiveness of the final cover, which includes repairs of the cap to correct effects of vegetation, root penetrating erosions, etc;
  - Prevent run-on and run-off from eroding or damaging final cover;
  - Addition of soil to eroded cap areas;
  - Cleaning of accidental debris and sediments that may block flow of run-off toward the rip-rap drainage swales;
  - Reseeding of bare cap areas exposed due to erosion or other areas.
- What are the property boundaries relative to the fence line and the waste cap?

The property is a leased parcel from an owner of multiple adjacent properties. The leased parcel does not correspond to specific property tax parcels, but is defined in a lease document called Reserved Lease (Attachment A). The reserved lease contains a survey drawing showing the leased parcel boundary. The fence line is contained within the leased parcel boundary and is surveyed. However, the leased parcel boundary is not coincident with the fence on the northeast and northwest sides, and extends beyond the fence. The waste cap is also surveyed (Attachment B). Using all of the information available in the various survey drawings, EPA created a scaled GIS map showing the leased parcel boundary, the waste cap, and the fence line on an aerial photo base map (Attachment C).

***Groundwater Monitoring Wells:***

- Which wells are required to be sampled as part of post-closure monitoring?

MW-1, MW-2, MW-5, MW-5D, and MW-6 are part of ACE's groundwater monitoring plan. MW-1 and MW-2 were last sampled in 2013, and MW-5, MD-5D, and MW-6 were last sampled in 2008.

- Which wells are available for monitoring?

Wells within the fence line (MW-1, MW-1D, MW-2, MW-2D, MW-3, MW-4, and MW-7) still exist for monitoring. All wells outside the fence line (MW-5, MW-5D, MW-6, MW-8, MW-9, MW-10) are no longer available for monitoring. Based on conversations with DNREC and the permittee, it was explained that a driller had been directed by the owner of the property (not the permittee) to plug and abandon some nearby wells. The wells that were to be plugged and abandoned were not supposed to be any of those associated with the ACE property. Unfortunately, the wells associated with the ACE facility outside the fence line were mistakenly plugged and abandoned. The condition of these wells was discovered during preparations for the groundwater sampling event in 2013. As a result of the damage, wells MW-5, MW-5D and MW-6 were not sampled in 2013, the year in which they were due for sampling. There have been continuing conversations between DNREC, the permittee, owner, and driller on installing new wells to replace these damaged wells.

***Groundwater and Soil Contamination:***

- Was remaining soil under the cap contaminated enough to cause groundwater problems?

The primary constituents found in soil samples were methylene chloride and PCBs. Neither of these constituents attributable to the former waste pile were observed in site groundwater samples. This indicated that the location of the former waste pile was not posing significant impacts to site groundwater. However, because of the presence of some residual soil contamination, DNREC required capping of the pile.

- What is the current level of groundwater contamination?

Sampling in 2008 of wells MW-1, MW-2, MW-5, MW-5D, and MW-6 indicated all wells were below the groundwater protection standards established in the post closure permit. Most results were non-detect. The detections for Chloroform in MW-5 and MW-6 were below the MCL. The

detection of tetrachloroethene in MW-2 was below the federal MCL, and equal to the current state MCL.

Sampling results in 2013 for wells MW-1 and MW-2 were non-detect.

***Financial Assurance:***

- Confirm status of financial assurance.

During the meeting with DNREC, DNREC confirmed that the permittee has financial assurance (FA) through a trust in the amount of approximately \$12k. During the 1980s, it was determined that the permittee did not have enough funds to cover financial assurance for the property. However, the permittee did have enough funds to pay for groundwater sampling and maintenance of the property. Due to the low concentrations levels founds in the soils and groundwater, DNREC negotiated with the permittee to put enough funds into a trust to pay for groundwater sampling events and property maintenance (including an inflation rate of 2%).

***Future Use/Land Restrictions:***

- Are there any land use restrictions that currently apply to the facility?

There are no current or future land use restrictions within the permit, other than a requirement that no use shall be allowed which would disturb the integrity of the final cover, containment system components, or the function of the monitoring systems. However, the permit does state that if the permittee or owner of the land wishes to remove the cap or contaminated soils, they must request a modification and must demonstrate that the removal of hazardous waste will satisfy the criteria of 264.111, 264.117(c), and 264.119(c). DNREC stated that they will evaluate the site for the potential implementation of covenants or ICs at the end of the permit in 2019.

- Is local government aware of restrictions on this property?

Unsure – Not discussed during the inspection.

- Any plans for redevelopment?

According to DNREC, the property and additional contiguous land that extends beyond the fence line area was reportedly initially purchased for student housing. However, the zoning has changed to commercial, and potential use as storage facilities had been reported. At this time, DNREC is unaware of any plans for redevelopment.

***Site Inspection:***

On August 28, 2014, the permittee, Mr. James Stoner, accompanied Stacie Pratt (EPA), Joel Hennessy (EPA), and Larry Matson (DNREC) on a site inspection.

- Observations and current conditions of the fence line:

While walking along the fence line, there were some areas observed in which the fence was damaged (see Attachment D). In one instance, the fence was slightly buckling, and in another, a tree was on top of the fence.

- Observations and current conditions of the waste pile cap:

On top of the cap, there was significant vegetation with a few small trees growing, but no larger trees were observed.

- Observations and current conditions of each groundwater monitoring well location:

All of the monitoring well locations were observed. All wells outside the fence line were damaged (plugged). For some of the wells, the surface casing had been pulled out of the ground (lying nearby) and all the wells were plugged with what appeared to be bentonite. These damaged monitoring wells included: MW-5, MW-5D, MW-6, MW-8, MW-9, MW-10 (see Attachment D). Wells MW-1, MW-1D, MW-2, MW-2D, MW-3, MW-4, and MW-7 located within the fence line all appeared in reasonably good condition and were locked.

***EPA Recommendations:***

- Define the Reserved Lease Boundary as the entire facility for the purpose of defining the geographic limit of the facility in RCRAInfo and for mapping. Add the geographic coordinates of the Reserved Lease Boundary to the RCRAInfo GIS module as representing the entire facility.
- Record the fence line as an area name in RCRAInfo, add an engineering control event code linked to the Fence Line area name, and record geographic coordinates in the RCRAInfo GIS module for the fence line.
- Record the waste pile cap as an area name in RCRAInfo, add an engineering control event code linked to the waste pile cap area, and record geographic coordinates in RCRAInfo GIS module for the waste pile cap area.
- Update the fact sheet on the EPA web page for this facility to reflect current monitoring frequency.
- Require maintenance of the fence line: remove trees that have fallen onto the fence; repair fence as needed.
- Clear vegetation (trees) growing on the waste cap area to remove the potential for root penetration and damage to the waste cap that could occur if trees are allowed to remain.

***Attachments:***

- Attachment A – Reserved Lease
- Attachment B – ACE Survey
- Attachment C – GIS Map of Facility
- Attachment D – Inspection Photos

Attachment A  
Reserved Lease

Tax Parcel Nos

Prepared by:  
Young, Malmberg & Howard, P.A.  
502 S. State Street  
Dover, DE 19901

### RESERVED LEASE

THIS AGREEMENT MADE this 3<sup>RD</sup> day of September, 2004, by and between JEMM Investors, a Maryland General Partnership, c/o James Stoner, Hanby's Inc., and Atlantic Coast Environmental, Inc, 917 South Heald Street, Wilmington, DE 19801 (hereinafter "Lessee or Seller") and Kent Storage Facilities, L.L.C., Lorelex Company, L.L.C. and College Road Management, Inc. (hereinafter collectively "Lessors"), is as follows:

WHEREAS MGS, L.L.C. entered into a contract with Lessee dated September 29, 2003 (the "Contract") and,

WHEREAS thereafter MGS, L.L.C. assigned its interest in the Contract to Lessors and,

WHEREAS the Contract provides in part for retention of certain lease rights by Seller as more particularly set forth therein.

NOW THEREFORE, for One Dollar (\$1.00) and other good and valuable consideration, receipt whereof is hereby acknowledged, the parties agree as follows:

1. Attached hereto as Exhibit A is a partial survey of the property depicting by cross lines a parcel located at the northwest corner of the entire tract and by solid coloring Railroad Avenue located along the west side of the entire tract. The aforesaid northeast parcel is a former hazardous waste storage site and continues to be under the jurisdiction of the Department of Natural Resources and Environmental Control for the State of Delaware, Division of Air and Waste Management, under a post-closure permit number HW06A09, establishing a compliance period that runs through the year 2019, a copy of the Department's letter regarding same dated July 1, 2002 being attached hereto as Exhibit B - the northwest corner property being subject to this DNREC control and supervision, requirements for tests, and whatever potential liability may arise there from.

2. Pursuant to complying with the monitoring requirements of the aforesaid Department of Natural Resources and Environmental Control, Lessor leases to Lessee the northwest corner property aforesaid for the sum of One (\$1.00) Dollar per year until such time as said property is fully released by the Department of Natural Resources and Environmental Control requiring no further access to the property by Seller, and for and during the term of said lease an easement is reserved unto Seller across Railroad Avenue to access said property to comply with all requirements of the Delaware Department of Natural Resources and any other governmental body having jurisdiction there over, to the end that seller may comply with all governmental rules, regulations and orders required of seller in regard to said property.

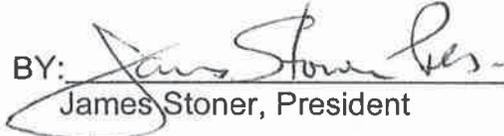
IN WITNESS WHEREOF, the parties have caused these presents to be signed and sealed, on the day and date set forth above.

WITNESS:

  
\_\_\_\_\_  
as to all

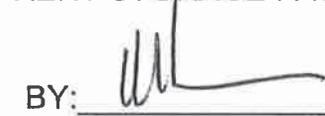
SELLER  
JEMM INVESTORS

By: Atlantic Coast Environmental, Inc.

BY:   
\_\_\_\_\_  
James Stoner, President

BUYER  
KENT STORAGE FACILITIES, L.L.C.

\_\_\_\_\_

BY:   
\_\_\_\_\_  
Mark G. Schaeffer  
Authorized Member

LORALEX COMPANY, L.L.C.

\_\_\_\_\_

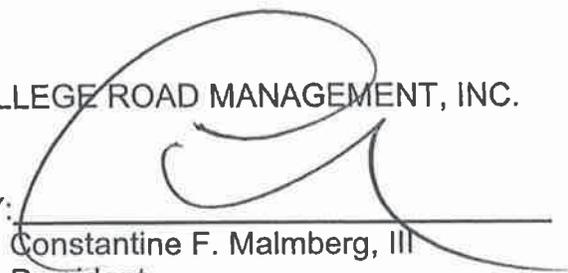
BY:   
\_\_\_\_\_  
Constantine F. Malmberg, III  
Authorized Member

WITNESS

\_\_\_\_\_

COLLEGE ROAD MANAGEMENT, INC.

BY:

  
\_\_\_\_\_  
Constantine F. Malmberg, III  
President

STATE OF DELAWARE :  
: SS.  
COUNTY OF KENT :

BE IT REMEMBERED, that on this 3<sup>rd</sup> day of Sept, 2004, personally came before me, the Subscriber, a Notary Public for the State and County aforesaid, James Stoner, President of Atlantic Coast Environmental, Inc. party to this indenture, known to me personally to be such, and acknowledged this Indenture of writing to be his act and deed and the act and deed of said corporation.

GIVEN under my Hand and Seal of Office, the day and year aforesaid.

  
Notary Public

MARSHA R. WILSON  
NOTARY PUBLIC  
STATE OF DELAWARE  
COMMISSION EXPIRES 02-08-05

STATE OF DELAWARE :  
: SS.  
COUNTY OF KENT :

BE IT REMEMBERED, that on this 3<sup>rd</sup> day of Sept, 2004, personally came before me, the Subscriber, a Notary Public for the State and County aforesaid, Mark G. Schaeffer, Authorized Member of Kent Storage Facilities, L.L.C., party to this indenture, known to me personally to be such, and acknowledged this Indenture of Writing to be hi act and deed and the act and deed of said company.

GIVEN under my Hand and Seal of Office, the day and year aforesaid.

  
Notary Public

MARSHA R. WILSON  
NOTARY PUBLIC  
STATE OF DELAWARE  
COMMISSION EXPIRES 02-08-05





STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
& ENVIRONMENTAL CONTROL  
DIVISION OF AIR & WASTE MANAGEMENT  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901



SOLID & HAZARDOUS WASTE  
MANAGEMENT BRANCH  
TELEPHONE: (302) 739-3  
FAX No.: (302) 739-5

July 1, 2002

Mr. James Stoner  
Atlantic Coast Environmental, Inc. (ACE)  
917 S. Heald Street  
Wilmington, Delaware 19801

Subject: Solid & Hazardous Waste Management Branch (SHWMB) determination on ground water  
sampling requirements during the remaining post-closure care period.  
Re: DED000796300; File Codes: 10 and 62

Dear Mr. Stoner:

As you know, ACE's Post-Closure Permit # HW06A09 (Permit) stipulated that ground water monitoring was required at ACE during the established nine (9) year compliance period (covering the time interval from 1990-98). The Permit also stipulated that, at the end of the compliance period, the SHWMB would evaluate the need for additional ground water monitoring for the remainder of the thirty (30) year post-closure care period. The SHWMB has completed this evaluation and determined that continued ground water monitoring is required under post-closure.

The SHWMB acknowledges that ground water quality beneath the ACE site has improved, to the extent that the ground water protection standard set forth in the Permit has not been exceeded during the most recent five years of sampling (1994-98). Accordingly, while requiring continued sampling, the SHWMB concluded that such sampling events could be reduced in number and frequency, yet concurrently remain protective of human health and the environment. The SHWMB determined that four (4) sampling events, spaced at approximate five year intervals, be performed over the remainder of the post-closure care period. Specifically, sampling would be performed in the spring (March-May) of the years 2003, 2008, 2013; and 2019 (the final year of the post-closure care period).

Implementation of the new sampling schedule will require ACE to submit a formal Class 1 permit modification request. The SHWMB will assist in this process and proposes to meet with you shortly to discuss details associated with the permit modification request in general and future ground water monitoring requirements in particular. The SHWMB will contact you shortly to schedule this meeting. If you have any questions, please contact Eric Trinkle of the SHWMB at (302) 739-3689.

Sincerely,

*Nancy C. Marker*

Nancy C. Marker  
Program Manager II  
Solid and Hazardous Waste Management Branch

*A change  
for*

EJT0214  
NCM:EJT:trh

EXHIBIT "B"

*Delaware's good nature depends on you!*

Attachment B  
ACE Survey

*Copy*

Earl D. Smith, Inc.

Professional Land Surveyor

**WORKING COPY**

490 N. Du Pont Hwy. • P.O. Box 129 • Dover, De 19903 • 302-734-3381

February 8, 1990

**WORKING COPY**

**RECEIVED**  
FEB 9 1990

STATE OF DELAWARE  
WASTE MANAGEMENT SECTION

Edwin H. Clark, III, Secretary  
Department of Natural Resources &  
Environmental Control  
State of Delaware  
Division of Air & Waste Management  
89 Kings Highway  
Dover, DE 19901

The attached plot  
should be in the file.

*File 29*

RE: ATLANTIC COAST ENVIRONMENTAL, INC.

Dear Mr. Clark:

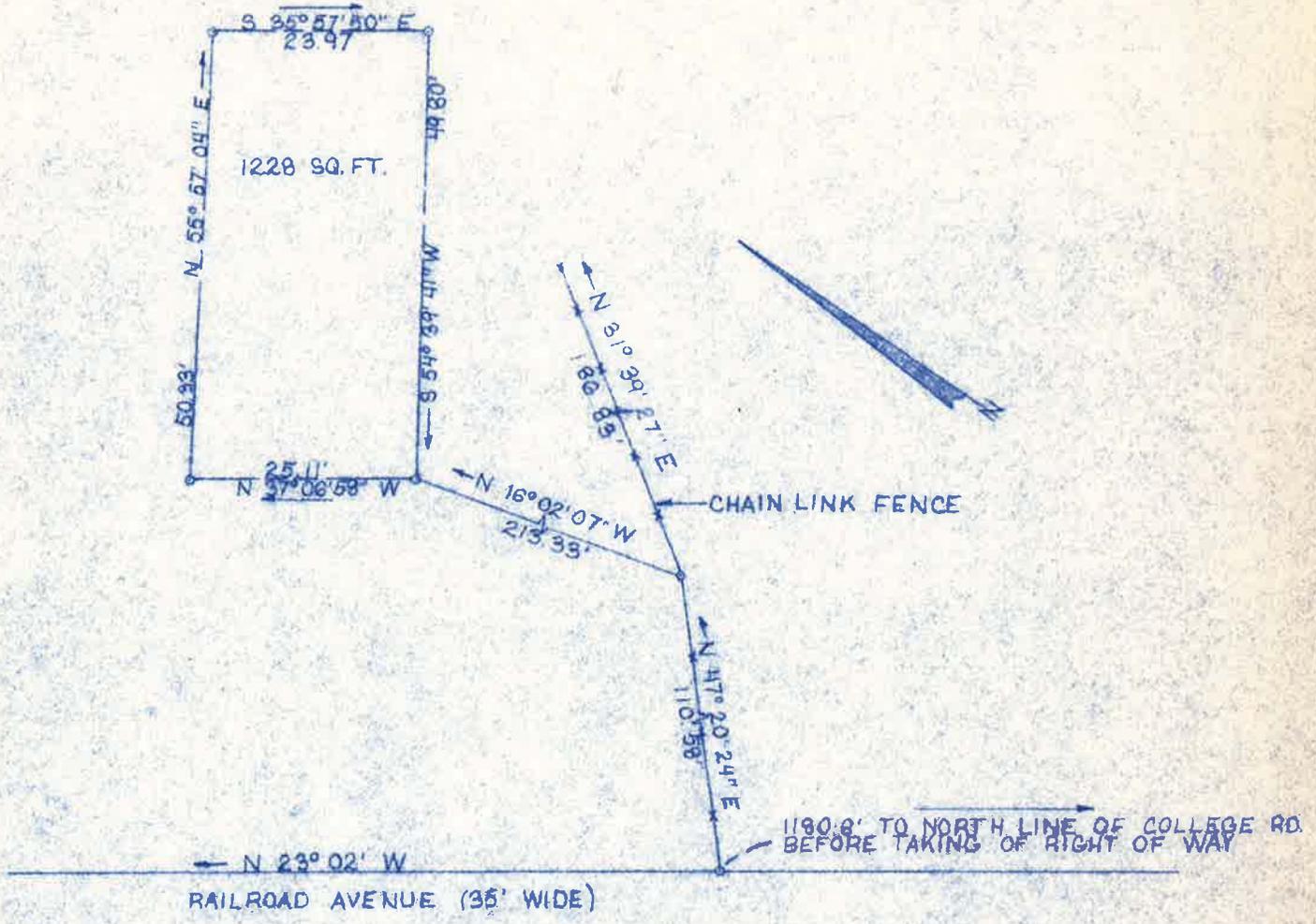
On behalf of our client, Atlantic Coast Environmental, Inc., and  
per Secretary's Order No. 90-HW-01, the land survey plots are attached.

Sincerely yours,



Earl D. Smith, P.L.S.  
EDS/nsh

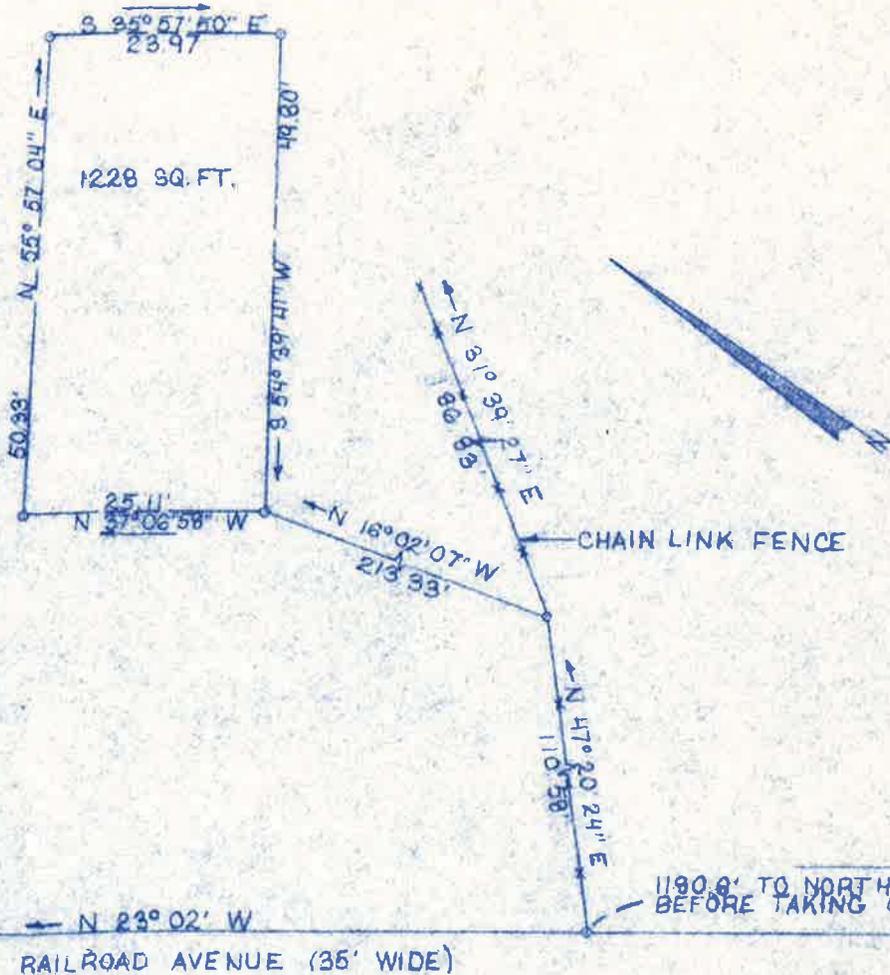
cc: Mr. Frank Henshaw, II, Project Manager  
Ms. Constance C. Holland, Kent County Planning Office



LESSEE : ATLANTIC COAST ENVIRONMENTAL, Inc.

NOTE: THE LAND WAS USED TO MANAGE HAZARDOUS WASTES. NO DISPOSAL WAS CONTEMPLATED BY THE OWNER. NO ACTUAL DISPOSAL OCCURRED HOWEVER, IN CONNECTION WITH THE OPERATION OF THE FACILITY, SOME INCIDENTAL SPILLAGE OCCURRED.

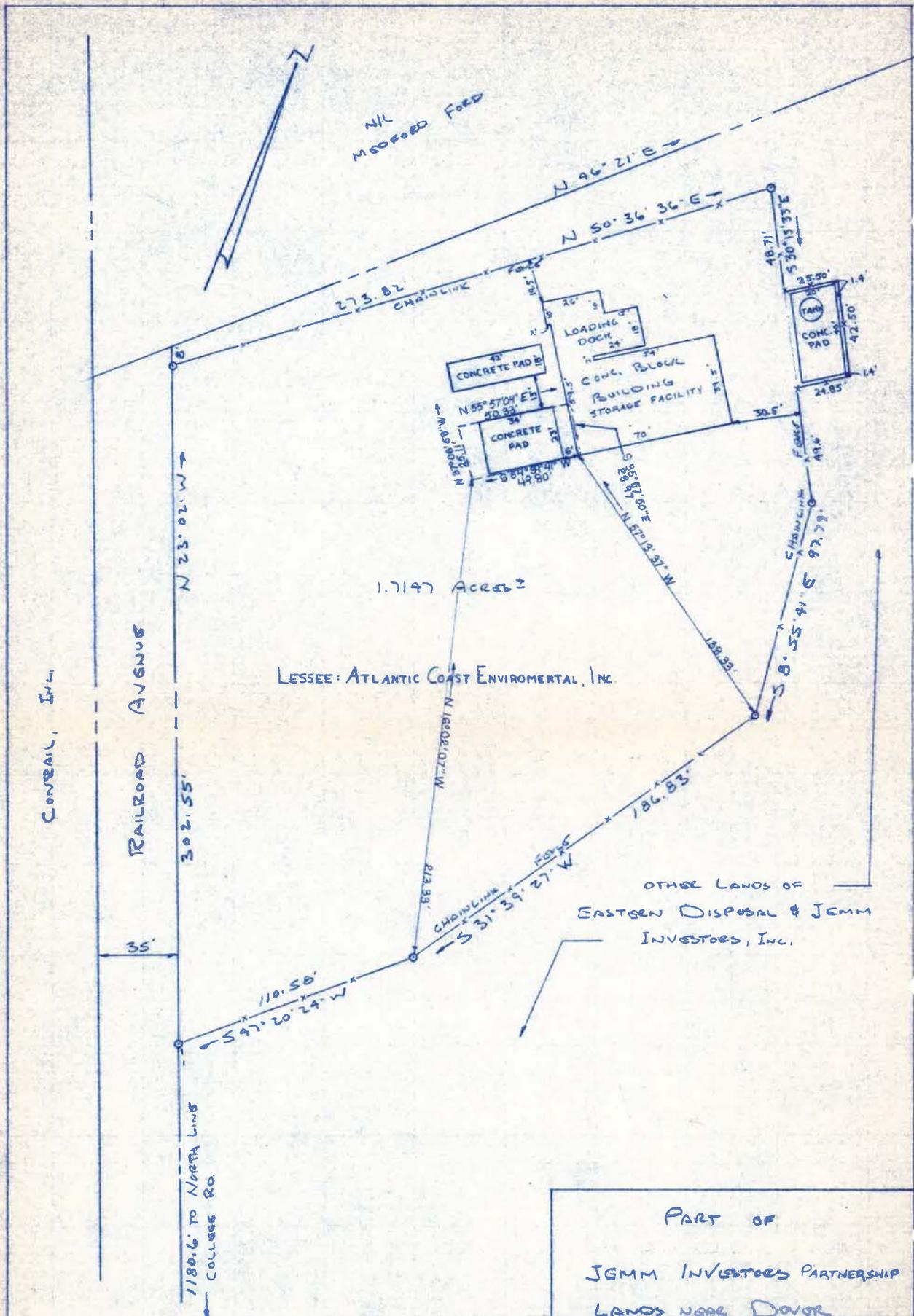
PORTION OF LANDS OF <b>JEMM INVESTORS          PARTNERSHIP</b>	
<b>EAST DOVER HUNDRED          KENT COUNTY, DELAWARE</b>	
EARL D. SMITH, Inc. LAND SURVEYOR DOVER, DELAWARE	SCALE : 1" = 20' DATE : 2/7/90



LESSEE : ATLANTIC COAST ENVIROMENTAL, Inc.

NOTE: THE LAND WAS USED TO MANAGE HAZARDOUS WASTES. NO DISPOSAL WAS CONTEMPLATED BY THE OWNER. NO ACTUAL DISPOSAL OCCURRED. HOWEVER, IN CONNECTION WITH THE OPERATION OF THE FACILITY, SOME INCIDENTAL SPILLAGE OCCURRED.

PORTION OF LANDS OF <b>JEMM INVESTORS          PARTNERSHIP</b>	
<b>EAST DOVER HUNDRED          KENT COUNTY, DELAWARE</b>	
EARL D. SMITH, Inc. LAND SURVEYOR DOVER, DELAWARE	SCALE : 1" = 20' DATE : 2/7/90



1. THE LAND HAS BEEN USED TO MANAGE HAZARDOUS WASTES;
2. ITS USE IS RESTRICTED UNDER CONDITION 3; AND
3. THE SURVEY PLAT AND RECORD OF THE TYPE, LOCATION AND QUANTITY OF HAZARDOUS WASTES DISPOSED OF WITHIN EACH CELL OR AREA OF THE FACILITY REQUIRED IN THE NOTICE TO LOCAL LAND AUTHORITIES HAVE BEEN FILED WITH THE LOCAL ZONING AUTHORITY OR THE AUTHORITY WITH JURISDICTION OVER LOCAL LAND USE AND WITH THE SECRETARY OF DNREC.

PART OF

JEMM INVESTORS PARTNERSHIP

LANDS NEAR DOVER

EAST DOVER HUNDRED

KENT COUNTY - DELAWARE

EARL D. SMITH  
LAND SURVEYOR  
DOVER, DEL.

1" = 40'

2/7/90

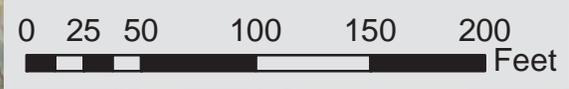


Attachment C  
GIS Map of Facility

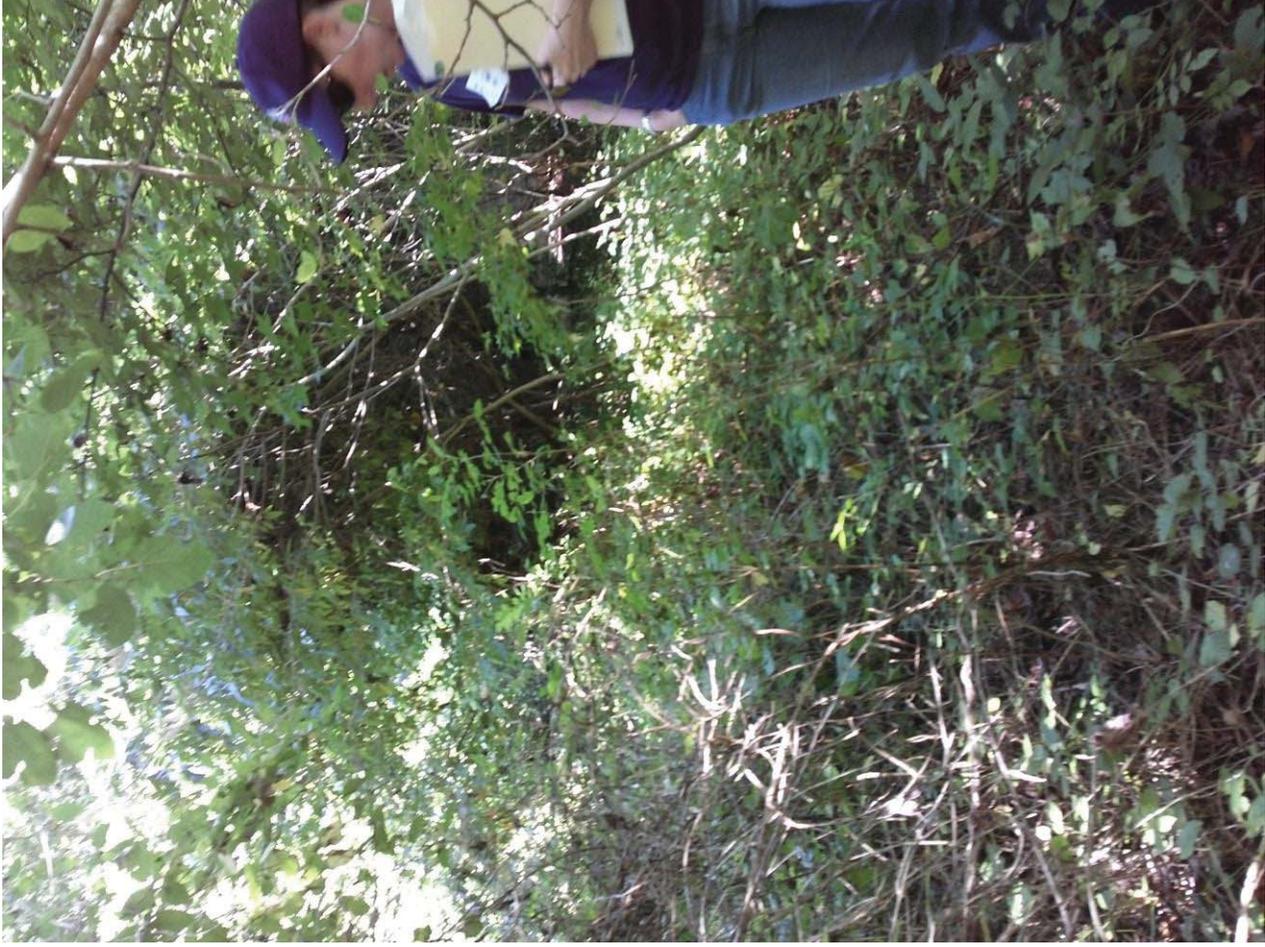


**Atlantic Coast Environmental**  
**225 State College Rd**  
**Dover DE 19901**  
**EPA ID# DED000796300**

-  Leased Parcel (Entire Facility)
-  Fence Line
-  Waste Pile Cap



Attachment D  
Inspection Photos



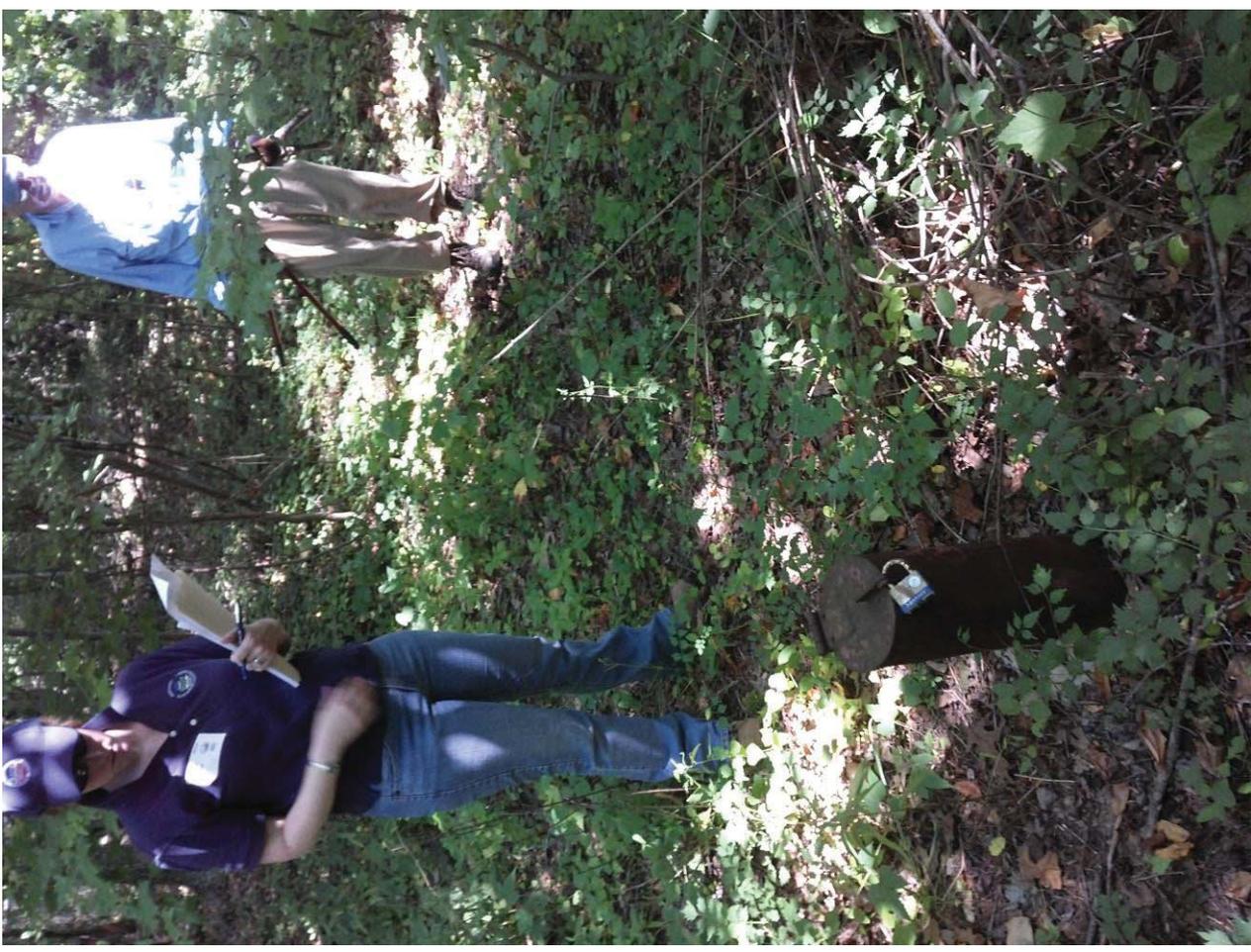
Placemark 1 – Waste Cap Area



Placemark 2 – MW-4



Placemark 3 – MW-3



Placemark 5 – MW-7



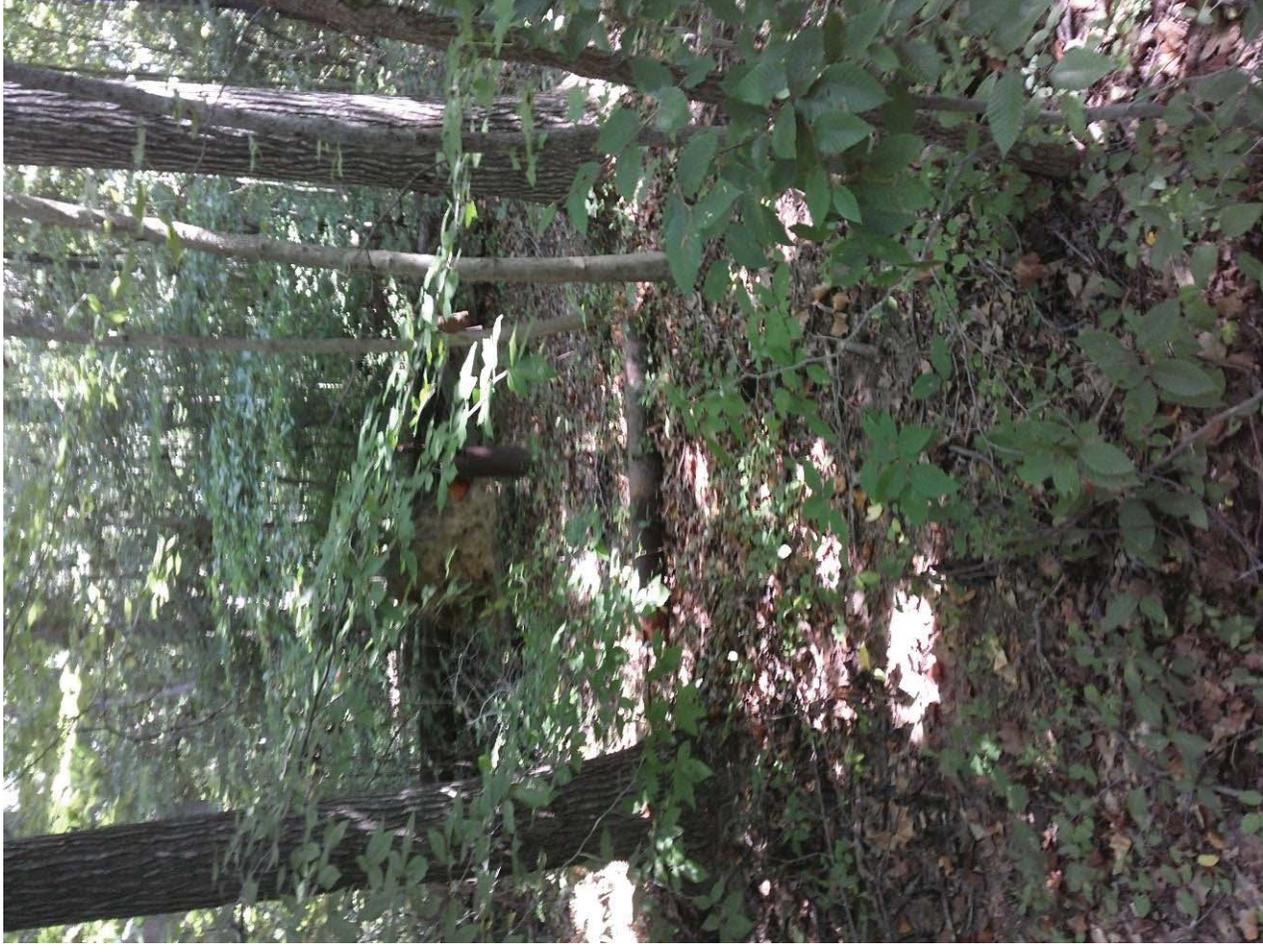
Placemark 5\_1\_1 – Building view from MW-7



Placemark 5\_2\_2 – Building view from MW-7



Placemark 7 – MW-2 and 2D



Placemark 8 – MW-5 and 5D outside fenceline



Placemark 9 – Damaged fence



Placemark 10 – Tree on fence



Placemark 11 – MW-1



Placemark 12 – MW-1D



Placemark 14 – Entry Gate



Placemark 15\_1 – MW-6



Placemark 15 – MW-6



Placemark 16 – MW-5D



Placemark 16\_1 – MW-5D



Placemark 17 – MW-5



Placemark 17\_1 – View of fence from MW-5



Placemark 18 – MW-10



Placemark 20 – MW-8



Placemark 21 – MW-9



Placemark 21\_1 – MW-9

Title	Date Created	Latitude	Longitude	Northing	Easting	Description	Comments
Placemark 1	Wed Aug 27 11:18:39 AST 2014	39.18256762	-75.5524863	430715	617665	Waste cap area	
Placemark 2	Wed Aug 27 11:21:59 AST 2014	39.18269151	-75.55224623	430760	617734	MW-4	
Placemark 3	Wed Aug 27 11:24:35 AST 2014	39.18265844	-75.55203667	430748	617793	MW-3	
Placemark 5	Wed Aug 27 11:30:21 AST 2014	39.18287451	-75.55241736	430827	617685	MW-7	3 photos
Placemark 7	Wed Aug 27 11:33:29 AST 2014	39.18297144	-75.55237955	430862	617696	MW-2 and 2D	
Placemark 8	Wed Aug 27 11:37:26 AST 2014	39.1829996	-75.55234912	430872	617705	MW-5 and 5D outside fenceline	
Placemark 9	Wed Aug 27 11:41:32 AST 2014	39.18285899	-75.55256824	430821	617642	Damaged fence	
Placemark 10	Wed Aug 27 11:43:06 AST 2014	39.18285899	-75.55257129	430821	617641	Tree on fence	
Placemark 11	Wed Aug 27 11:45:03 AST 2014	39.18256872	-75.55280504	430716	617575	MW-1	
Placemark 12	Wed Aug 27 11:46:02 AST 2014	39.18256871	-75.5528081	430716	617574	MW-1D	
Placemark 14	Wed Aug 27 11:51:26 AST 2014	39.18171789	-75.5524321	430406	617680	Entry gate	
Placemark 15	Wed Aug 27 12:04:34 AST 2014	39.18308352	-75.55242483	430903	617683	MW-6	2 photos
Placemark 16	Wed Aug 27 12:07:53 AST 2014	39.18306952	-75.55226562	430898	617728	MW-5D	2 photos
Placemark 17	Wed Aug 27 12:09:09 AST 2014	39.18303617	-75.55225195	430886	617732	MW-5	2 photos
Placemark 18	Wed Aug 27 12:12:50 AST 2014	39.18301544	-75.55209128	430878	617778	MW-10	
Placemark 20	Wed Aug 27 12:14:57 AST 2014	39.18330777	-75.55219095	430985	617750	MW-8	
Placemark 21	Wed Aug 27 12:16:45 AST 2014	39.18319214	-75.55228363	430943	617723	MW-9	2 photos