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Division of Environmental Remediation

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Voluntary Cleanup # V-00525-6
T&A Code # D661

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Enforcement Memo Sent:	03/06/02

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Reports Submitted:	Phase I Environmental Assessment Report - August 2000
	Phase II Environmental Assessment Report - December 2000

Voluntary Cleanup Program
Investigation Work Plan

Item	Notes
Prior Site Uses/Contamination	The prior uses of the site should be identified, including any specific processes or chemicals. This information assists in developing and confirming the scope of work.
Surrounding Land Uses	The surrounding land uses should be described. This information is needed to support the exposure assessments and the site investigation. It can also influence the types of site use restrictions or controls that may be needed.
Scope of Work	All investigations must contain reliable information that adequately defines the nature and extent of site contamination in all environmental media and, if applicable, threats to fish and wildlife resources.
Methods of Investigation	The methods used to handle environmental samples and data must be specified (in SOPs).
QA/QC	The work plan must describe the QA/QC program proposed to insure that the environmental data acquired during the project will be reproducible, accurate, representative, comparable, and complete.
Source Areas	The scope of the investigation must be sufficient to determine if the site contains source areas, and if so, to define their extent.
Exposure Assessments	On-site and off-site exposure assessments must be completed. The work plan should give enough detail to document that the assessments will adequately characterize all actual/potential public health and environmental exposures due to site contamination.
Documentation and Reporting	The work plan should specify the information that will be included in the final report to ensure that the information supplied will be sufficient for making remedial decisions.
Health and Safety Plan (HASP)	A worker HASP must be prepared that meets all regulatory requirements.
Citizen Participation	A mailing list of interested parties should be established, and a fact sheet should be prepared and sent to those on the mailing list so that notice of the field work is received at least one week prior to the start of work.

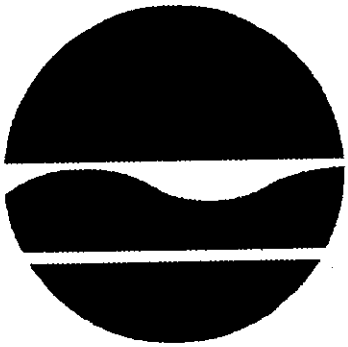
Voluntary Cleanup Program
Investigation Final Report

Item	Notes
Compliance with the Work Plan	This is an overall evaluation of the adequacy of the investigation. Unexpected conditions and any deviations from the work plan should be described and evaluated to determine if more work is needed.
Nature and Extent of Contamination/ Identification of Source Areas	The final report should clearly define the contaminants of concern, impacted media, volumes and limits of contamination, concentration ranges, and additional information as needed to define the nature and extent of contamination.
Exposure Assessments	The results of the exposure assessments should be presented with clear conclusions about actual or potentially complete exposure pathways.
Data Usability Summary Report (DUSR)	The DUSR must be complete and indicate if the data is usable. Problems with the data must be identified and resolved. (A copy of the guidance on the development of DUSRs is attached.)

Division of Environmental Remediation

VOLUNTARY CLEANUP PROGRAM INTERNAL PROCEDURES

FOR DEPARTMENT STAFF USE



March 2002

New York State Department of Environmental Conservation

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VOLUNTARY CLEANUP PROGRAM
INTERNAL PROCEDURES

DISCLAIMER

This draft document gives guidance to DEC staff only on how to administer the Department's Voluntary Cleanup Program. It is not a statute or regulation, and does not create legally binding obligations on any person, including employees of New York State nor does it create a waiver for any person from any obligations created by applicable state and/or federal law. The use of this guidance in any particular circumstance will depend on the specific facts associated with each matter. This guidance may be subject to change at the discretion of the Department.

SECTION 1 PURPOSE AND GOALS OF THE PROGRAM

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal, and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The VCP was developed to enhance private sector cleanups and to reduce the development pressures on "Greenfield" sites.

New York's VCP is a cooperative approach among the New York State Department of Environmental Conservation (the Department), the New York State Department of Health (NYSDOH), and Volunteers to investigate and/or remediate contaminated sites and return these sites to productive use. Under the VCP, a Volunteer enters into a Voluntary Cleanup Agreement (VCA) with the Department and thereafter submits one or more work plans to investigate and/or remediate a site.

The goal under the VCP is to remediate the site to a level that is protective of public health and the environment for the Contemplated Use of the property (see §3.3). When the Volunteer completes remediation, the Department provides a release from the Department for remedial liability for the work done and the contaminants addressed, with standard reservations (see §3.5). If the investigation completed under Department oversight and pursuant to a VCA indicates that no remediation is needed to meet the remedial goal of the VCP, a release will also be issued. All activities performed under the VCA are carried out under the oversight of the Department. The Volunteer pays the State's costs.

Currently, the Department's ability to administer the VCP is based on the authority found in several parts of New York's Environmental Conservation Law (the "ECL") and Navigation Law ("NL"). These laws differ regarding the treatment of petroleum and hazardous wastes/substances and the Department's legal authority. In particular, hazardous wastes and hazardous substances are managed somewhat differently under the ECL when contrasted with petroleum issues under the NL. These distinctions are analyzed by the Department's staff during the application process.

The Department has delegated responsibility for managing the VCP to staff in the Divisions of Environmental Remediation (DER) and Environmental Enforcement (DEE). Other program divisions may manage voluntary cleanup projects consistent with these procedures. The NYSDOH is responsible for determining that work completed under VCAs at voluntary cleanup sites is protective of public health and appropriate for the Contemplated Use of the property. Regional staff are typically assigned as Project Managers for the sites and serve as the main contacts for Volunteers and the public. Central Office staff are responsible for providing guidance and oversight to promote statewide consistency in the program. In some cases, staff from Central Office will be assigned to manage a specific voluntary cleanup project.

Information regarding various aspects of the program can be obtained from the Department contacts listed in Appendix A. A list of abbreviations used in this document is given in Appendix F. In this document, the term "VCA" is intended to refer to both agreements and orders.

SECTION 2 GENERAL

2.1 Definitions

The following definitions are program-specific and apply only to the VCP as described in this guidance. The decision about whether a Volunteer is a PRP, innocent owner, or innocent non-owner is made by the Project Attorney.

2.1.1 **"Hazardous Substance Site"** - one that contains any kind of hazardous waste, hazardous substance (including manufactured gas plant constituents), solid waste, or a mixture of petroleum with either hazardous waste, hazardous substances, or solid waste.

2.1.2 **"Petroleum Site"** - one that contains only petroleum contamination.

2.1.3 **"PRP"** - Potentially Responsible Party - a party, other than an innocent owner as defined below, responsible under law to remediate contamination disposed on, or released from, a property, including a discharger of petroleum.

2.1.4 **"Innocent Owner"** - An owner who meets all of the following criteria:

a. Acquired title to the property in an already contaminated condition after the cessation of the disposal or discharge of the contamination;
b. Did not participate in the operation of the facility from which contamination was released;
c. Has not by its own actions caused a release of contaminants into the environment at the site; and
d. Is not responsible under law to remediate contamination disposed on or released from a property other than as a result of ownership subsequent to the cessation of the disposal or discharge of the contamination.

2.1.5 **"Innocent non-Owner"** - someone who is not a PRP under the law and has not acquired title to the property prior to entering into the VCP.

2.2 Eligibility

2.2.1 **"Eligible Sites"** - All sites are eligible for the VCP except the following:

a. Sites listed as Class 1 in the New York State Registry of Inactive Hazardous Waste Disposal Sites as referenced in 6 NYCRR Part 375-1.8;
b. Sites on the United States Environmental Protection Agency's (USEPA) National Priorities List (NPL, as noted on the USEPA's website at http://www.epa.gov/superfund/sites), other than Onondaga Lake NPL Subsites;
c. Hazardous waste management sites regulated pursuant to ECL Article 27, Title 9 and the 6 NYCRR Part 370 regulations promulgated pursuant thereto;
d. Sites that are currently subject to a Department or USEPA enforcement action may be deemed ineligible by the Department's Project Attorney.

2.2.2 **"Eligible Parties"** - Any party is eligible to become a Volunteer **except** those listed below:

a. A discharger, as defined by law, at a petroleum site other than one who has purchased the site after the cessation of petroleum discharge;
b. A PRP, other than an "innocent owner" as defined herein, at a Class 2 site listed on the New York State Registry of Inactive Hazardous Waste Disposal Sites;
c. A PRP subject to any "enforcement action" requiring the PRP to remove or remediate at the site a hazardous substance as defined in 6 NYCRR Part 597. For this purpose, an "enforcement action" commences against a PRP:
    (i) Under State law: upon issuance of a notification of violation or upon commencement of enforcement under ECL, Article 71 or upon issuance of an accusatory instrument under the Criminal Procedure law;
    (ii) Under federal law: upon issuance of any notification pursuant to federal law that commences an administrative or judicial proceeding seeking to require the removal or remediation of hazardous substances.

Questions regarding eligibility should be directed to the Department's Project Attorney.

2.3 DER Technical Guidance Document

Procedures, techniques, and requirements for completing investigations and the remediation of VCP sites are described in the document, "DER Technical Guidance Document for Site Investigation and Remediation," dated (*Draft*). Special cases specific to the VCP that are not covered in the DER Technical Guidance Document are addressed in this document.

2.4 Permits

At its discretion, the Department may exempt Volunteers from having to obtain permits issued by the New York State Department of Environmental Conservation. **All** Volunteers must comply with the substantive requirements of the Department's permit programs, but they may not be subject to the procedural requirements of those permit programs. This requires the Volunteer to follow the application process, but no formal permit is issued. The Volunteer must obtain all permits not issued by this Department including federal permits and permits issued by other New York State agencies and local authorities (e.g., the U.S. Army Corps of Engineers, the New York Department of State, etc.).

2.5 Records Management

The Project Manager is responsible for maintaining the official records for a given VCP project.

2.6 State Environmental Quality Review Act (SEQRA)

2.6.1 The following paragraph describes when a voluntary cleanup project is subject to the requirements of the State Environmental Quality Review Act (SEQRA). Regulations on the SEQRA process can be found in 6 NYCRR Part 617. Guidance on completing the SEQRA process, can be found on the Department's internal Website of the Division of Environmental Permits http://internal/home/dcs/index.html.

2.6.2 All **investigation activities** under the VCP, regardless of the contaminants involved, are exempt from a SEQRA analysis. **Remedial activities** are subject to SEQRA. VCAs and orders with PRPs under the VCP are considered enforcement proceedings. SEQRA specifically excludes civil or criminal enforcement proceedings from review. Therefore, only innocent non-owners must complete SEQRA reviews unless the cleanup is part of a project (e.g., a shopping center) that requires State or local review under the SEQRA independent of the VCP. If the issuance of a Negative Declaration is appropriate, it will be issued before the approval of a Remedial Action Work Plan. Fulfilling the SEQRA requirements for a Positive Declaration or Type I project is handled on a case-by-case basis.

2.7 Cost Recovery

2.7.1 General:

The Volunteer is responsible for payment of all State costs incurred in the negotiation and implementation of the VCA. This also includes any oversight performed by the NYSDOH. The Department will review the investigation and remediation reports and determine if the project has been completed satisfactorily. Invoices will be sent to the Volunteer after the work for each phase has been approved or the VCA has been terminated. Invoices will be mailed according to the terms specified in the VCA. If past costs are included in the VCA, a bill for these services may be prepared before issuance of the completion letter. The amount of past costs and the duration of the scope of work under the VCA will determine if a separate bill for past costs will be sent to the Volunteer rather than sending one invoice which combines both past and oversight costs.

2.7.2 Preparation of Cost Recovery Bill:

The Payments and Cost Recovery Section (PCRS) in the Bureau of Program Management (BPM) will prepare a bill for oversight costs (including those incurred by the NYSDOH, as appropriate). Bills will be sent either on a periodic basis (if required in the VCA) or upon receiving notice from the Project Manager/Attorney that the investigation/remediation has been completed.

The VCA states that after submittal of the investigation/remediation reports, the Department will indicate in writing its approval or disapproval of the work. When the work has been approved, cost recovery actions are triggered by sending a copy of this written determination (Forms 7 or 9) to the Director, BPM. If the Volunteer fails to submit acceptable work, the trigger to bill will be the letter to the Volunteer that terminates the VCA.

2.7.3 Review and Distribution of Cost Recovery Bill

Before mailing, the cost recovery bill will be reviewed by appropriate BPM staff, the Project Manager, and the Project Manager's supervisor.

The BPM will then send the cost recovery bill to the Volunteer with copies to:

a. Project Attorney

b. DEE Central Office Legal Coordinator
c. Project Manager
d. PCRS

2.7.4 Revenue Received

The funds will be deposited in the appropriate account(s) associated with the source of funding of the expenditures billed.

2.7.5 Revenue Not Received

If the Volunteer refuses to pay the bill, the Director, BPM will notify the individuals in §2.7.3 above and appropriate action will be taken following existing cost recovery procedures and the terms of the VCA.

2.7.6 Tracking System

All relevant cost recovery data will be entered into the VCP tracking system by BPM staff in the PCR Section.

2.8 Operation, Monitoring and Maintenance

2.8.1 The need for operation, monitoring, and maintenance (OM&M) at a VCP site is dependent upon site-specific issues. Often, remediation consists solely of a removal action that does not require OM&M beyond the completion of the field work. For projects where the protectiveness of the remedy is dependent on continued OM&M, there must be a formal OM&M Plan with specific requirements including reporting. This includes cases where the effectiveness of the remedy depends upon the use of engineering or institutional controls. The Assignable Release, described in §3.5, can be revoked if the Volunteer fails to implement the OM&M Plan to the Department's satisfaction. OM&M Plans are approved using the same procedure as an investigation work plan (see §5.7). Guidance on preparing OM&M Plans can be obtained from the draft DER Technical Guidance Document and from staff in the Operations and Maintenance Section, Bureau of Hazardous Site Control. A draft of the OM&M Plan (outline for extensive projects) should be submitted/included at the time of the draft RAWP and will typically be finalized subsequent to the construction of the remedy.

2.8.2 As described in Sections 3 and 7 below, recent versions of the model Voluntary Cleanup Agreement require that when applicable, Volunteers must submit to the Department an annual certification that institutional or engineering controls required for the remedy are still in place, have not been altered, and are still effective.

SECTION 3 AGREEMENTS AND CONSENT ORDERS

3.1 General

The Department's Project Attorney provides the Volunteer with a legally enforceable document which in most cases will be a Voluntary Cleanup Agreement (VCA). Occasionally, the Volunteer or the Volunteer's attorney may request that the document be described and written as an "Order," due to various legal, cost recovery, and tax ramifications. As an example, VCP projects completed under an agreement that includes the disposal in New York State of soil that is hazardous waste would be subject to the payment of certain fees and taxes whereas an exemption exists for VCP projects completed under an Order. If this issue is raised, refer the Volunteer to the Project Attorney or (if the project is not yet assigned) to the Central Office Legal Coordinator for further discussions.

In this document, the term "VCA" is intended to refer to both agreements and orders. The latest version of the model VCA should be used as the basis for creating a site-specific agreement and may be obtained from the Central Office Legal Coordinator.

Each VCA generally contains the following paragraphs:

3.1.1 Definitions: All VCAs must include definitions of the following **site-specific** terms: Contemplated Use of the site, existing contamination (see §3.4), site description, and Volunteer.

3.1.2 Development, Performance and Reporting of Work Plans: This paragraph details the process of submitting and approving work plans, annual reports, and final reports. The process for issuing an assignable release is also described.

3.1.3 Progress Reports: This paragraph requires that status reports be submitted (usually on a monthly basis) during the implementation of the work plans and specifies the information that should be contained in the reports.

3.1.4 Enforcement: This paragraph states that the VCA is enforceable as a contract and provides a force majeure defense under limited circumstances. The exception to this would be if the instrument is an Order and if so, it would be enforceable like any other Commissioner's Order.

3.1.5 Entry upon Site: This paragraph provides the Department with access to the site and records given reasonable notice. It also gives the Department the right to take samples and make measurements.

3.1.6 Payment of State Costs: The Volunteer commits to reimburse the State as follows:

Volunteer	Reimbursement
PRP (as defined herein)	Past costs and all costs associated with negotiating and implementing the VCA including future oversight costs
Other	All costs associated with negotiating and implementing the VCA including future oversight costs

3.1.7 Reservation of Rights: This paragraph reserves rights for the Department with respect to investigation and remediation, summary abatement, and noncompliance. The Volunteer also reserves rights with respect to assertions of remedial liability, due process, and contribution protection under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

3.1.8 Indemnification: This paragraph requires the Volunteer to indemnify the State and the Department for all claims except those caused by the State's gross negligence or willful and wanton reckless acts.

3.1.9 Public Notice: This paragraph requires the Volunteer to file a notice with the County Clerk regarding the Volunteer's participation in the VCP. A form notice is attached to the VCA. The Volunteer must also notify the Department if ownership of the site is to be conveyed to a different party.

3.1.10 Declaration of Covenants and Restrictions: Within 30 Days after the Department's approval of a Remedial Action Work Plan which relies upon one or more institutional controls, or within 30 Days of the Department's determination that additional remediation is not needed based upon use restrictions, the Volunteer must submit for Department approval a Declaration of Covenants and Restrictions to run with the land which provides for covenants and restrictions consistent with the Work Plan. The Volunteer must file the instrument with the County Clerk (or the City Register) in the county in which the Site is located within 30 Days of the Department's approval of such instrument. The Volunteer must provide the Department with a copy of the instrument certified by the County Clerk (or the City Register) within 30 Days of recording. Restrictions are not required in every case. A form declaration is attached to the VCA. Assignable Releases (see §3.5) are not issued by the Department until it has received proof that an acceptable restriction has been put into place.

3.1.11 Communications: This paragraph sets forth the parties who are to receive notices, correspondence, and copies of work plans under the terms of the VCA.

3.1.12 Termination of Agreement: The process for terminating a VCA by either the Volunteer (for any reason or no reason) or the Department (only for cause) is explained in this section.

3.1.13 Dispute Resolution: A process is established for resolving disputes.

3.1.14 Miscellaneous: This paragraph sets out various terms which are not detailed in the previous paragraphs.

3.2 Preparation of Voluntary Cleanup Agreements

The VCA is drafted by the Project Attorney and executed first by the Volunteer and then the Department. The VCA is signed at the start of the project and prior to the negotiation of any work plan. Work plans are developed after the Department formally executes the VCA. The Project Manager is responsible for providing the Project Attorney with a definition of existing contamination (see §3.4) to insert into the VCA. The Project Manager should also work with the Project Attorney to verify that the definition of the "site" is clear and legally defensible. The Project Attorney should make the Project Manager aware of any changes to the standard VCA and provide an opportunity for comment on items that could affect the technical aspects of the project.

3.3 Contemplated Use

Under the VCP, cleanups must be protective of public health and the environment under the conditions of the Contemplated Use of the site. In the VCP application, the Volunteer is required to specify the Contemplated Use of the site. The VCA shall specify one of four different site use categories, as follows:

3.3.1 **Unrestricted** - To qualify for the unrestricted use category, site conditions after remediation must be such that no engineering controls, use restrictions, or any other institutional controls are needed to make the site protective of public health and the environment under any use. This also applies to sites where a no further action decision has been made after the site investigation.

3.3.2 **Restricted Residential** - Residential uses such as homes, apartments, mobile home parks, dormitories, schools, and day-care facilities are allowed but require engineering and/or institutional controls for the use to be protective.

3.3.3 **Restricted Commercial** - Residential uses are not allowed in this category. Commercial uses are allowed but require engineering controls and/or institutional controls. Some types of "commercial" uses that could create "residential" types of exposures are excluded such as day-care and health care facilities.

3.3.4 **Restricted Industrial** - Residential and commercial uses are not allowed. Industrial uses are allowed but they require the use of engineering controls and/or institutional controls.

For sites where the protectiveness of the remedy is dependent upon the imposition of use restrictions, the Volunteer must submit a proposed instrument (e.g., deed restriction) to the Department for review and approval within 30 days of the Department's approval of a Remedial Action Work Plan. The instrument must be filed and made effective within 30 days of the Department's approval of the instrument.

3.4 Existing Contamination

One of the steps involved in creating a site-specific VCA is to develop a definition of "existing contamination." The distinction between existing contamination and "covered contamination" is that covered contamination is that which remains on the site as of the date the Department's liability release is issued. In cases where active remediation has been completed, covered contamination refers to that which exists after the remedy has been implemented. The Project Attorney should ask the Project Manager to draft the definition of existing contamination for inclusion in the VCA.

The amount of information available about the nature and extent of existing contamination varies significantly from project to project. To the extent that information is available, the definition of existing contamination should include the following:

3.4.1 A list of the class/classes of contaminants such as volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); metals; PCBs; polycyclic aromatic hydrocarbons (PAHs); pesticides; herbicides; petroleum compounds; cyanides; which are present at the site when the VCA is drafted;

3.4.2 If the list is limited or there are predominant contaminants, specific contaminants can be listed after the corresponding contaminant class (e.g., "volatile organic compounds (VOCs) including but not limited to trichloroethene (TCE) and vinyl chloride and metals including lead and chromium");

3.4.3 A list of the titles, dates, and authors of relevant investigation reports that provide specific information regarding the contaminants listed;

3.4.4 In some cases, it is appropriate to include what is known regarding the location of the contamination. This may be needed to clarify and limit the scope of the investigation, remediation, and the area of "covered contamination." Often, the Volunteer wants to limit the project to a specific portion of a site (e.g., under and around a former tank storage area). In these cases, including reference to a location will help to make it clear that any release would be limited to the "site" that is the subject of the agreement.

3.5 Assignable Releases

As discussed below, to qualify for an Assignable Release (the Release) under the VCP, the Volunteer must perform substantive work to make the site protective of public health and the environment for the Contemplated Use. The model Release from the Department does not extend to other agencies.

The Department will issue a Release once the Department agrees that the Volunteer has successfully carried out the Remedial Action Work Plan or that no remediation is necessary following an investigation under the VCP. The Release declares that the Department releases, covenants not to sue, and forebears from bringing any action, proceeding, or suit against the Volunteer, including further investigation or remediation, subject to the reservations set forth below. A Natural Resources Damage (NRD) release will be provided to all Volunteers except PRPs.

A Volunteer must perform substantive work under a VCA to receive a Release from the Department. Work done without Department oversight and approval may not be usable under this program and may not be sufficient to warrant a release from the Department. This includes data from previous investigations, the submission of confirmatory sampling and analytical data after remediation has been performed, as well as the imposition of use restrictions in lieu of investigation and remediation.

The Release is subject to the following reservations for further investigation or remediation the Department deems necessary due to:

3.5.1 off-site migration of petroleum (and, if the Volunteer is a PRP, migration off-Site of contaminants resulting in impacts that are not inconsequential to environmental resources, to human health, or to other biota);

3.5.2 environmental conditions or information related to the Site which were unknown at the time the Release and Covenant not to Sue is issued and which indicate that the Contemplated Use cannot be implemented with sufficient protection of human health and the environment;

3.5.3 Volunteer's failure to implement the VCA to the Department's satisfaction (e.g., not completing OM&M, not paying State costs, not maintaining use restrictions, etc.);

3.5.4 fraud committed by Volunteer in entering into or implementing the VCA;

3.5.5 a release or threat of release at the Site of any hazardous substance (as that term is defined at 42 USC 9601[14]) or petroleum (as that term is defined in Navigation Law § 172[15]), other than Covered Contamination; or

3.5.6 causing or allowing the use of the Site to change from the Contemplated Use to one requiring a lower level of residual contamination before that use can be implemented with sufficient protection of human health and the environment.

The Release does not affect the Commissioner's summary abatement powers. The Release does not apply to the New York State Department of Law (the Office of the Attorney General), the Spill Fund, or any other State agency. Note that the Attorney General has independent legal enforcement authorities regarding contaminated sites that are separate and distinct from the Department's. If applicable, the topic of obtaining liability releases from the other State agencies should be referred to the Department's Project Attorney.

SECTION 4 APPLICATION AND AGREEMENT APPROVALS

4.1 Submission of Applications

Applicants must submit site-specific applications. VCAs will not be approved without complete applications. See Appendix B for the VCP Application Form.

4.1.1 Two copies of the application with all of the accompanying attachments, including one with original signatures, should be submitted to the Brownfields/Voluntary Cleanup Section (B/VCS), New York State Department of Environmental Conservation, Division of Environmental Remediation, 625 Broadway, Albany, New York 12233-7012.

4.1.2 Two copies of the application with all of the accompanying attachments, including one with original signatures, should be submitted to the appropriate Department Regional VCP Coordinator (see Appendices A and B for names and addresses). If the application will be submitted with large attachments, additional copies of the attachments (double-sided is preferred) may be needed (confirm with Regional VCP Coordinator). The cover of all site documents should include the official site name and identification number (once issued).

4.2 Distribution of Applications

4.2.1 The Regional VCP Coordinator will forward a copy of the application and attachments to:

a. Regional Attorney and Regional Spill Engineer (for petroleum contamination projects);
b. DEE Field Unit Leader (may not need technical attachments) and Regional Hazardous Waste Remediation Engineer (all other contamination or mixtures of contamination);
c. Local Health Units (either County Health Departments or NYSDOH District Offices), as appropriate;

4.2.2 The Central Office B/VCS will forward a copy of the application with attachments to:

a. Appropriate Central Office VCP Coordinator;
b. Central Office Legal Coordinator (may not need technical attachments);
c. New York State Department of Health in Troy; and
d. Central Office Division of Fish and Wildlife Coordinator (without attachments);

4.3 Site Identification Numbers, Time and Activity (T&A) Codes, and Tracking

4.3.1 The B/VCS will assign an official site name and site identification number upon receipt of the application. The official site name and number should be used on all site correspondence (including those from the Volunteer) and reports. The site number consists of the alpha "V," a five-digit numeric, and a one-digit region number (e.g., V00123-8). The five-digit numeric codes are assigned sequentially, statewide, in the order that applications are received.

4.3.2 The general T&A Code for Department employees working on the VCP is **B640.** The general T&A Code should be used by all Department employees spending time on VCP matters not associated with a site-specific T&A code. Upon receipt of an application, the BPM will assign a site-specific T&A Code for all sites, including petroleum sites. T&A codes are established upon receipt of the VCP application and should be used by appropriate Department staff for all project-related work. Staff should not spend a significant amount of time working on a project when the Volunteer has not submitted an application and a Time and Activity code has not been established.

4.3.3 Upon receipt of the application, the B/VCS will enter the site name, number, T&A code, and initial project data from the application into the VCP tracking system. If the site is also found to be listed in the Registry of Inactive Hazardous Waste Sites, the B/VCS will enter an appropriate cross-reference in the tracking system. The B/VCS will also enter the start/end dates through the execution of the VCA. Continued maintenance/update of data then becomes the responsibility of the Project Manager. Appendix E contains definitions for the start and end of each major program element.

4.3.4 Regional staff (preferably the Project Manager) must update the tracking system regularly (i.e., at least monthly). Information on each project element (see Appendix E for definitions) should be kept up-to-date and accurate.

4.4 Establishment of Project Team

4.4.1 The Project Team consists of the Project Manager, Project Attorney, Regional Engineer (Spills or Hazardous Waste Remediation), the corresponding Central Office VCP Coordinator, and the NYSDOH Project Manager. If a DER Project Manager was assigned to the site prior to receipt of the VCP application, the former Project Manager should be consulted by the Project Team to maintain continuity and take advantage of information already developed regarding the site. NOTE: if the site will be managed in Central Office, the project manager's supervisor is substituted for the Regional VCP Coordinator for all document routing procedures. The Regional VCP Coordinator should still be copied on significant correspondence.

4.4.2 The Regional Attorney or DEE Field Unit Leader will assign a Project Attorney and notify the Regional and Central Office VCP Coordinators of his/her identity. The Regional Engineer (Spills or Hazardous Waste Remediation) will assign a Project Manager and will notify the Project Attorney and the Regional and Central Office VCP Coordinators of his/her identity.

4.4.3 The Project Manager shall request that a NYSDOH Project Manager be assigned by contacting the appropriate NYSDOH VCP Coordinator (see Appendix A). The basic site information, including site number, is provided to the NYSDOH when the application and attachments are distributed by the B/VCS (see §4.2 above).

4.4.4 The Project Manager will also ensure that a representative from the Division of Fish and Wildlife and Marine Resources is involved at all relevant stages of the project unless the Central Office Division of Fish and Wildlife Coordinator has determined that their involvement is not necessary in accordance with §3.10.1 of the draft DER Technical Guidance Manual.

4.5 Registry Evaluations (non-petroleum sites)

4.5.1 During the evaluation of the application and associated work plans, the Project Manager will prepare a recommendation memorandum through his/her Supervisor to the Site Control Section (SCS), Bureau of Hazardous Site Control (BHSC), regarding the Registry status of the site. If the available information does not indicate that the site would qualify

for inclusion on the Registry, the memorandum will explain the basis for this conclusion. If the site qualifies for inclusion on the Registry, the recommendation memorandum will request that the Registry listing process be deferred by all reviewing parties as long as the project is progressing satisfactorily in the VCP (see below). An initial recommendation is regarding the Registry Status of the site is also given in the approval recommendation memorandum for the VCA (**Form No. 6**).

4.5.2 If the available information indicates that a consequential amount of hazardous waste has been disposed, then the Project Manager shall prepare and attach a listing package proposing a classification commensurate with the level of threat posed by the hazardous waste, regardless of the site's VCP status at that time. If the disposal of a consequential amount of hazardous waste is suspected but not confirmed, the Project Manager shall prepare and submit to the SCS-BHSC, via the recommendation memorandum, a package which identifies the site as a potential (P) Registry site.

4.5.3 The SCS-BHSC will track all sites that have been granted VCP deferrals and will include the VCP tracking number assigned to each, the date of deferral, and the site's proposed Registry classification. The SCS will share this information with all other reviewers in the Registry listing review hierarchy. SCS will likewise record and track all VCP-deferred P-site candidates in the same manner as VCP sites being deferred from Registry listing.

4.5.4 The Project Manager is also responsible for reviewing the Registry status of the site 1) at the end of any site investigations, 2) at the end of any remediation, and 3) if the site's participation in the VCP is terminated prior to the completion of remediation. These evaluations are needed to determine if changes to the site's Registry status are appropriate. If needed, the Project Manager shall submit a memorandum to the SCS-BHSC with a copy to the Project Attorney and the NYSDOH VCP Coordinator asking that a site classification deferral (or a P site investigation deferral) be lifted and the State Superfund (SSF)/Registry listing review process resumed. The memorandum must include a statement regarding the Project Attorney's position on the recommendation.

4.5.5 Once construction of the final remedy is complete (or no further action is selected), maintaining any Registry deferral is contingent upon the Volunteer complying with the requirements of the OM&M Plan (if applicable) and any Institutional Controls imposed as part of the remedy. If these requirements are not met by the Volunteer (see also §3.5 for other reopeners), the Project Manager should work with the SCS-BHSC and Project Attorney to determine if the Registry deferral should be lifted.

4.6 Sites with Multiple Contaminants

4.6.1 As indicated by the definitions given in §2.1, projects that are managed as hazardous substance sites include a wide range of contaminant types including hazardous wastes, hazardous substances, solid wastes, and various mixtures. For hazardous substance sites that also have petroleum contamination, they are to be managed as follows:

a. If the petroleum and hazardous substance contamination is distinct (i.e., can be investigated/remediated separately) and the Volunteer is the discharger, the petroleum contamination should be managed as a separate project under a stipulation.
b. If the contamination is distinct but the Volunteer is not the discharger, the petroleum and hazardous substances should be addressed as one hazardous substance project.
c. If the contaminants are not distinct, the site should be managed as a hazardous substance project.

4.7 Application Approval/Disapproval Letter

4.7.1 The Project Manager shall send a memorandum (**Form No. 1**) to all other regulatory programs in the Region (e.g., Regional Enforcement Coordinator, Air, Water, Solid and Hazardous Materials, Environmental Permits, Spills Unit, Environmental Conservation Officers, and others as appropriate) to inquire if the site or the Volunteer is subject to any enforcement action that would disqualify it from the program. The Project Manager should request written determinations (e-mail replies are acceptable) from each program representative. The Project Manager will also verify the site's status regarding the other technical eligibility issues (e.g., Registry status, NPL status, etc.). If it is learned that the site is already listed in the Registry and this was not indicated on the VCP application, the Project Manager will bring this to the attention of the Project Attorney to consider the eligibility issues. Also, the Project Manager will notify the B/VCS so that an appropriate cross-reference can be created in the tracking system (see §4.3.3). After the enforcement review is completed, the Project Manager will forward a written recommendation regarding eligibility to the Project Attorney (including copies of the replies from the different program representatives) along with an explanation of the basis for the recommendation.

4.7.2 If there is an outstanding enforcement issue that could make the Volunteer ineligible, the Project Manager should review the circumstances with the Project Attorney. If the enforcement issue can be resolved in a short time (e.g., thirty days), the Project Attorney should send a letter to the Volunteer indicating that the eligibility determination will be held in abeyance until the enforcement issue is resolved. The letter should limit the time available to resolve the issue.

4.7.3 The Project Attorney will coordinate all the comments on the application and prepare the application approval/disapproval letter (**Form No. 2**). Applicants should be notified whether or not they are eligible to participate in the program within 45 days of receipt of a complete application. **(The goal is to determine eligibility and notify the Volunteer within 10 business days of receipt of the application).** If an application is deemed incomplete, the Project Attorney will notify the applicant of the deficiency. The applicant may then submit the additional information. If the Project Attorney has questions regarding applicant eligibility or the approval/disapproval of the application, he or she should consult with the Central Office Legal Coordinator and/or the Central Office VCP Coordinator.

4.7.4 If the application does not contain a clear and legally defensible definition of the "site," the Project Manager should include a comment to be sent to the Volunteer by the Project Attorney requesting additional information. The application calls for tax map identifiers, site latitude and longitude, a site location map, and a site plan drawing. In cases where the

boundaries of the site cannot be clearly defined with this information, a survey with metes and bounds may be needed. During the course of the project, the definition of the site boundaries may change. The Project Manager should ensure that the final definition of the site used for the release is accurate.

4.8 Consistency Reviews of Agreement

4.8.1 The Project Attorney is responsible for developing an approvable VCA. The Project Manager must review the definition of the "Site," the definition of "Existing contamination," "Contemplated Use," and any changes to the standard VCA that could impact the technical aspects of the project. Prior to submitting the VCA to the Volunteer for signature, the Project Attorney must submit the draft VCA to the following persons for consistency reviews:

Consistency Review of Draft VCA	
Reviewer	**Issues**
Project Attorney's Supervisor	Legal concerns and consistency
Central Office Legal Coordinator	If there are changes to the model agreement
Project Manager	Verify that the definitions of "Existing Contamination," "Contemplated Use," and the "Site" are adequate. Review for technical adequacy any changes to the standard VCA.
Central Office VCP Coordinator	Review the definitions of "Existing Contamination," "Contemplated Use," and the "Site." Review the VCA if significant changes are made to the boilerplate. Evaluate if status of "Volunteer" is clearly described.
Director, BPM	Only if changes to the cost recovery language are proposed
Attorney General	Only if the Volunteer is seeking a State release

4.9 Signature of Agreement

Once the VCA is in final form, the VCA can be executed as follows:

4.9.1 The Volunteer signs a minimum of three originals of the final VCA and returns them to the Project Attorney.

4.9.2 A single, joint VCA approval recommendation memorandum **(Form No. 6)** is used to transmit the signed VCA for Department execution. The Project Manager uses Form No. 6 to draft the bulk of the memorandum. After completing all sections except "Differences Between Final and Model Agreement" and "Cost Recovery Provisions," the Project Manager sends the draft memorandum by email to the Project Attorney who completes the document. Before signing the memorandum, the Project Attorney forwards the final version to the Project Manager, Regional VCP Coordinator, and Central Office VCP

Coordinator for review. After concurrence by all reviewers, the Project Attorney signs the memorandum for both the Project Manager and Project Attorney.

4.9.3 The Project Attorney assembles and sends a complete package to the Chief, DEE State Superfund and Voluntary Cleanup Bureau through his or her supervisor consisting of:

a. The Joint VCA Approval Recommendation memorandum which summarizes the main features of the site and VCA
b. The original signed VCAs

4.9.4 After review and approval, the Chief, DEE State Superfund and Voluntary Cleanup Bureau forwards the package to the Department's General Counsel for review. The General Counsel forwards the package to the DER. The DER Central Office VCP Coordinator for the corresponding Region will verify that the definitions of the Site and Existing Contamination are appropriate and will sign-off on the joint recommendation memorandum and forward the package to the DER Director, who in turn either signs the VCA or forwards the package to the Deputy Commissioner for signature.

4.9.5 **Important - The Commissioner, or designees, are the only parties who can sign VCAs on behalf of the Department.** Through a "Delegation of Authority" memorandum dated October 22, 2001, authority to sign VCAs was delegated to the Deputy Commissioner for Water Quality and Environmental Remediation and the Director of the Division of Environmental Remediation, severally. Once the VCA is signed, it is returned to the Chief, DEE State Superfund and Voluntary Cleanup Bureau for processing. VCAs are distributed as follows:

a. Two originals are sent to the Project Attorney and the remaining original to the DEE Central Office Records Manager.
b. The Project Attorney mails one original to the Volunteer and sends the other original to the Project Manager for placement in the project file. If a Central Office Project Manager has the lead on the project, a copy of the signed VCA will be sent to the corresponding regional office.
c. One copy is sent to the Director, BPM.
d. The Director, BPM sends one copy of the VCA to the BVCS for the program file and one copy to the PCR Section for the cost recovery file.

SECTION 5 INVESTIGATION WORK PLANS

5.1 Goals and Requirements

The Volunteer commits to completing the specific activities set forth in the Investigation Work Plan. See Chart 3 for a discussion of the differing requirements for PRP and non-PRP Volunteers, particularly the requirements for off-site investigation.

If hazardous waste has been disposed at the site and the site presents a significant threat (§375-1.4), innocent parties may elect to complete an off-site investigation and the remediation of all

significant threats associated with the site contamination. If the Volunteer (or other party, e.g., PRP) does not commit to both on-site and off-site investigation and remediation, the site will be listed as a Class 2 site (or remain listed if already on the Registry) even after on-site remediation is completed.

The goals of voluntary cleanup investigations include but are not limited to the following:

5.1.1 Defining the nature and extent of contamination, both areally and vertically, both on site and, as appropriate, off site;

5.1.2 Identifying contaminant source areas;

5.1.3 Producing data of sufficient quantity and quality to support the development of an acceptable Remedial Action Work Plan. See Charts 4, 5, and 10 for a discussion of the differing requirements for PRP and non-PRP Volunteers.

The Volunteer must develop an Investigation Work Plan that directs a systematic investigation of the site including all appropriate media at and around the site as well as any existing structures. The data requirements are site-specific and will be dependent upon many factors including site history, geology, hydrogeology, topography, existence of structures, contaminant type and volume, methods of waste disposal, and past remedial actions. At some sites, existing contamination presents actual or potential threats to fish and wildlife resources. In these cases, the Investigation Work Plan, or subsequent work, must include an evaluation of these impacts or the potential impacts after completion of the remedy.

Work plans must be submitted for review by the Department and the NYSDOH. No investigative work should commence until Department approvals are obtained.

5.2 Investigation Work Plan Contents

In general, the Investigation Work Plan should include:

1. Introduction and Purpose
2. Site History and Description
3. Objectives, Scope (including Exposure Assessment), and Rationale
4. Field Activities Plan
5. QA/QC Plan
6. Health and Safety Plans
7. Reporting

Appendix D provides additional guidance regarding the contents of the Investigation Work Plan.

5.3 Previous Investigations and Evaluations

5.3.1 Often, the Volunteer has performed site investigations at the site before participating in the VCP. For the Department to accept analytical data generated without Department oversight, the Volunteer must show that the results are valid and useable. This is best shown through the submittal of validation reports or Data Usability Summary Reports (DUSRs). The amount of documentation needed to show that the data is usable under the VCP is

dependent upon many site-related factors and is determined by the Department's Project Manager.

5.3.2 Survey data used to define site boundaries and features or to provide data used for interpreting groundwater conditions must also be shown to be reliable. This may come through the submittal of a certification by a New York State licensed and registered land surveyor, through an agreement to confirm the data under the VCA, or by other methods approved by the Department.

5.3.3 The Project Manager may require that any interpretive reports that are submitted in support of the project and were prepared before the drafting of the VCA be supplied with appropriate certifications. The need for and type of certifications is also case-specific.

5.4 Source Areas

Source areas are portions of a site, typically soil or groundwater, that have the potential to release significant amounts of contaminants to the environment. In most cases under the VCP, source areas are to be treated or removed. In certain instances, source areas are contained rather than removed or treated due to technical or economic factors. Source removal prevents continuing releases of contaminants and reduces the long-term potential for significant exposures to the public and the environment.

To identify source areas, the investigation should focus on both a careful review of the site history including any chemical or industrial processes performed, waste disposal practices, drainage structures, chemical storage units, and on-site investigations. The nature and extent of each source area should be carefully defined so that appropriate remedial technologies can be evaluated.

5.5 Qualitative Exposure Assessments

All Volunteers are required to complete qualitative on-site and off-site public health exposure assessments. The purpose of the human health exposure assessments is to qualitatively determine the route, intensity, frequency, and duration of actual or potential exposures of humans to chemicals. It also describes the nature and size of the population exposed to the contaminants that are present at or migrating from a site. A qualitative exposure assessment consists of characterizing the exposure setting, identifying exposure pathways, and evaluating contaminant fate and transport. Some off-site investigation may be required to support the exposure assessment. This is dependent on the extent of the "Site" as defined in the VCA. Guidance on how to complete qualitative exposure assessments is given in Appendix 3B of the draft DER Technical Guidance Document.

5.6 Quality Assurance/Quality Control

QA/QC requirements are given in Section 2 of the draft DER Technical Guidance Document. The Project Manager is responsible for requesting reviews of QA/QC documents by the Central Office QA/QC Officer, as needed.

5.7 Review and Approval of Investigation and OM&M Work Plans

5.7.1 The procedures for reviewing and approving Investigation Work Plans and OM&M Work Plans are the same and are described below.

5.7.2 Before an Investigation or OM&M Work Plan is approved, the document must be reviewed to determine if it meets all of the requirements of the VCP. If there are deficiencies, the Volunteer must revise the plan to achieve an approvable project. The Project Manager is the person primarily responsible for determining if the plan is acceptable. The role of the technical reviewers is summarized in the following table:

Review of Investigation and OM&M Work Plans	
Reviewer	**Responsibility**
Project Manager	Determination that the Work Plan is complete, meets the requirements of the VCP, will produce information sufficient for making remedial decisions, and has been approved by all other project technical reviewers.
Project Manager's Supervisor	Verification that the plan is complete and consistent with all programmatic requirements.
Central Office VCP Coordinators	Determination (using checklist in Appendix C as guidance) that the requirements of the Work Plan are consistent with similar projects across the State
NYS Department of Health	Determination that the Work Plan will provide the information needed to define any threats to public health
Other Reviewers, as needed	Determination that all other specialty programmatic requirements (e.g., fish and wildlife) are met by the work plan.

5.7.3 The Project Manager is responsible for ensuring that all technical reviewers have received a copy of the work plan and any supporting documents. The Project Manager should establish a reasonable due date for comments from the reviewers and confirm that the reviewers have received the documents and can comply with the due date for comments.

5.7.4 After the Project Manager has reviewed a draft work plan and has prepared comments to be sent to the Volunteer that incorporate any comments from other technical reviewers, the Project Manager and their supervisor will brief the Central Office VCP Coordinator on the contents of the work plan using the consistency review checklist. Any additional comments generated from this briefing will be incorporated into the Project Manager's letter to the Volunteer. This letter should provide a clear and concise description of any deficiencies and the changes that must be made to create an approvable plan along with a due date for resubmittal of the plan.

5.7.5 After the Project Manager has reviewed the revised work plan and received any comments from the other reviewers, the Project Manager will convene a meeting (teleconference) between their supervisor, the Central Office VCP Coordinator, and any other appropriate reviewers to discuss how the Department's comments were addressed and the adequacy of the revised plan. The review process will continue until an approvable plan has been developed.

5.7.6 The approval of an Investigation or OM&M Work Plan begins with the drafting of a technical recommendation memorandum (**Form No. 3**) by the Project Manager. The purpose of the memorandum is to:

a. Summarize the main technical features of the site and the project;
b. Document that the statewide consistency review has been completed as indicated by sign-off by the Central Office VCP Coordinator;
c. Address several site-specific issues identified in the boilerplate memorandum;
d. Document written concurrence by the NYSDOH.

5.7.7 After sign-off of the technical recommendation memorandum by the Project Manager and Central Office VCP Coordinator, Investigation and OM&M Work Plans are approved through letters (**Form No. 5**) to the Volunteer from the Regional VCP Coordinator or designee. The overall sequence for Investigation and OM&M Work Plans is as follows:

a. Work plan development with concurrent consistency reviews;
b. NYSDOH Project Manager sends concurrence letter to NYSDEC Project Manager;
c. Project Manager prepares recommendation memorandum;
d. Central Office VCP Coordinator signs-off on memorandum (the Project Manager is responsible for ensuring that the final version of the work plan and the NYSDOH concurrence letter are sent along with the memorandum);
e. Completion of the citizen participation requirements given in §8.1 (e.g., fact sheet);
f. Regional VCP Coordinator (or designee) sends work plan approval letter (**Form No. 5**) to Volunteer.

5.7.8 If revisions are needed to work plans after initial approval, the changes are approved using the same procedures used for the initial approval.

5.8 Field Oversight

Project Managers must provide, or arrange for, oversight of field investigations to insure that investigations are completed according to the Investigation Work Plan. Although 100% oversight is not required, the Project Manager must provide enough oversight to be able to conclude whether or not the requirements of the VCA and associated work plan(s) have been met. The Project Manager must maintain adequate records to document the oversight that has occurred and that the data generated forms an acceptable basis for developing a remedy for the site, if needed.

SECTION 6 REMEDY SELECTION

6.1 General

6.1.1 The goal of the remedy selection process in the VCP is to remediate the site to a level that is protective of public health and the environment under the conditions of the site's Contemplated Use. As described in §3.3, there are four categories of Contemplated Use; unrestricted, and restricted forms of residential, commercial, and industrial uses. Since the potential for exposure to contaminated media varies under the different site use scenarios, the levels and location of contamination that can remain at a site depends upon several factors. Examples include potential exposure pathways, potential contaminant release mechanisms, the types and reliability of institutional or engineering controls to be used, and other site-specific factors. As described in §5.4, source areas should generally be removed or treated rather than contained.

6.1.2 Once the investigation is complete and if a determination is made by the Department that remediation is necessary, the Volunteer will work with the Department's Project Manager to develop an acceptable Remedial Action Work Plan.

6.1.3 The process for selecting and documenting a remedy at a Voluntary Cleanup site is described below. See Chart 5 for a discussion of the differing requirements for PRP and non-PRP Volunteers. The remediation of Class 2 sites on the Registry of Inactive Hazardous Waste Disposal sites must meet all of the administrative and regulatory requirements for these sites. In most cases, Remedial Action Work Plans will identify cleanup levels to be attained or the process to be used to determine that level. If necessary, call the Central Office VCP Coordinator to help determine the cleanup levels. Since cleanup levels are often driven by health concerns, the Project Manager must verify that the NYSDOH has reviewed and approved the Remedial Action Work Plan. As discussed above, the NYSDOH (and any other appropriate agencies or Department staff) must be included from the outset in discussions regarding the cleanup levels. The Remedial Action Work Plan will describe the basis for concluding that the results of the remediation will be protective of public health and the environment.

6.1.4 All Remedial Design and Remedial Action Work Plan documents must be signed and sealed by a licensed professional engineer registered in New York State except for closures of underground storage tanks completed in accordance with Section 5.5 of the draft DER Technical Guidance Document. As part of the Remedial Action Work Plan/Remedial Design, the Volunteer must submit an engineering report also covered by the certification of a professional engineer registered in New York State that through an engineering analysis, demonstrates that the remedy can achieve the cleanup goals for the site. This demonstration will be based upon an evaluation of the remedy against the factors given in 6 NYCRR 375-1.10(c) (except cost-effectiveness and community acceptance). Section 6.4 describes the engineering evaluation that must be completed.

6.2 Remedial Design vs. Remedial Action Work Plans

As discussed in §6.4, except for Class 2 sites on the Registry of Inactive Hazardous Waste Disposal Sites, it is not necessary to submit a feasibility study for a project in the VCP. Also, remedies completed under the VCP do not generally require the preparation of biddable quality plans and specifications. For simple remedial actions, an approved Remedial Action Work Plan will provide sufficient documentation and control for the project. On a case-by-case basis, the Project Manager may determine that the complexity or sensitivity of the project requires the submittal of a full Remedial Design. Full-scale Remedial Designs may be appropriate when, for example, one or more of the following factors apply:

6.2.1 The proposed remedy includes treatment systems where the performance of the remedy is dependent upon the careful specification of sizes, capacities, process control, etc.;

6.2.2 Implementing the remedy requires specialized engineering or specialized construction (e.g., a barrier wall);

6.2.3 Excavations will occur near sensitive environmental receptors (e.g., wetlands) making it necessary to have plan sheets that provide careful vertical and horizontal control; or

6.2.4 Specialized materials of construction need to be used (e.g., seamed geomembrane).

If a full-scale remedial design is needed, it is recommended that a concept-level document be prepared that summarizes the proposed remedy and provides an engineering evaluation of the remedy (Remedial Action Selection Report) as described in §6.4 below. The contents of this summary document should be the same as for a Remedial Action Work Plan (see §6.3) except that the sections describing the field work, health and safety plans, and QA/QC plans will provide a scope of work rather than a complete description of the activities and requirements. This process allows the Volunteer to obtain Department approval of the approach before investing the resources needed to prepare a full-scale Remedial Design. The concept-level document should be approved using the same procedures as for a Remedial Action Work Plan (§6.5).

For cases where a full-scale design is prepared after Department formal approval of a concept-level design, the procedure for approving the full-scale design is the same as for an investigation work plan.

6.3 Remedial Action Work Plan Contents

In general, the contents of a Remedial Action Work Plan should include:

1. Introduction and Purpose
   a. Site Description
   b. Site History
   c. Previous Investigations
   d. Summary of Environmental Conditions
   e. Summary of Remedy
   f. Contemplated Use
2. Remedial Action Selection Report (engineering evaluation of the remedy)

3. Project Plans and Specifications
4. Institutional Controls
5. Health and Safety Plans
6. QA/QC Plan
7. Schedule
8. Reporting
9. Project Organization

Health and Safety Plans for site remediation must also address community health and safety issues associated with completing the remedy. One aspect of community health and safety is air monitoring. Appendix 1A of the draft DER Technical Guidance Document provides guidance on preparing Community Air Monitoring Plans. Appendix D provides additional guidance regarding the elements of the Remedial Action Work Plan.

6.4 Remedial Action Selection (RAS) Report

Except for Class 2 sites on the Registry of Inactive Hazardous Waste Disposal Sites, it is not necessary to submit a feasibility study to support a proposed remedy in the VCP. In the VCP, the Volunteer must submit a "Remedial Action Selection Report" (RAS) as part of the Remedial Action Work Plan that demonstrates through an engineering analysis that the remedy can achieve the cleanup goals for the site. This demonstration also includes an evaluation of the remedy against the factors given in 6 NYCRR 375-1.10(c) (see §6.4.1 and following). It is not necessary to evaluate cost effectiveness or community acceptance in this report. Cost effectiveness is evaluated by the Volunteer and community acceptance is taken into consideration by the Department. If the Volunteer has information regarding community acceptance for the project, it should be provided in this report. It is not necessary to submit an RAS for the closure of certain underground storage tanks closed in accordance with Section 5.5 of the draft DER Technical Guidance Document.

For some complex sites (e.g., some manufactured gas plants) where the strengths and weaknesses of several alternatives need to be evaluated before selecting a remedy, a "Remedial Alternatives Report" (RAR) may be prepared and submitted in support of a proposed remedy. An RAR is similar to a focused feasibility study and helps both the Volunteer and the Department to identify the best cleanup plan for more complicated sites. The need to complete an RAR is determined on a case-by-case basis by the Department's Project Manager.

The RAS (or RAR when appropriate) must explain **how** the remedy would be protective of public health and the environment. The following sections identify the minimum issues that these engineering evaluations must address.

6.4.1 Protection of Human Health and the Environment

a. Does the proposed remedy achieve each of the remedial action objectives (RAOs)? Describe.
b. Identify any special issues regarding protection of human health and the environment not addressed in §6.4.1.a.

6.4.2 Standards, Criteria, & Guidance (SCG)

a. List all of the major SCGs for the site;
b. Does the proposed remedy comply with all of the SCGs? If not, identify, describe, and discuss.

6.4.3 Short-term Effectiveness & Impacts

a. Identify the risks to the community, workers, and environment that would result from implementing the proposed remedy.
b. How will these risks be controlled?
c. How effective/reliable are the controls?
d. Will the proposed remedy achieve the RAOs in less than two years? If not, how long will it take?

6.4.4 Long-term Effectiveness & Permanence

a. Is the proposed remedy permanent or does it rely upon containment?
b. Will the ability of the remedy to achieve RAOs lessen over time? If there is uncertainty, describe the factors involved.
c. After completion, will there be any significant threats, exposure pathways, or risks to the community or environment from remaining wastes or treated residuals?

6.4.5 Reduction of Toxicity, Mobility, or Volume

a. How much of the contamination will be treated for each media (e.g. soil, groundwater, sediment, etc.);
b. Will the process be complete or partial (quantify)? Is the treatment process reversible?
c. Will the mobility of contaminants be reduced? Describe any uncertainties.

6.4.6 Implementability

a. Are there any potential construction and O&M difficulties?
b. How would these difficulties be overcome?
c. Are services and materials readily available (consider long-term OM&M also)?
d. Any there any problems coordinating with other agencies such as obtaining approvals or permits?

6.5 Review and Approval of Remedial Action Work Plans

6.5.1 As with Investigation Work Plans and reports, before Remedial Action Work Plan is approved, the document must be reviewed to determine if it meets all of the requirements of the VCP. If there are deficiencies, the Volunteer must revise the plan to achieve an approvable project. The Project Manager is the person primarily responsible for determining if the plan is acceptable. The role of the technical reviewers is summarized in the following table:

Review of Remedial Action Work Plans	
Reviewer	**Responsibility**
Project Manager	Determination that the Work Plan is complete, meets the requirements of the VCP, will result in a remedy that is protective under the Contemplated Use, and has been approved by all other project technical reviewers.
Project Manager's Supervisor	Verification that the plan is complete and consistent with all programmatic requirements.
Central Office VCP Coordinators	Determination (using checklist in Appendix C as guidance) that the requirements of the Work Plan are consistent with similar projects across the State
NYS Department of Health	Determination that the remedy will be protective of public health for the Contemplated Use of the site.
Other Reviewers, as needed	Determination that all other specialty programmatic requirements (e.g., fish and wildlife) are met by the work plan.

6.5.2 The Project Manager is responsible for ensuring that all technical reviewers have received a copy of the work plan and any supporting documents. The Project Manager should establish a reasonable due date for comments from the reviewers and confirm that the reviewers have received the documents and can comply with the due date for comments.

6.5.3 After the Project Manager has reviewed a draft work plan and has prepared comments to be sent to the Volunteer that incorporate any comments from other technical reviewers, the Project Manager and their supervisor will brief the Central Office VCP Coordinator on the contents of the work plan using the consistency review checklist. Any additional comments generated from this briefing will be incorporated into the Project Manager's letter to the Volunteer. This letter should provide a clear and concise description of any deficiencies and the changes that must be made to create an approvable plan along with a due date for resubmittal of the plan.

6.5.4 After the Project Manager has reviewed the revised work plan and received any comments from the other reviewers, the Project Manager will convene a meeting (teleconference) between their supervisor, the Central Office VCP Coordinator, and any other appropriate reviewer to discuss how the Department's comments were addressed and the adequacy of the revised plan. The review process will continue until an approvable plan has been developed.

6.5.5 Prior to issuing an approval letter to a Volunteer for a Remedial Action Work Plans, the work plan is internally approved by either the Director, DER (for complicated or controversial projects) or, in most cases, by the corresponding Bureau Director. The Bureau Director determines if approval by the Division Director is needed. Written concurrence by

the Director of the NYSDOH Bureau of Environmental Exposure Investigation (BEEI) must be obtained prior to approval of the Remedial Action Work Plan.

6.5.6 Once the Project Team has determined that the Remedial Action Work Plan is approvable, the Project Manager prepares a technical recommendation memorandum (**Form No. 4**) recommending approval of the Remedial Action Work Plan. The purpose of the memorandum is to:

a. Summarize the main technical features of the site and the project;
b. Document that the statewide consistency review has been completed;
c. Address several site-specific issues identified in the boilerplate memorandum;
d. Document written concurrence by the Director of the NYSDOH BEEI.

6.5.7 The approval sequence for Remedial Action Work Plans is as follows:

a. Work plan development with concurrent consistency reviews (§6.5);
b. Project Manager prepares draft recommendation memorandum (**Form No. 4**);
c. Project Team briefs Remedial Bureau Director on project;
d. Bureau Director determines if work plan approval should go to the Director, DER;
e. Any deficiencies in the Remedial Action Work Plan are resolved;
f. NYSDOH sends concurrence letter from the Director, NYSDOH BEEI to DER Project Manager (concurrence letter is attached to recommendation memo);
g. Regional VCP Coordinator signs-off on work plan and memorandum;
h. Central Office VCP Coordinator signs-off on work plan and memorandum;
i. Approval by the Bureau Director or Director, DER;
j. Completion of the citizen participation requirements given in §8.2 (issuance of fact sheet, ENB notice, comment period, etc.);
k. Regional VCP Coordinator (or designee) sends work plan approval letter (**Form No. 5**) to Volunteer.

6.6 Changes to Approved Remedies

6.6.1 If changes are needed to remedies after approval, the process for approving the changes is determined by whether the changes are considered minor, significant, or fundamental as defined in DER Program Policy DER-2 (TAGM 4059), "Making Changes to Selected Remedies."

6.6.2 Minor changes are recorded in the project file. Significant changes are described in an "Explanation of Significant Differences" (ESD) released to the public. Fundamental changes require a formal amendment to the remedy using the same procedures described in §6.5.

6.7 Construction Oversight

The Department observes construction to ensure that remedies are built and operated according to the Remedial Action Work Plan or remedial design. Although full-time oversight is not required, the Department's Project Manager must provide sufficient oversight to document that the requirements of

the VCA and associated work plan(s) have been met. The Project Manager also provides the recommendation regarding the issuance of the Release to the Volunteer. The Project Manager is responsible for maintaining records that document the construction oversight that has occurred and serve as the basis for a recommendation regarding the issuance of a Release.

6.8 Interim Remedial Measures (IRMs)

In some cases, site conditions make it appropriate to complete Interim Remedial Measures (IRMs). An IRM is a discrete set of activities which can be undertaken without extensive investigation and evaluation, to prevent, mitigate, or remedy site contamination. Its purpose is to address obvious issues quickly, often in conjunction with site investigation. The process for reviewing, approving, and implementing VCP IRMs is as follows:

6.8.1 IRM work plans are to be developed and submitted to the Project Manager in accordance with the procedures and requirements given in the VCA.

6.8.2 If the Project Manager determines that the proposed IRM may constitute all or a significant portion of the final remedy for the site, the review and approval of the IRM work plan will be completed using the same procedures as for a Remedial Action Work Plan, including citizen participation (see §8.3).

6.8.3 If the scope of the IRM is not significant in comparison to the likely remedy for the site, the process for approving, implementing, and documenting an IRM will be the same as for an Investigation Work Plan, including citizen participation (see §8.3).

SECTION 7 PROJECT COMPLETIONS, APPROVALS, AND RELEASE LETTERS

7.1 Investigation Reports

A final report must be submitted at the conclusion of the investigation. The final report should consist of the investigation data, detailed engineering and geological interpretations of the data, and conclusions appropriate to the site. Site data should be compared to Standards, Criteria and Guidelines used by the Department and/or action levels selected specifically for the site during the work plan development process.

7.1.1 When the final investigation report has been received, the Project Manager must determine if the technical requirements of the Investigation Work Plan have been satisfied. Once the Project Manager is satisfied that the requirements have been met, the process for approving a report begins. The type of approval given to the Volunteer and who provides the approval is dependent upon whether remediation is needed or not (see §7.2).

7.1.2 As discussed in §2.7.2, a copy of the investigation approval letter or recommendation to issue a release (**Forms 7 and 9**) should be sent to the Director, BPM as the trigger for billing the Volunteer for Department costs.

7.1.3 Based upon information generated during the completion of the investigation, Registry classification issues should be reevaluated (see §4.5). If there are Registry issues that need to be addressed, this should be documented in a memorandum from the Project Manager to the BHSC (copy Project Team).

7.1.4 If an off-site exposure assessment indicates that there may be exposures of concern, the Project Team should recommend a course of action.

7.2 Investigation Approvals

Depending upon whether remediation is needed or not, two types of approvals occur after the completion of investigation.

7.2.1 For projects where after the investigation, the Department determines that remediation is necessary, the Project Manager drafts an investigation approval letter (**Form No. 7**). The letter should contain a list of preliminary Remedial Action Objectives (RAOs). Using the Consistency Review Checklist (**Appendix C**) as a guide, the Project Manager, Supervisor, and Central Office VCP Coordinator complete the consistency review of the report. The Project Manager must obtain written concurrence on the content of the letter from the NYSDOH Project Manager and Central Office VCP Coordinator before the letter is issued by the Regional VCP Coordinator (or designee).

7.2.2 If an investigation is completed satisfactorily and the Department concludes that no remediation is needed, the Volunteer is eligible for an assignable release and covenant not to sue issued by the Central Office Legal Coordinator. This process is described below under Remediation Approvals (§7.4). Since the assignable release letter also includes the approval of the investigation; no separate approval letter is issued.

7.2.3 If remediation is needed but the Volunteer declines to proceed with the cleanup, the investigation report may be approved but no release is issued.

7.3 Remediation Reports

7.3.1 Within 90 days after completion of remediation, the Volunteer should submit a final engineering report and "as-built" drawings that include all changes made to the final design during construction and an OM&M Plan, if appropriate. Except for certain petroleum tank removals (see §5.5 of the draft DER Technical Guidance Document), the report, drawings, and certification must be prepared, signed, and sealed by a professional engineer. The certification should include the following language: "I certify that the Remedial Action Work Plan (or Remedial Design) was implemented and that all construction activities were completed substantially in accordance with the Department-approved Remedial Action Work Plan (or Remedial Design) and were personally witnessed by me (or "by a person under my direct supervision")."

7.4 Remediation Approvals

7.4.1 If a remedy has been satisfactorily completed, or if after sufficient investigation the Department concludes that remediation is not needed, the Project Manager must verify that the technical requirements of the VCA and work plan(s) have been satisfied. Using the Consistency Review Checklist (**Appendix C**) as a guide, the Project Manager, Supervisor, and Central Office VCP Coordinator complete the consistency review of the remediation report. Once the Project Team is satisfied that the requirements of the remedy (including, when appropriate, remedial action objectives) have been met, a technical recommendation memorandum (**Form No. 9**) is prepared. This memorandum recommending the issuance of an assignable release letter is sent through the Project Manager's supervisor and the appropriate Central Office VCP Coordinator for that Region to the Central Office Legal Coordinator.

7.4.2 The purpose of the memorandum is to:

a. Summarize the main requirements of the VCA;
b. Summarize how these requirements were met;
c. Document that the definition of "existing contamination" has been reviewed and modified, if needed to reflect site conditions found as a result of investigation;
d. Document that the statewide consistency review has been completed;
e. Document that any needed site use restrictions are in place;
f. Document written concurrence by the Health Department(s);
g. If remediation is not needed, document the basis for that conclusion; and
h. Provide a recommendation about whether the release should be issued.

7.4.3 If any of the significant requirements of the VCA have not been met, they should be identified and evaluated as to their importance to the overall project. Any new information or outstanding issues generated during the completion of the work should also be identified and evaluated.

7.4.4 If operation, maintenance, and monitoring (OM&M) of the remedy is needed (e.g., for an SVE system), a release may be issued after construction is completed even though the remedial goals have not yet been fully achieved. As given in the VCA, if the Volunteer fails to implement the OM&M Plan to the Department's satisfaction, the Department can revoke the release. In this case, any Registry deferrals that have been created may need to be lifted (see §4.5.5).

7.4.5 The issuance of an assignable release letter occurs as follows:

a. The final reports are reviewed, including the consistency review. In consultation with the NYSDOH Project Manager and Central Office VCP Coordinator, a decision is made about the adequacy of the work.
b. The Project Manager obtains a concurrence letter from the NYSDOH. Concurrence letters stating that the requirements of the Remedial Action Work Plan have been completed satisfactorily are signed by the NYSDOH Project Manager. For cases where the investigation is completed satisfactorily and the NYSDOH is concurring

that no remediation is needed, the letter is to be signed by the Director, NYSDOH BEEI.

c. When the Project Manager's supervisor has approved the technical recommendation memorandum (**Form No. 9**), the Project Manager notifies the Project Attorney that the draft assignable release letter can be forwarded to the Central Office Legal Coordinator for review. The recommendation memorandum is forwarded to the appropriate Central Office VCP Coordinator for sign-off with a copy of the NYSDOH concurrence letter.

d. The Project Attorney sends the draft assignable release letter to the Central Office Legal Coordinator for review.

e. If the Central Office VCP Coordinator concurs with the technical recommendation memorandum, the memo is signed and forwarded to the Central Office Legal Coordinator.

f. If the Central Office Legal Coordinator concurs, the assignable release letter is signed and sent to the Volunteer. Copies are distributed as follows:
   (i) To the Project Attorney;
   (ii) To the Project Manager;
   (iii) To the DEE Central Office Records Manager;
   (iv) To the Director, BPM who sends one copy to the BVCS for the program file and one copy to the Payment and Cost Recovery Section for the cost recovery file;
   (v) NYSDOH;
   (vi) To the Central Office VCP Coordinator;
   (vii) To the Regional VCP Coordinator if the project was managed by the Central Office.

7.5 Project Terminations

7.5.1 In some cases, the Volunteer may request that the project be terminated. The VCA describes the conditions and requirements for cases where the Volunteer requests termination (see §3.1.12). In other cases, the Department may initiate the termination process because the Volunteer has stopped work or is otherwise not in compliance with the requirements of the VCA. In cases where the Volunteer does not appear to be in compliance with the VCA, the Project Manager shall provide the relevant information to the Project Attorney. If a determination is made to terminate the project, this will happen through a letter from the Project Attorney or Central Office Legal Coordinator. If the project is terminated, the Project Manager should enter the date of the termination letter into the DER tracking system under the corresponding program element with a status code of "TRM."

7.5.2 If a project is terminated, the Project Manager should determine if the Registry status of the site needs to be reevaluated or changed (see §4.5).

SECTION 8 CITIZEN PARTICIPATION

These are the minimum requirements for public notice and comment. More extensive citizen participation activities may be undertaken by the Regions and/or Volunteers particularly for sites which have significant public interest/concerns about the project. All citizen participation activities are carried out by the Department in conjunction with the NYSDOH with input, as appropriate, from the Volunteer.

A generic fact sheet that can be modified for a specific site can be found on the DER internal website (http://internal/home/der/intrader/intrader.htm#vcp).

8.1 Investigations

8.1.1 Except as set forth in §8.1.2, before the start of field work, a fact sheet must be sent to persons on a mailing list consisting of, at a minimum, adjacent property owners, elected officials, any relevant community groups, and local media. The Project Manager is responsible for developing the mailing list with assistance from Citizen Participation Specialists, if available. The fact sheet should describe the site, provide a summary of the purpose and goals of the investigation, scheduling, next steps, and ways to get additional information.

8.1.2 For Class 2 sites on the Registry of Inactive Hazardous Waste Disposal Sites, the Citizen Participation provisions required in 6 NYCRR Part 375 must be followed (consult Part 375 and DER's citizen participation guidance document entitled, "Citizen Participation in New York's Hazardous Waste Site Remediation Program: A Guidebook," dated June 1998 or most recent version).

8.2 Remediation

8.2.1 Once a Remedial Action Work Plan has been approved, the Project Manager must issue a notice of the availability of the work plan for review and comment in the Environmental Notice Bulletin (ENB). The notice will provide for a 30-day comment period, during which time, written comments may be submitted to the Department. The Project Manager will be the contact person listed in the notice.

8.2.2 The ENB is published every Wednesday. **The absolute deadline for submission to the ENB is close of business on any Wednesday for publication in the following Wednesday's edition.** The information required by **Form No. 8** must be sent by email to the ENB (GroupWise Address is "Bulletin, Environmental") by this deadline. Do not send hardcopy or fax. For additional information, see http://internal/website/enb/howto.html

8.2.3 Notice of the Remedial Action Work Plan will be provided by the Project Manager to each municipality within which the site is located, as appropriate:

a. County.....County Executive
b. Town.....Supervisor
c. City (if applicable).....Mayor
d. Village (if applicable).....Mayor

8.2.4 A mailing list and fact sheet, similar to that described in §8.1.1, must be developed and sent out so that it is received on or before the start of the 30-day comment period noticed in the ENB. The fact sheet should specify the start and end dates of the public comment period, where to find and review the project documents, and how to submit comments. A document repository should be established where interested citizens can conveniently review (i.e., near the site, with evening hours, etc.) the project work plans. Documents should be available in the repository on or before the first day of the comment period.

8.2.5 For non-Registry sites, no formal response is made to comments received. If written comments are received, the Project Manager should send a written acknowledgment to the commentor. However, the Department may make revisions to the work plans if any significant new information is received regarding the proposed remediation. If revisions are needed based upon any information received, the Project Manager should keep the Project Attorney informed. The Project Attorney will determine if any changes to the VCA are needed. Before the revised documents are forwarded to the Volunteer, the changes must also be subjected to the consistency review as outlined in §6.5.

8.2.6 For sites listed on the Registry of Inactive Hazardous Waste Disposal Sites as Class 2, the Citizen Participation requirements in 6 NYCRR Part 375 will be followed. In addition to the ENB Notice and fact sheet described above, a Proposed Remedial Action Plan (PRAP) and Record of Decision (ROD) must be issued before remediation begins.

a. The start of the public comment period for the PRAP should coincide with the start of the 30-day comment period noticed in the ENB. A public meeting must be held, usually in the middle of the public comment period.
b. After the close of the comment period, a responsiveness summary is prepared and attached to the ROD. The ROD is finalized and issued following established procedures.

8.3 Interim Remedial Measures

8.3.1 If a decision is made to implement an Interim Remedial Measure (IRM), the extent of citizen participation activities to complete depends upon the scope of the IRM (see also §6.8) as follows:

a. If the scope of the IRM could be all or most of the final remedy for the site, the citizen participation activities should be the same as for a Remedial Action Work Plan (see §8.2).
b. If the scope of the IRM will not cover all or most of the final remedy, the fact sheet for the investigation should also describe the IRM activities. If a decision is made to complete an IRM after the investigation fact sheet has been issued, another fact sheet should be issued using the same procedures as for an investigation work plan (see §8.1).

8.4 Waivers

8.4.1 Where the Volunteer has been approved by DEC to take necessary actions to mitigate an immediate threat to life, health, property or natural resources from a release or threat of release of contaminants, the public participation provisions may be waived.

8.4.2 The citizen participation activities outlined above do not preclude a region from conducting more public outreach appropriate to the circumstances. Regions may want to hold informational sessions in accordance with public interest regarding the site.

Appendix A: Voluntary Cleanup Program Contact Persons (Rev. 3/02)

Central Office Technical Coordinator (DER)	Ed Belmore	518-402-9662
Central Office Legal Coordinator (DEE)	Mike Lesser	518-402-9521
Chief, Brownfields/ Voluntary Cleanup Section (B/VCS)	Christine Costopoulos	518-402-9711
Director, Bureau of Program Management (BPM)	Donna Weigel	518-402-9764
DEE Central Office Records Manager	Elissa Armater	518-402-9509
Central Office Div. of Fish & Wildlife (DFW)	Christina Dowd	518-402-8976
Central Office QA/QC Officer	Tim LeBarron	518-402-9761
Central Office VCP Coordinators		
Regions 1-3	Kevin Carpenter	518-402-9620
Regions 4-6	Michael Komoroske	518-402-9774
Regions 7-9	Andrew English	518-402-9671
Petroleum 1-9	Maris Tirums	518-402-9543
Regional VCP Coordinators		
Region 1	Walter Parish	631-444-0240
Region 2	Dennis Wolterding	718-482-4995
Region 3	Ram Pergadia	845-256-3146
Region 4	Eric Hamilton	518-357-2373
Region 5	Mike McLean	518-897-1242
Region 6	Darrell Sweredoski	315-785-2513
Region 7	Reggie Parker	315-426-7551
Region 8	Todd Caffoe	585-226-2466
Region 9	Peter Buechi	716-851-7220
NYSDOH VCP Coordinators		
Region 1	Richard Fedigan	518-402-7880
Regions 2-3	Geoff Laccetti	518-402-7880
Regions 4 - 7	Mike Rivara	518-402-7890
Regions 8 - 9	Mark VanValkenburg	518-402-7860

Appendix B: VCP Application Form

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

VOLUNTARY CLEANUP PROGRAM APPLICATION (rev. 3/02)

Application Instructions

The New York State Department of Environmental Conservation's Voluntary Cleanup Program (VCP) application has five sections. Section I asks for information about the site's location; Section II asks for information about the site's current owner and operator; Section III asks for information about the Volunteer; Section IV asks for information about the site's environmental history over the past 50 years; and Section V asks for information on the Contemplated Use of the cleaned-up site.

The application form is designed to be self explanatory, with the following exceptions:

- Leave the "NYSDEC Site No." space blank. This is for Department use only.
- The Certification must be signed by the Volunteer rather than a representative (e.g., consultant, attorney).
- TYPE OF CONTAMINANTS: Indicate by checking-off the appropriate box(es) whether the known or suspected site contaminants are associated with petroleum only, hazardous substances (including hazardous wastes), manufactured gas plant (MGP) waste, or "other" (e.g., construction and demolition debris). If more than one type is present, check as many boxes as necessary to indicate the contaminant types involved. Clarifications about what is known regarding contaminant types can be provided in Section IV.
- Section I. Site Location. The Voluntary Cleanup Agreement between the Volunteer and the Department needs to contain a clear and legally defensible definition of the "Site." Please provide as much information as needed (e.g., tax map identifiers, area map, site plan, survey drawings, metes and bounds, etc.) to create an unambiguous description of the site boundaries. Regarding the "Street or Route No.", if a precise street address is unavailable, enter a brief direction narrative (e.g., ½ mi. North of US Rte. 5 & Wolf Road).

Action on the Application

The Department will use the information provided on the VCP application form to determine an applicant's eligibility for participation in the Program. It also serves as an initial summary of site conditions.

Applicants should prepare four copies of the application with all attachments, two with original signatures. Two sets, one with original signatures should be sent to Chief, Brownfields/Voluntary Cleanup Section, New York State Department of Environmental Conservation, Division of Environmental Remediation, 625 Broadway, Albany, NY 12233-7012. The other two sets (one with original signatures) should be sent to the appropriate DEC Regional VCP Coordinator (see the Regional Office Map included with these instructions).

The Department will attempt to notify applicants whether or not they are eligible to participate in the program within 45 days of receipt of a complete application. If an application is deemed incomplete, the applicant will be notified of the deficiency and may submit the additional information.

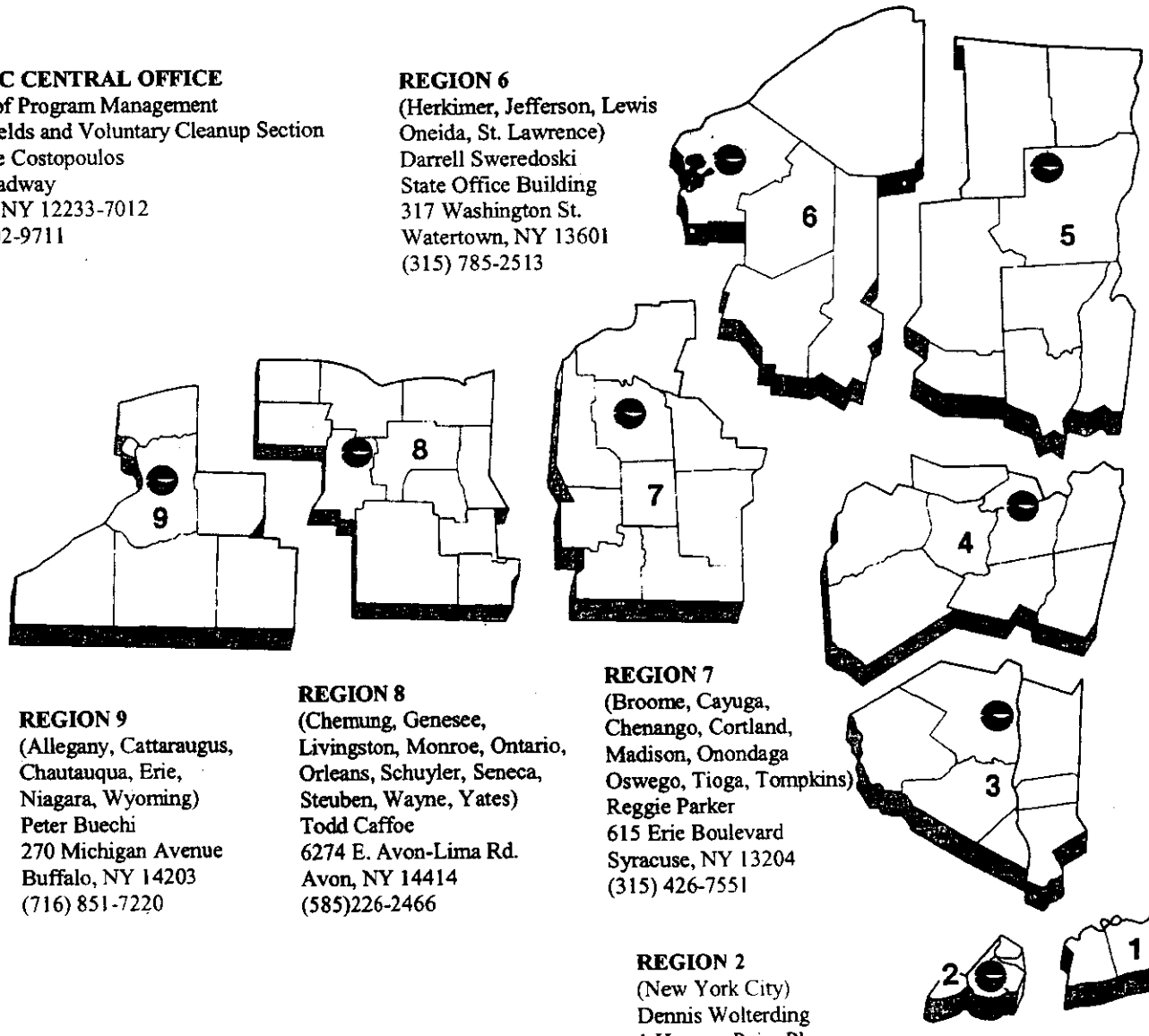
Please note that under certain circumstances, a proposal to remediate a site may require an environmental review under the State Environmental Quality Review Act (SEQRA).

VOLUNTARY CLEANUP PROGRAM
DIRECTORY OF REGIONAL AND CENTRAL OFFICES

March 2002

NYSDEC CENTRAL OFFICE
Bureau of Program Management
Brownfields and Voluntary Cleanup Section
Christine Costopoulos
625 Broadway
Albany, NY 12233-7012
(518) 402-9711

REGION 6
(Herkimer, Jefferson, Lewis
Oneida, St. Lawrence)
Darrell Sweredoski
State Office Building
317 Washington St.
Watertown, NY 13601
(315) 785-2513



REGION 5
(Clinton, Essex, Franklin,
Fulton, Hamilton, Saratoga,
Warren, Washington)
Mike McLean
Route 86
Ray Brook, NY 12977
(518) 897-1242

REGION 4
(Albany, Columbia, Delaware,
Greene, Montgomery, Otsego,
Rensselaer, Schenectady,
Schoharie)
Eric Hamilton
1150 North Westcott Road
Schenectady, NY 12306
(518) 357-2373

REGION 3
(Dutchess, Orange, Putnam,
Rockland,
Sullivan, Ulster, Westchester)
Ram Pergadia
21 South Putt Corners Rd.
New Paltz, NY 12561
(845) 256-3146

REGION 9
(Allegany, Cattaraugus,
Chautauqua, Erie,
Niagara, Wyoming)
Peter Buechi
270 Michigan Avenue
Buffalo, NY 14203
(716) 851-7220

REGION 8
(Chemung, Genesee,
Livingston, Monroe, Ontario,
Orleans, Schuyler, Seneca,
Steuben, Wayne, Yates)
Todd Caffoe
6274 E. Avon-Lima Rd.
Avon, NY 14414
(585)226-2466

REGION 7
(Broome, Cayuga,
Chenango, Cortland,
Madison, Onondaga
Oswego, Tioga, Tompkins)
Reggie Parker
615 Erie Boulevard
Syracuse, NY 13204
(315) 426-7551

REGION 2
(New York City)
Dennis Wolterding
1 Hunters Point Plaza
Long Island City, NY 11101
(718) 482-4995

REGION 1
(Nassau, Suffolk)
Walter Parish
SUNY Campus Building 40
Stony Brook, NY 11790
(631) 444-0240

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

VOLUNTARY CLEANUP PROGRAM APPLICATION

NYSDEC Site No.:_____ (rev. 3/02)

STATEMENT OF CERTIFICATION

I,_____, do hereby certify and attest that the information included in this Voluntary Cleanup Program application, including any attachments, is, to the best of my knowledge and belief, accurate and complete; and that the applicant has the necessary funds to undertake the activities proposed to be implemented under this application, if approved.

_____ _____
Date Volunteer's Signature

TYPE OF CONTAMINANTS: ☐ Petroleum ☐ Hazardous Substances ☐ MGP ☐ Other

I. SITE NAME AND LOCATION

SITE NAME (legal, common, or descriptive): _____
SITE LOCATION: Street or Route No.:_____
CITY/TOWN: _____ COUNTY: _____ ZIP: _____
LATITUDE: _____ LONGITUDE: _____
COUNTY TAX MAP IDENTIFIER NO(S). _____
SITE SIZE: (ACRES)_____
SITE BOUNDARIES: Please attach maps and figures (and survey data if needed) to show the location and boundaries of the site.
Do the site boundaries correspond to Tax Map metes and bounds? Yes ____ No ____

II. CURRENT OWNER/OPERATOR INFORMATION

Current owner's name, address, and phone and fax nos.:

_____
_____
_____
_____

Current operator's name, address, and phone and fax nos.:

_____
_____
_____
_____

III. VOLUNTEER IDENTIFICATION

Volunteer's name, address, and phone and fax nos.:

_____
_____
_____
_____

Volunteer's contact's name, address, and phone and fax nos.:

_____
_____
_____
_____

Describe Volunteer's relationship, if any, to current owner and current operator (subsidiary, shareholder, partner, etc.). If no relationship, put "none":

_____
_____

IV. PROPERTY'S ENVIRONMENTAL HISTORY OVER PAST 50 YEARS

A. To the extent that existing information/studies/reports are readily available to the applicant, attach:
- a description of the environmental history of the site that includes previous uses of the property, types of operation, chemicals used on the property, by-products or wastes produced by previous activities on-site, and a list of any orders, decrees, or other legal documents regarding violations of the Environmental Conservation Law or equivalent federal environmental statutes;
- a list of previous owners with names, last known addresses and telephone numbers (describe Volunteer's relationship, if any, to each previous owner listed. If no relationship, put "none"); and

- a list of previous operators with names, last known addresses and telephone numbers (describe Volunteer's relationship, if any, to each previous operator listed. If no relationship, put "none").

B. Is/was the site listed in New York State's Registry of Inactive Hazardous Waste Sites? YES ____ NO ____

If yes, the Registry Site Code is/was ___ - ____ - _____.

C. Is the site listed as Class 1 or 2 in New York State's Registry of Inactive Hazardous Waste Sites? YES ____ NO ____

D. Did the Volunteer generate, transport or dispose of, arrange for or cause the generation, transportation or disposal of hazardous substance on the property? YES ____ NO ____

E. Is the site a treatment, storage, or disposal facility (TSDF) subject to corrective action or closure under permit or order issued under the Department's hazardous waste management regulatory ("RCRA") program? YES ____ NO ____

F. Is the site a TSDF operating under interim status under the RCRA program that is subject to enforcement action leading to the issuance of an order containing a corrective action schedule? YES ____ NO ____

G. Have there been any spills or other releases of petroleum at the site that have been reported to the Department? YES ____ NO ____

V. INTENDED SITE USE

Briefly describe below the Contemplated Use of the site following cleanup.

_____

_____

_____

_____

Appendix C: VCP Document Consistency Review Checklist

Site Name: _____
Site No.: _____
Project Mgr.: _____
Work Plan Date: _____

Date of Review: _____
Reviewer: _____
Volunteer: _____
VCA Date: _____

ok?	*Item*	*Notes*
	Technical Components of Voluntary Cleanup Agreement	
☐	▸ Is a signed application on file?	
☐	▸ Is the definition of Contemplated Use consistent with §3.3?	
☐	▸ Is the definition of existing contamination consistent with §3.4?	
☐	▸ Is the definition of the site clear?	
☐	▸ Is the description of the volunteer status clear?	
☐	▸ Has a listing package/deferral been prepared?	
	Investigation Work Plan	
☐	▸ prior site uses described?	
☐	▸ surrounding land uses described?	
☐	▸ adequate to evaluate media, volumes, extent?	
☐	▸ adequate methods of investigation?	
☐	▸ adequate QA/QC?	
☐	▸ source areas defined?	
☐	▸ adequate on & off-site exposure assessment?	
☐	▸ must off-site issues be addressed? adequate?	
☐	▸ need risk assessment?	
☐	▸ adequate documentation/reporting?	
☐	▸ fish & wildlife impact analysis?	
☐	▸ health and safety plan adequate?	

ok?	*Item*	*Notes*
☐	▸ CP requirements completed (mailing list, document repository, fact sheet)?	
☐	▸ DOH Project Manager written concurrence?	
☐	▸	
	Investigation Final Report	
☐	▸ Did the investigation substantially comply with the work plan?	
☐	▸ Are any deviations from the work plan sufficiently described?	
☐	▸ Did the investigation adequately define the nature and extent of the contamination and identify source areas?	
☐	▸ Does the report include an on-and off-site exposure assessment?	
☐	▸ Was a DUSR included with the report?	
☐	▸ Has the report been approved by NYSDOH, DFW&MR and other appropriate reviewers?	
☐	▸ Registry status reviewed?	
☐	▸	
	Remedial Action Work Plans	
☐	▸ adequate remedial goals?	
☐	▸ remedy assessed by PE against factors in §375-1.10(c)?	
☐	▸ remedy will mitigate threats on & off-site?	
☐	▸ obvious contamination addressed?	
☐	▸ source control if necessary?	
☐	▸ is the remedy adequately documented (engineering report, PRAP/ROD)?	
☐	▸ adequate O&M?	
☐	▸ adequate site use restrictions?	
☐	▸ adequate post-RA verification and QA/QC?	
☐	▸ adequate worker and community HASPs?	

ok?	Item	Notes
☐	▸ CP requirements completed (fact sheet, ENB notice, 30-day comment period)?	
☐	▸ does SEQR apply? addressed?	
☐	▸ Concurrence letter from Director DOH BEEI?	
☐	▸	
Remedial Action Final Report		
☐	▸ Did the remediation substantially comply with the work plan?	
☐	▸ Are any deviations from the work plan sufficiently described?	
☐	▸ Were the remedial goals clearly met?	
☐	▸ Was a DUSR included with the report?	
☐	▸ Was the report certified by a NYS P.E.? Correct language?	
☐	▸ Have we received proof of institutional controls?	
☐	▸ Does the report contain adequate as-builts?	
☐	▸ Does the report contain an adequate OM&M Plan (if applicable)?	
☐	▸ Has the report been approved by NYSDOH, DFW&MR and other appropriate reviewers?	
☐	▸ Registry status reviewed?	
☐	▸ should the definition of existing contamination be revised?	

Appendix D: Guidance on Consistency Review Checklist

The following chart provides additional guidance on completing the Consistency Review Checklist (Appendix C). When completing Appendix C, the reviewer should document in the "Notes" column generally how each requirement below is met.

ok?	*Item*	*Notes*
Technical Components of Voluntary Cleanup Agreement		
☐	▸ Is a signed application on file?	A complete and signed application must be on file before approving the VCA.
☐	▸ Is the definition of Contemplated Use consistent with §3.3?	Understanding the Contemplated Use is necessary to determine if the investigation/remedy is adequate. Depending upon the contaminants involved and site conditions, it may be necessary to be more specific than generic descriptions (e.g., "industrial/commercial") to evaluate potential exposures or releases to the environment.
☐	▸ Is the definition of existing contamination consistent with §3.4?	Within the limits of available information, the definition should be broad enough to cover everything to be investigated and remediated but not so broad as to be unsupported.
☐	▸ Is the definition of the site clear?	The Volunteer should provide a clear definition of the site boundaries. This is needed both for establishing the scope of the investigation and remediation phases and for defining the extent of contamination. If a Volunteer wishes to obtain a Release for the entire property, the investigation and remediation must address the entire property.
☐	▸ Is the description of the volunteer status clear?	Is the Volunteer a PRP, innocent owner, or innocent non-owner? The status influences the Volunteer's eligibility and their obligations to perform off-site investigations and remediation.
☐	▸ Has a listing package/deferral been prepared?	If enough information exists at this stage to determine that a listing package should be drafted, the procedures in §4.5 should be followed.
Investigation Work Plans		
☐	▸ Have the prior uses/contamination been described?	The Volunteer should identify the prior uses of the site and any specific processes or chemicals that were used. This greatly assists in developing and confirming the scope of work.
☐	▸ Have the surrounding land uses been described?	This information is needed to support the exposure assessments and the site investigation. It can also influence the types of site use restrictions or controls that may be needed.

ok?	*Item*	*Notes*
☐	▸ Is the scope adequate to define the nature and extent of contamination?	All investigations must contain reliable information that adequately defines the nature and extent of site contamination and, if applicable, threats to fish and wildlife resources.
☐	▸ Are adequate methods of investigation proposed?	The methods used to acquire and handle environmental samples and data must be specified (in SOPs).
☐	▸ Is there adequate QA/QC?	At a minimum, each work plan must address the QA/QC requirements given in Section 2 of the draft DER Technical Guide so that the environmental data acquired during the project will be reproducible, accurate, representative, comparable, and complete.
☐	▸ Have the source areas been defined?	The scope of the investigation must be sufficient to determine if the site contains "source areas" (see §6.4), and if so, to define their extent.
☐	▸ Have on & off-site exposure assessments been performed?	All Volunteers must complete on-site and off-site exposure assessments. The work plan should give enough detail to document that the assessment will adequately characterize all actual/potential public health and environmental exposures due to site contamination.
☐	▸ Have off-site issues been adequately addressed? If not, provide explanation.	Depending upon the Volunteer's status, off-site issues range from completing qualitative exposure assessments to full investigation and remediation. The off-site scope of work must be appropriate for the type of Volunteer and site conditions.
☐	▸ need risk assessment?	If the use of existing cleanup guidance combined with the results of the exposure assessments will not be sufficient to define site-specific remedial goals, a quantitative risk assessment may be needed. The project manager should consult with the appropriate VCP Coordinator and the NYSDOH before a decision is made to complete a risk assessment.
☐	▸ adequate documentation and reporting?	The work plan should specify the information that will be included in the final report to ensure that the information supplied will be sufficient for making remedial decisions.
☐	▸ fish & wildlife impact analysis?	A decision must be made by DFW if a site-specific fish and wildlife impact analysis is needed and if so, if the scope given in the work plan is adequate.
☐	▸ adequate worker HASP?	The Volunteer's consultant is responsible for preparing a worker HASP that meets all regulatory requirements. The Project Manager completes an informal review to determine if the HASP addresses known site issues.

ok?	Item	Notes
☐	▸ CP requirements completed (mailing list, document repository, fact sheet)?	A fact sheet should be sent to those on the mailing list so that notice of the field work is received at least one week prior to the start of work.
☐	▸ DOH Project Manager written concurrence?	A written concurrence letter (on DOH letterhead) is needed from the DOH Project Manager.
	Investigation Final Report	
☐	▸ Did the investigation substantially comply with the work plan?	This is an overall evaluation of the adequacy of the investigation. If unexpected conditions makes it necessary to do additional work, another work plan should be developed.
☐	▸ Are any deviations from the work plan sufficiently described?	The significance of any omissions or problems should be evaluated to determine if more work is needed.
☐	▸ Did the investigation adequately define the nature and extent of the contamination and identify source areas?	The final report should clearly define the contaminants of concern, impacted media, volumes and limits of contamination, concentration ranges, and additional information as needed to define the nature and extent of contamination.
☐	▸ Does the report include an on-and off-site exposure assessment?	The results of the exposure assessments should be presented with clear conclusions about actual or potentially complete exposure pathways.
☐	▸ Was a DUSR included with the report?	The DUSR must be complete and indicate if the data is useable. Problems with the data must be identified and resolved.
	▸ Has the report been approved by NYSDOH, DFW&MR and other appropriate reviewers?	All reviewers should have had an adequate opportunity to review and comment upon the report. The Project Manager should obtain written approvals from reviewers.
	▸ Registry status reviewed?	The Project Manager must decide if the results of the investigation indicate the need to prepare a deferred listing package or lift an existing deferral.
	Remedial Action Work Plan	
☐	▸ Are there adequate remedial goals?	Unambiguous remedial goals for each media must be specified in the work plan which clearly indicate the cleanup standard to be achieved before a final release could be issued to the Volunteer. The basis and/or source of the cleanup standards must be specified.

ok?	Item	Notes
☐	▸ Has the remedy been assessed by a PE against the factors listed in §375-1.10(c)?	Although a feasibility study is not required for most VCP sites, the Volunteer must support the proposed remedy by showing how the remedy would achieve the objectives as compared against the evaluation factors in 6 NYCRR Part 375. This should be documented in a report (see §7) that is prepared and sealed by a professional engineer. Class 2 sites must go through the typical PRAP/ROD process.
☐	▸ Will the remedy mitigate threats on & off-site?	The Remedial Action Work Plan should identify the threats posed to public health and the environment and explain how the remedy would mitigate those threats.
☐	▸ Has the obvious contamination been addressed?	Every remedy should halt or prevent significant health and environmental exposures resulting from the release of contaminants.
☐	▸ Is source control necessary?	If source areas exist at the site, in most cases they should be removed or treated rather than contained.
☐	▸ is the remedy adequately documented (engineering report, PRAP/ROD)?	Class 2 sites must go through the normal PRAP/ROD process. Other sites must have an adequate work plan and engineering report.
☐	▸ Is there adequate OM&M?	If the protectiveness of the remedy relies upon continuing OM&M, there must be a plan that specifies the actions, inspections, and reporting that will occur to ensure that the remedy continues to remain protective.
☐	▸ Are there adequate site use restrictions?	If the protectiveness of the remedy depends upon site use restrictions such as groundwater or property use restrictions, they must be clearly identified and placed in an enforceable instrument.
☐	▸ Has adequate post-remediation verification sampling been performed with the appropriate QA/QC?	With some exceptions, post-remediation verification samples are required to demonstrate that the remedial action objectives have been met. Data used to show compliance with the RAOs must be part of a DUSR.
☐	▸ adequate worker and community HASPs?	If the remedy could create exposures to the community, a CHASP must be in place. Documentation air monitoring may be necessary. HASPs must be prepared by a competent person.
☐	▸ CP requirements completed (fact sheet, ENB notice, 30-day comment period)?	The approval letter for the RAWP should not be issued until the citizen participation requirements have been completed. Public meetings are not necessary but may be helpful in some cases.

ok?	*Item*	*Notes*
☐	▸ does SEQR apply? addressed?	SEQR issues must be resolved before the RAWP is approved.
☐	▸ Concurrence letter from Director DOH BEEI?	The DOH concurrence letter from the Director of the BEEI must be in place prior to approval of the RAWP.
	Remedial Action Final Report	
☐	▸ Did the remediation substantially comply with the work plan?	This is an overall evaluation of the completeness of the remedy in comparison to the requirements of the RAWP.
☐	▸ Are any deviations from the work plan sufficiently described?	Any changes from the RAWP must be evaluated by the Project Manager to determine if additional work is necessary.
☐	▸ Were the remedial goals clearly met?	The Report must provide enough information for the Project Manager to determine if the goals have been obtained.
☐	▸ Was a DUSR included with the report?	The DUSR must be complete and indicate if the data is useable. Problems with the data must be identified and resolved.
☐	▸ Was the report certified by a NYS P.E.? Correct language?	The report must be certified by an individual/firm (in compliance with the State Education Law). The certification should include the exact language from §7.3.
☐	▸ Have we received proof of institutional controls?	Evidence that institutional controls are in place must be submitted within 30 days of DEC's approval of the instrument.
☐	▸ Does the report contain adequate as-builts?	The Report should contain as-builts as necessary to document the extent and location of the remedial activities.
☐	▸ Does the report contain an adequate OM&M Plan (if applicable)?	For remedies that include ongoing OM&M, the report should contain a complete and approvable OM&M Plan.
☐	▸ Has the report been approved by NYSDOH, DFW&MR and other appropriate reviewers?	Written concurrence is needed from each reviewer. The NYSDOH signoff comes from the NYSDOH Project Manager.
☐	▸ Registry status reviewed?	The Project Manager must decide if the results of the remediation indicate the need to prepare a deferred listing package or lift an existing deferral.
☐	▸ should the definition of existing contamination be revised?	If the results of the investigation or remediation of the site indicate the need to amend the definition of existing contamination, this should be arranged with the Project Attorney prior to drafting the release letter.

Appendix E: VCP Start and End Definitions for Internal Tracking

Planned and actual dates must be tracked for all program elements. Planned dates should be entered into the tracking system as soon as the application is approved.

Program Element	Start Date[1]	End Date[2]	Input Source
VCP Application	Date the VCP application is stamped as received by NYSDEC (Region or Central Office).	Date of letter deeming the VCP application eligible/ineligible to participate in the VCP.	BVCS
VCP Agreement	Date of letter deeming the VCP application eligible to participate in the VCP.	Date NYSDEC's authorized representative signs agreement as seen on the execution page of the agreement.	BVCS
Site Characterization[3]	Date Site Characterization work plan is approved	Date of DEC's letter to the consultant/volunteer approving the site characterization report	Project Manager
Remedial Investigation (RI)	Date Remedial Investigation work plan is approved.	Date of letter approving investigation report [4]	Project Manager
Remedial Design[1] (RD)	Date of letter approving investigation report[4]	Date of letter approving Remedial Action work plan	Project Manager
Remedial Action[5]	Date field work begins[6]	Date of Technical Satisfactory Completion Memo[7]	Project Manager
Operation, Maintenance & Monitoring (OM&M)	Date of Technical Satisfactory Completion Memo[7]	Date of letter terminating OM&M[8]	Project Manager

1 If a project starts at remedial design, Remedial Design start would be the date the volunteer signs the VCA. IRM Remedial Design start and end dates are the same as for Remedial Design.

2 If a volunteer or DEC elects to terminate the VCA, the end date for the current program element would be the date of the letter terminating the agreement. The date status would be "TRM."

3 The site characterization program element should be used by the Project Manager where a true site characterization occurs under a separate site characterization work plan. For most VCP projects, a separate site characterization is either not done or it is combined with the RI and tracked as part of the RI and not as a separate program element.

4 If no further action is selected, the RI end date would be the date the Technical Satisfactory Completion Memo from the Project Manger to DEE stating that the remedy is satisfactorily completed is signed off by the Central Office VCP Coordinator.

5 Interim Remedial Action start and end dates are the same as Remedial Action

6 Date of "mobilization" as determined by the Project Manager.

7 Date the Technical Satisfactory Completion memo from the Project Manger to DEE stating that the remedy is satisfactorily completed is signed off by the Central Office VCP Coordinator.

[8] If the site is also on the New York State Registry, the end date would be either the date of the letter approving termination of OM&M or the date the site is delisted, whichever is later.

Appendix F: List of Abbreviations and Acronyms

B/VCS	Brownfields/Voluntary Cleanup Section
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
The Department	New York State Department of Environmental Conservation
DEE	Division of Environmental Enforcement
DER	Division of Environmental Remediation
DUSR	Data Usability and Summary Report
ECL	Environmental Conservation Law
EIS	Environmental Impact Statement
ENB	Environmental Notice Bulletin
FS	Feasibility Study
HASP	Health and Safety Plan
IRM	Interim Remedial Measure
MGP	Manufactured Gas Plant
NL	Navigation Law
NPL	National Priorities List
NRD	Natural Resources Damage
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	Operation, Monitoring, and Maintenance
P	Potential
PAHs	Polycyclic aromatic hydrocarbons
PRAP	Proposed Remedial Action Plan
PCRS	Payments and Cost Recovery Section
PRP	Potentially Responsible Party
QAO	Quality Assurance Officer
QA/QC	Quality Assurance/Quality Control
RA	Remedial Action
RAO	Remedial Action Objectives
RAR	Remedial Alternatives Report
RAS	Remedial Action Selection
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
The Release	Assignable Release
ROD	Record of Decision
SCGs	Standards, Criteria, & Guidance
SEQR	State Environmental Quality Review
SEQRA	State Environmental Quality Review Act
SPDES	State Pollution Discharge Elimination System
SOP	Standard Operating Procedure
SVOCs	Semi-volatile Organic Compounds
TCE	Trichloroethene
TSDF	Treatment, storage, and disposal facility
USEPA	United States Environmental Protection Agency
VCA	Voluntary Cleanup Agreement/Order
VCP	Voluntary Cleanup Program
VOCs	Volatile Organic Compounds

Chart No. 1: Definitions

Voluntary Cleanup Program -- Definitions	
HAZARDOUS SUBSTANCE SITE	A site that contains any kind of hazardous waste, hazardous substance (including manufactured gas plant constituents), solid waste, **or a <u>mixture</u>** of petroleum with either hazardous waste, hazardous substances, or solid waste.
PETROLEUM SITE	A site that contains **<u>only</u>** petroleum contamination.
PRP	Potentially Responsible Party - a party, other than an innocent owner, responsible under law to remediate contamination disposed on, or released from, a property, including a discharger of petroleum.
INNOCENT OWNER	An owner who meets <u>all</u> of the following criteria: 1. Acquired title to the property in an already contaminated condition after the cessation of the disposal or discharge of the contamination. 2. Did not participate in the operation of the facility from which contamination was released. 3. Has not by its own actions caused a release of contaminants into the environment at the site. 4. Is not responsible under law to remediate contamination disposed on or released from a property other than as a result of ownership subsequent to the cessation of the disposal or discharge of the contamination.
INNOCENT NON-OWNER	Someone who is not a PRP under the law and has not acquired title to the property prior to entering into the VCP.

Chart No. 2: Eligibility

Voluntary Cleanup Program-Eligibility Requirements	
ELIGIBLE SITES	All sites <u>except</u>: 1. Sites listed on the Registry as Class 1 2. Sites on the USEPA's NPL, other than Onondaga Lake NPL Subsites 3. Sites regulated pursuant to ECL Article 27, Title 9 and 6 NYCRR Part 370. 4. Sites subject to Department or USEPA enforcement action may not be eligible.
ELIGIBLE VOLUNTEER	Any party is eligible to become a Volunteer **except**: 1. A discharger, as defined by law, at a petroleum site other than one who has purchased the site subsequent to the cessation of petroleum discharge. 2. A PRP, other than an "innocent owner," at a Class 2 site listed on the New York State Registry of Inactive Hazardous Waste Disposal Sites. 3. A PRP subject to any other "enforcement action" requiring the PRP to remove or remediate at the site a hazardous substance as defined in 6 NYCRR Part 597. For this purpose, an "enforcement action" commences against a PRP: a. Under State law: upon commencement of enforcement under Article 71 of the Environmental Conservation Law; upon issuance of any notification under Article 27, Title 13 of the Environmental Conservation Law (other than ECL 27-1305) that the PRP is a PRP for the property in question; or upon issuance of an accusatory instrument under the Criminal Procedure Law. b. Under federal law: upon commencement of an administrative proceeding seeking to require a party to conduct the removal or remediation of hazardous substances.

Chart No. 3: Permit Requirements

Voluntary Cleanup Program Permit Requirements — All Sites	
All Volunteers	1. At its discretion, the Department may exempt Volunteers from having to obtain permits issued by the Department. 2. All Volunteers must comply with all substantive requirements of the Department's permit programs even though they need not comply with the procedural requirements. 3. The Volunteer must obtain all permits not issued by this Department, e.g., federal permits and permits issued by other NYS Agencies.

Chart No. 4: Investigation Requirements

Voluntary Cleanup Program–Investigation Requirements*		
	Hazardous Substances	***Petroleum***
PRP	On-site & Off-site Investigation	Not eligible to participate in the program.
INNOCENT-OWNER	On-site Investigation	On-site & Off-site Investigation
INNOCENT NON-OWNER		

Note: If hazardous waste has been disposed at the site and the site presents a significant threat (§375-1.4), innocent parties may elect to complete an off-site investigation and the remediation of all significant threats associated with the site contamination. If the Volunteer (or other party, e.g., PRP) does not commit to both on-site and off-site investigation and remediation, the site will be listed as a Class 2 site (or remain listed if already on the Registry) even after on-site remediation is completed.

* All investigations include on-site and off-site exposure assessments (see §5.5). Some off-site investigation may be needed to support the exposure assessment.

Chart No. 5: Remediation Requirements

Voluntary Cleanup Program–Remediation Requirements		
	Hazardous Substances	***Petroleum***
PRP (except for a Class 2 site)	1. Clean up the site to a level considered protective based on the Contemplated Use 2. Eliminate off-site impacts from on-site sources 3. Remediate all significant off-site threats to human health and the environment attributable to site contamination.	Not eligible to participate in the program.
INNOCENT-OWNER	1. Clean up the site to a level considered protective based on the Contemplated Use 2. Eliminate off-site impacts from on-site sources	1. Clean up the site to a level considered protective based on the Contemplated Use 2. Eliminate off-site impacts from on-site sources 3. Remediate all significant off-site threats to human health and the environment attributable to site contamination.
INNOCENT NON-OWNER		Same as **Petroleum Innocent-Owner** above, unless benefit to Oil Spill Fund is demonstrated*.

Note: All obvious contamination must be removed and all source areas must be remediated.

* Consult with the Project Attorney to determine how a benefit to the Oil Spill Fund is demonstrated.

Chart No. 6: Release and Covenant not to Sue

Voluntary Cleanup Program -- Release and Covenant not to Sue	
Hazardous Substances	
Non-PRP (Innocent Owner and Innocent Non-Owner)	The Volunteer and its non-PRP successors and assigns (including in title) receive a DEC release from: 1. Liability to further investigate or remediate "covered contamination" subject to the following reservations: A. off-site migration of petroleum (and, if the Volunteer is a PRP, migration off-Site of contaminants resulting in impacts that are not inconsequential to environmental resources, to human health, or to other biota); B. environmental conditions or information related to the Site which were unknown at the time the Release and Covenant not to Sue is issued and which indicate that the Contemplated Use cannot be implemented with sufficient protection of human health and the environment; C. Volunteer's failure to implement the VCA to the Department's satisfaction (e.g., not completing OM&M, not paying State costs, not maintaining use restrictions, etc.); D. fraud committed by Volunteer in entering into or implementing the VCA; E. a release or threat of release at the Site of any hazardous substance (as that term is defined at 42 USC 9601[14]) or petroleum (as that term is defined in Navigation Law § 172[15]), other than Covered Contamination; or F. causing or allowing the use of the Site to change from the Contemplated Use to one requiring a lower level of residual contamination before that use can be implemented with sufficient protection of human health and the environment. 2. Natural Resource damages **Note:** revoking the release under 1.E affects the Volunteer, successor or assign who owns the site and those following in the chain of title.
PRP	Same as above except the reservation under 1.A above is for any contamination migrating off-site whereby the PRP would not receive the Natural Resource Damages Release.
Petroleum	
Non-PRP (Innocent Owner and Innocent Non-Owner)	Same as Hazardous Substances Non-PRP, except that NRD release extends only to a petroleum release that impacts navigable waters
PRP	Not Eligible to Participate in Program

Chart No. 7: SEQR

Does SEQR Apply to the Remedial Action?[1]		
	PROJECT WHICH IS OTHERWISE SUBJECT TO SEQR	PROJECT WHICH IS **NOT** OTHERWISE SUBJECT TO SEQR
PRP[2]	YES[3]	NO
INNOCENT OWNER	YES[3]	NO
INNOCENT NON-OWNER	YES[3]	YES

Note (1): VCP Investigations are exempt from SEQR.

Note (2): Dischargers at sites contaminated with petroleum are not eligible for the VCP.

Note (3): SEQR compliance is required as part of the overall project analysis.

Chart No. 8: Citizen Participation

Voluntary Cleanup Program-Citizen Participation All Contaminants	
Investigation	1. Preparation and mailing of a fact sheet to adjacent property owners, elected officials, community groups and local media
Remediation Non-Class 2 site	1. Preparation and mailing of a fact sheet to adjacent property owners, elected officials, community groups and local media 2. ENB notice and 30 day comment period 3. Significant comments may result in a revision to the Work Plan 4. An ENB Notice is required for an IRM Work Plan if the IRM could become the final remedy.
Remediation Class 2 site	In addition to the same activities as Remediation at Non-Class 2 site: 1. A PRAP must be prepared and released for public comment. 2. A 30 day public comment period on the PRAP during which a public meeting is held. 3. A summary of all comments received and their responses provided to interested parties and included in ROD.

All citizen participation activities are to be carried out by Department staff, not the Volunteer. However, the Volunteer can assist, as appropriate.

Chart No. 9: Cost Recovery

Voluntary Cleanup Program-Recovery of State Costs	
	Hazardous Substances or Petroleum
INNOCENT OWNER and INNOCENT NON-OWNER	1. Reimburse the State for all costs in negotiating the VCA; and 2. Reimburse the State for all oversight costs*
PRP	1. Same as above; and 2. All costs associated with the site prior to VCA

* The Department may seek reimbursement for pre-negotiation costs from the PRP in any sale or lease transaction between the non-PRP Volunteer and the PRP.

Chart No. 10: Investigation & Remediation Summary

	INVESTIGATION		REMEDIATION	
VOLUNTEER	**ON SITE**	**OFF SITE****	**ON SITE***	**OFF SITE**
1. PRP-Class 2-HazSubs	Not-Eligible	Not-Eligible	Not-Eligible	Not-Eligible
2. PRP-Class 2a/3/4/5-HazSubs	YES	YES	YES	YES - all offsite significant threats
3. PRP-Non-Registry-HazSubs	YES	YES	YES	YES - all offsite significant threats
4. Innocent Owner-Class 2a/2/3/4/5-HazSubs	YES	NO -unless want site delisted	YES	NO - unless want delisted, then all offsite significant threats
5. Innocent Owner-Non-Registry-HazSubs	YES	NO	YES	NO
6. Innocent Non-Owner- Class 2a/2/3/4/5-HazSubs	YES	NO - unless want site delisted	YES	NO - unless want delisted, then all offsite significant threats
7. Innocent Non-Owner- Non-Registry- HazSubs	YES	NO	YES	NO
8. PRP-Petroleum	Not-Eligible	Not-Eligible	Not-Eligible	Not-Eligible
9. Innocent Owner-Petroleum	YES	YES	YES	YES - to State standards
10. Innocent Non-Owner-Petroleum	YES	YES	YES	YES - to State standards, unless benefit to Oil Spill Fund is demonstrated

*All on-site remediations are to the contemplated use of the property and require all obvious contamination to be removed and source areas to be remediated.

**All Volunteers must do an on-site and off-site exposure assessment. Some off-site investigation may be needed to support the exposure assessment.

HazSubs=Hazardous Substances

The following forms can be downloaded for use from the DER internal Website, http://internal/home/der/intrader/intrader.htm#vcp. They are provided in WordPerfect format WP versions 6/7/8). To complete the forms for use, paste the text of the form into a document containing the appropriate letterhead, replace the italicized notes with the requested project information, and package the document using standard office procedures.

Form No. 1: Memorandum Requesting Eligibility Information
{instructions for completing this form appear on the first page of this Section}

MEMORANDUM

TO: *(Appropriate Program Divisions' Regional Engineer)*

FROM: *(VCP Project Manager)*

SUBJECT: *(VCP Site Name), (VCP Site No.)*

DATE:

The Division of Environmental Remediation has received a voluntary cleanup application from *(Volunteer's name)* for the investigation/remediation of the following site:

Site Name:
Site Address:
County:
City/Town/Village:

The application requests approval to participate in the Department's Voluntary Cleanup Program for the Investigation/Remediation of the *(name of site/property)*. Please review your Division's records in relation to this site and Volunteer and inform me by *(date - about one week)* if you have any ongoing or pending enforcement actions with either this Volunteer or regarding the subject site. Time needed to complete this review may be charged to T&A Code _____.

If you have any questions, please call me at *(phone number)*.

cc: *Regional VCP Coordinator*
Project Attorney
NYSDOH VCP Coordinator

Form No. 2: Example Application Approval Letter
{instructions for completing this form appear on the first page of this Section}

DATE

Volunteer's Contact
Volunteer's Contact's Address

Re: Voluntary Cleanup Program Application
Site Name
Site #

Dear *Contact*:

The Commissioner of the New York State Department of Environmental Conservation is pleased to offer you this opportunity to participate in the voluntary program developed to facilitate the remediation of contaminated sites throughout the State of New York. The Department has determined that the above application dated *{date}* is complete and that based on the representations contained therein and in the documents which accompanied the application the Volunteer is eligible to participate in the Voluntary Cleanup Program as a *{PRP-Volunteer/non-PRP Volunteer}* provided it executes and returns to the Department within 15 days of receipt the enclosed Agreement, which provides for the submission, review, approval and implementation of work plans under the Voluntary Cleanup Program.

Please note that the Department will not review any proposed work plans or submissions until a fully executed agreement is returned to the Department. If you have any questions or comments, feel free to call me.

Very truly yours,

{Project Attorney}

Enclosure

cc: w/o enc. *{Regional VCP Coordinator}*
{Project Manager}

bc: w/o enc. *{Central Office Legal Coordinator}*
{Chief, B/VCS}
{Central Office VCP Coordinator}
{NYSDOH VCP Coordinator}

Form No. 3: IWP Recommendation Memo to Regional VCP Coordinator
{instructions for completing this form appear on the first page of this Section}

TO: *(Regional VCP Coordinator)*
FROM: *(Project Manager)* THRU *(Central Office VCP Coordinator for the Region)*
SUBJECT: **Voluntary Cleanup Project: Investigation Work Plan Approval** *{modify this memo as needed for OM&M Work Plans}*
(Site Name, VCP Site No.) _____ Approved _____ Date
DATE:

Attached is an Investigation Work Plan for the subject site. As discussed below, we believe the scope and methodology of the investigation meets the requirements of the Program. We recommend your approval.

Volunteer: *(also indicate whether Volunteer is a PRP or innocent owner/non-owner for the site):*

Site Location: *(include Region, County, Town, and City or Village if applicable, and site address)*

Project Description: *(include; 1) a description of the site and surrounding land uses; 2) a summary of what is known of the nature and extent of contamination at the site; 3) site use that led to contamination; 4) intended site use after cleanup; 5) the major goals of the investigation and the methods to achieve those goals; 6) discuss whether we suspect off-site problems, whether the Volunteer will address off-site problems and if so, how, and if not, what will be done to address off-site issues; and 7) a list of any issues (legal, technical, political, public, financial, etc.) that should be taken into consideration)*

Registry Status: *{describe Registry status and if a listing package has been prepared}*

Quality Assurance/Quality Control: *(Include a statement that appropriate QA/QC procedures (including DUSR or validation) are included in the Work Plan. If data from previous investigations have been used to make decisions relevant to this VCA, a statement is needed that the previous data is useable.)*

Citizen Participation: A mailing list and fact sheet have been prepared. A fact sheet will be issued to surrounding property owners, local elected officials, and other interested groups/media prior to the start of field work.

Health Department Concurrence: *(for Investigation Work Plans, need written approval from the NYSDOH Project Manager)*

Recommendation: *(a statement that the Work Plan is complete, will provide the information needed to make a decision about remediation, and a recommendation regarding approval or disapproval)*

cc: w/o att. *Regional Director*
Central Office Legal Coordinator
Project Attorney
Central Office VCP Coordinator
B/VCS, BPM
NYSDOH Project Manager

Form No. 4: RAWP Recommendation Memo to Bureau Director (or Director, DER)
{instructions for completing this form appear on the first page of this Section}

TO: *Bureau Director, Bureau of _____ Remedial Action, DER*
FROM: *(Project Manager's Supervisor)* THRU *(Central Office VCP Coordinator for the Region)*
BY: *Project Manager*
SUBJECT: **Remedial Action Work Plan**
(Site Name, VCP Site No.) _____ Approved _____ Date
DATE:

Attached is a Remedial Action Work Plan for the subject site. As discussed below, we believe the remedy will be protective of public health and the environment for the Contemplated Use.

Volunteers Name: *(indicate whether Volunteer is a PRP or innocent owner/non-owner for the site):*

Site Location: *(include Region, County, Town, and City or Village if applicable, and site address)*

Date of Agreement: *(indicate when the VCA was signed)*

Project Description: *(include: 1) a description of the site and surrounding land uses; 2) site use that led to contamination; 3) describe the results of the voluntary investigation and summarize the nature and extent of contamination; 4) intended site use after cleanup; 5) describe how the proposed remedy will achieve the cleanup goals given the Contemplated Use; 6) indicate that an approved report stamped by a PE is attached that shows how the remedy would meet the selection factors given in 375-1.10(c); 7) discuss whether we suspect off-site problems, whether the Volunteer will address off-site problems and if so, how, and if not, what will be done to address off-site issues; and 8) a list of any issues (legal, technical, political, public, financial, etc.) that should be brought to the Director's attention.)*

Registry Status: *{describe Registry status and if a listing package has been prepared}*

Quality Assurance/Quality Control: *(State that appropriate QA/QC procedures (including DUSR or validation) are included in the Work Plans. If data from previous investigations have been used, state that the previous data is useable.)*

Citizen Participation: An ENB notice, mailing list and fact sheet have been prepared and will be issued in accordance with the Internal Procedures guidance. Final approval of the work plan is contingent upon the completion of the 30-day comment period with no substantive issues raised.

Health Department Concurrence: *(need a letter recommending approval of the Work Plan from the NYSDOH Director, BEEI)*

Recommendation: *(a statement that the supervisor has reviewed the Work Plans, and a recommendation regarding approval or disapproval)*

Attachment

cc: w/o att. *DER Division Director*
Regional Director
Central Office Legal Coordinator
Project Attorney
Central Office VCP Coordinator
B/VCS, BPM
NYSDOH Project Manager

Form No. 5: Example Work Plan Approval Letter
{instructions for completing this form appear on the first page of this Section}

RE: Voluntary Cleanup Project
(Investigation/Remediation) Work Plan
{Site Name, Site No.}

Dear

The Department has completed its review of the *(Investigation/Remediation)* Work Plan for the subject site. Based upon the information and representations given in the Work Plan and previous reports *(specify all relevant reports/correspondence)*, the Work Plan is hereby approved. The Work Plan consists of *(specify the title, date, and preparer of the Work Plan and any other supplementary correspondence or documents)*.

Please contact me at your earliest convenience to discuss scheduling of the various tasks. *(Add any other issues that need to be resolved prior to beginning work; e.g., access, oversight personnel, etc. Include a discussion of the citizen participation activities to be completed.)*

Sincerely,

Regional VCP Coordinator

cc: w/o att. *Central Office Legal Coordinator*
Project Attorney
Central Office VCP Coordinator
B/VCS, BPM
NYSDOH Project Manager
NYSDOH VCP Coordinator

Form No. 6: VCA Joint Recommendation Memorandum
{instructions for completing this form appear on the first page of this Section}

JOINT RECOMMENDATION MEMORANDUM
CONFIDENTIAL/ATTORNEY WORK PRODUCT

TO: Susan Taluto, Deputy Commissioner
FROM: *Project Attorney* and
DER Project Manager THRU *DER Regional VCP Coordinator* and *DER Central Office VCP Coordinator*
SUBJECT: **Voluntary Cleanup Agreement**
Site Name, VCP Site No. V00###-R
DATE:

For your signature, attached are triplicate originals of a Voluntary Cleanup Agreement (VCA) for the subject site. Since this VCA uses the new format, no work plans are attached. We have reviewed the VCA to determine if it meets the requirements of our respective programs and recommend that it be signed. Summary information regarding the project is as follows:

Volunteer: *{name of Volunteer and type, e.g., "innocent owner"}*

Site Location:*(include Region, County, Town, and City or Village if applicable, and site address)*

Project Description: *(include; 1) a description of the site and surrounding land uses; 2) site history and use that led to contamination; 3) summarize what is known of the nature and extent of contamination.)*

Differences Between Final and Model Agreement:

Work to be Done Under This Agreement: *{specify investigation, remediation, or both}*

Contemplated Use: *{specify unrestricted or restricted industrial/commercial/residential and specific intended use, if known}*

Registry Status: *{state if listed or if a listing package has been prepared; state proposed classification}*

Cost Recovery Provisions: *{state if cost recovery addresses past costs, future costs, or both}*

Additional Information/Significant Issues: *(include a list of any issues (legal, technical, political, public, financial, etc.) associated with the project.)*

Recommendation: Based upon our review, we recommend your approval.

Attachments

ec: w/o att. *DER Division Director*
Regional Director
Bureau Director
Chief, B/VCS
NYSDOH VCP Coordinator

Form No. 7: Example Investigation Approval Letter
{instructions for completing this form appear on the first page of this Section}

Dear *{Volunteer}*:

RE: **Voluntary Cleanup Project**
{Site Name, Site No.}

The Department has completed its review of the investigation report entitled, "*{title}*," dated *{date}* and has determined that the report substantially addresses the requirements of the Voluntary Cleanup Agreement and Investigation Work Plan dated *date*. The investigation report is hereby approved.

Based upon the results of the investigation, the Department has determined that remediation of the site is necessary. *{Provide a discussion and summary of the basis for this conclusion.}*

After evaluating the nature and extent of contamination as well as the exposure assessments associated with this site, the following site-specific preliminary remedial action objectives have been identified:
{list RAOs in bullet format or as appropriate}

The next steps in the process are to identify a proposed remedy for the site and prepare a Remedial Action Work Plan. Please contact me at your earliest convenience to discuss the details of these tasks. Also, please remember that the Remedial Action Work Plan must include an evaluation certified by a professional engineer explaining how the proposed remedy will achieve each of the remedial action objectives and how the proposed remedy will meet each of the evaluation factors listed in 6 NYCRR 375-1.10(c).

We look forward to working together to identify and implement a remedy that once completed will help place this site into productive use. If you have any additional questions, please contact me.

Sincerely,

{Project Manager}

cc: w/o enc. *{Regional VCP Coordinator}*
{Project Attorney}

bc: w/o enc. *{Central Office Legal Coordinator}*
{Director, BPM}
{Chief, B/VCS}
{Central Office VCP Coordinator}
{NYSDOH Project Manager}
{NYSDOH VCP Coordinator}

Form No. 8: ENB Notice

The ENB SEQRA Notice Publication Form - *Please check all that apply.*

Deadline: Notices must be received by 6 p.m. Wednesday to appear in the following Wednesday's ENB.

____Negative Declaration - Type I

____Conditioned Negative Declaration

____Draft Negative Declaration

____Positive Declaration
____ with Public Scoping Session

____Draft EIS
____with Public Hearing
____Generic
____Supplemental

____Final EIS
____Generic
____Supplemental

DEC Region #_____ County:_____ Lead Agency:_____

Project Title: Availability of Voluntary Cleanup Project Work Plan for Comment
(VCP Site Name and No.)

Project Location: *(Include Region, County, Town, Village and specific site address)*

Brief Project Description: *{Include a brief description of the site, the remedy, and Contemplated Use of the site including information on job creation, if known.}*

For Draft Negative Declaration/Draft EIS: Public Comment Period ends:___/___/___

For Public Hearing or Scoping Session: Date___/___/___ Time:___:___am/pm
Location:

For Conditioned Negative Declaration: *{In summary, conditions include: . . . }*

Contact person: *{Name, Region, Address, Phone, Fax, Email}*

Email completed form to: Bulletin, Environmental (userid: enb)

Form No. 9: Technical Satisfactory Completion Memorandum

{instructions for completing this form appear on the first page of this Section}

TO: *Central Office Legal Coordinator,* Division of Environmental Enforcement
FROM: *(Project Manager's supervisor)* THRU *(Central Office VCP Coordinator for the Region)*
BY: *(Project Manager)*
SUBJECT: **Project Completion and Recommendation to Issue Release**
Voluntary Cleanup Agreement: (Site Name, VCP Site No.)
DATE:

Volunteer's Name: *{indicate whether Volunteer is a PRP or innocent owner/non-owner for the site}:*
Site Location: *{include Region, County, Town, and City or Village if applicable, and site address}*
Date of Agreement:
Title, Date, and Preparer of Work Plan: *(identify any revisions or supplemental documents)*
Site Description: *{include; 1) site description and surrounding land uses; 2) site use that led to contamination; and 3) a summary of the nature and extent of contamination at the site.}*

Project Requirements & Results: *{Using the format below, list each of the significant technical requirements of the VCA and associated Work Plan along with a description of how the requirement was/was not met. State if any changes are needed to the definition of "existing contamination." State whether there are any significant off-site issues that have not been covered under this VCA. If there are off-site issues, recommend actions to address them.}*

The following discussion generally summarizes how each of the significant technical requirements of the VCA and Work Plan were met by the Volunteer.

Requirement No. 1:
Result No. 1: *{etc.}*

Conclusions: *{State whether the Volunteer has met all of the requirements of the Work Plan and VCA. Evaluate the significance of any requirements not completely met and any new information relevant to the completion of the project. If a conclusion has been reached after investigation that remediation is not necessary, discuss the basis of this conclusion.}*

Health Department Concurrence: *{Provide a statement that the State NYSDOH (and County agencies as appropriate) have concurred with the conclusions given in this memo. Attach a letter from the DOH PM or Director, BEEI, as appropriate (see §7.4.5.b)}*

Registry Status: *{Describe what decision was made about Registry classification prior to the VCA and whether any change to that decision is appropriate at this time.}*

Site Use Restrictions and OM&M: *{State whether use restrictions have been verified and if OM&M is needed to achieve remedial goals (if so, describe) and the status of OM&M Plan.}*

Recommendation: *{Provide a recommendation about whether the Central Office Legal Coordinator should issue an assignable release and covenant not to sue based upon the Volunteer's having met the technical requirements of the VCA.}*

cc: w/o att. *Project Attorney* *NYSDOH Project Manager*
Regional VCP Coordinator *NYSDOH VCP Coordinator*
Director, BPM {for notification to initiate cost recovery per the VCA}

New York State Department of Environmental Conservation
Division of Environmental Enforcement
***Western* Field Unit**
270 Michigan Avenue, Buffalo, New York 14203-2999
Phone: (716) 851-7050 • **FAX:** (716) 851-7067
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

June 3, 2002

Frank C. Brown
Rexam, Inc.
4201 Congress Street
Charlotte, North Carolina 28209

Re: Voluntary Cleanup Program: Fibermark DSI, Inc. (former Rexam DSI, Inc.)
VCP Site No. V00525-6;
Volunteer: Rexam, Inc.

Dear Mr. Brown:

Enclosed find one fully executed Voluntary Cleanup Agreement for the above titled site. The Agreement has an effective date of June 10, 2002. In accordance with the Agreement the Volunteer is required to file a Department-approved Notice of Agreement with the Mecklenburg County Clerk by July 10, 2002. The Agreement provides that the first proposed work plan will be submitted within 40 days after the effective date of the Agreement. I suggest that you contact Peter Ouderkirk, the Project Manager for this Site (315-785-2584) to commence the work plan development process.

Thank you for your assistance in resolving this matter. Please call me if you have any questions.

Very truly yours,

Maura C, Desmond
Senior Attorney

MCD:d:k
A:D1708.24

cc: P. Ouderkirk
M. Roman

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of the Implementation of a **Voluntary Cleanup Agreement**

for: FiberMark DSI, Inc. (former Rexam DSI, Inc.) by: Rexam, Inc., "Volunteer"
Site #: V00525-6 Index #: B6-0610-02-03

WHEREAS, the Department is responsible for the enforcement of the ECL and the NL and such laws provide the Department authority to enter into this Agreement;

WHEREAS, the Department has established a Voluntary Cleanup Program to address the environmental, legal, and financial barriers that hinder the redevelopment and reuse of contaminated properties;

WHEREAS, Volunteer represents, and the Department relied upon such representations in entering into this Agreement, that Volunteer's involvement with the Site is limited to the following: Volunteer is a former owner and operator of the Site.

WHEREAS, the parties are entering into this Agreement in order to set forth a process through which the Department will approve and the Volunteer will implement activities designed to address in whole or in part environmental contamination at the Site; and

WHEREAS, the Department has determined that it is in the public interest to enter into this Agreement as a means to address environmental issues at the Site with private funds while ensuring the protection of human health and the environment;

NOW, THEREFORE, IN CONSIDERATION OF AND IN EXCHANGE FOR THE MUTUAL COVENANTS AND PROMISES, THE PARTIES AGREE TO THE FOLLOWING:

I. Site Specific Definitions

For purposes of this Agreement, the terms set forth in the Glossary attached to, and made a part of, this Agreement shall have the meanings ascribed to them in that Glossary. In addition, for purposes of this Agreement, the following terms shall have the following meanings:

A. "Contemplated Use": restricted industrial use.

B. "Existing Contamination": The Main Plant, the Warehouse and the surrounding site have been found to contain several areas of concern which are contaminated with various petroleum based products, semi-volatile organic compounds, and metals. Further information regarding Existing Contamination can be found in the following reports prepared by the environmental consultant Envision Environmental, Inc.: "Phase I Environmental Assessment Report" (August 2000), and "Phase II Environmental Assessment Report" (December 2000). The term also includes contamination identified during the implementation of this Agreement,

the nature and extent of which were unknown or insufficiently characterized as of the effective date of this Agreement, but which shall have been fully characterized and addressed to the Department's satisfaction.

C. "Site": that approximately 3.8 acre parcel of real property which is located on the north side of the Black River on the east and west sides of Bridge Street in the Village of Brownsville. The site includes two buildings. The Main Plant and Paper Production Facility is located on the west side of Bridge Street and is about 3.5 acres. A warehouse is located on the east side of Bridge Street on about 0.3 acres and is used for the storage of finished products. The facility has been in operation for over 100 years and has been historically used as a cotton mill and a paper mill. The site is currently used for the production of latex-saturated paper. The Site is located at 44° 01' 00" latitude and 75° 59' 00" and has the following tax map identifier 73.72-2-38. Exhibit "A" of this Agreement is a map of the Site showing its general location.

D. "Volunteer": Volunteer Rexam Inc. is a corporation organized and existing under the laws of the State of Delaware with offices at 4201 Congress Street, Charlotte, North Carolina 28209.

II. Development, Performance and Reporting of Work Plans

A. Work Plan Labels

The work plans ("Work Plan" or "Work Plans") under this Agreement shall be captioned as follows:

1. "Investigation Work Plan" if the Work Plan provides for the investigation of the nature and extent of contamination at the Site;

2. "IRM Work Plan" if the Work Plan provides for an interim remedial measure;

3. "Remedial Action Work Plan" if the Work Plan provides for the Site's remediation to cleanup levels sufficient to allow for the Contemplated Use of the Site; or

4. "OM&M Work Plan" if the Work Plan provides for post-remedial construction operation, maintenance, and/or monitoring.

B. Submission/Implementation of Work Plans

1. The first proposed Work Plan to be submitted under this Agreement shall be submitted within forty (40) Days after the effective date of this Agreement. Thereafter, the Volunteer can submit such other and additional work plans it deems appropriate.

2. A proposed Work Plan shall be submitted for the Department's review and approval and shall include, at a minimum, a chronological description of the anticipated activities, a schedule for performance of those activities, and sufficient detail to allow the

Department to evaluate that Work Plan. A Professional Engineer must prepare, sign, and seal all Work Plans other than an Investigation Work Plan. Upon the Department's written approval of a Work Plan, such Department-approved Work Plan shall be incorporated into and become an enforceable part of this Agreement and shall be implemented in accordance with the schedule contained therein. If the Department disapproves a Work Plan, the reasons for such disapproval shall be provided in writing. In the event the Department disapproves a Work Plan, within twenty (20) Days after receiving written notice of such disapproval, Volunteer shall elect in writing to: (i) modify or expand it; (ii) complete any other Department-approved Work Plan(s); (iii) invoke dispute resolution pursuant to Paragraph XIII; or (iv) terminate this Agreement pursuant to Subparagraph XII.A.

3. During all field activities, Volunteer shall have on-Site a representative who is qualified to supervise the activities undertaken. Such representative may be an employee or a consultant retained by Volunteer to perform such supervision.

C. Revisions to Work Plans

If revisions to a Work Plan are required to satisfy the objectives of such Work Plan, the parties will negotiate revisions which shall be attached to and incorporated into the relevant Work Plan and which shall be enforceable under this Agreement. If the parties cannot agree upon revisions to the relevant Work Plan, then unless the Volunteer invokes dispute resolution pursuant to Paragraph XIII, either party may terminate this Agreement pursuant to Subparagraph XII.A.

D. Submission of Final Reports

1. In accordance with the schedule contained in a Work Plan, Volunteer shall submit a final report which includes the caption of that Work Plan on the cover page. The final report pertaining to that Work Plan's implementation shall include but not be limited to: all data generated relative to the Site and all other information obtained as part of the implementation of the subject Work Plan; all of the assessments and evaluations required by the subject Work Plan; a statement of any additional data that must be collected; and "as-built" drawings, to the extent necessary, showing all changes made during construction. Additionally, the final report for an Investigation Work Plan shall contain a certification by the person with primary responsibility for the day to day performance of the activities under this Agreement that those activities were performed in full accordance with the Investigation Work Plan, and all other Work Plan final reports must contain such certification made by a Professional Engineer with primary responsibility for the day to day performance of the activities under this Agreement that all such activities were performed in full accordance with the Department approved Work Plan.

2. An OM&M Work Plan, if necessary, shall be submitted in accordance with the schedule set forth in the IRM Work Plan or Remedial Action Work Plan.

E . Review of Submittals other than Work Plans

1. The Department shall timely notify Volunteer in writing of its approval or disapproval of each submittal other than a Work Plan. All Department-approved submittals shall be incorporated into and become an enforceable part of this Agreement.

2. If the Department disapproves a submittal covered by this subparagraph, it shall specify the reasons for its disapproval and may request Volunteer to modify or expand the submittal. Within twenty (20) Days after receiving written notice that Volunteer's submittal has been disapproved, Volunteer shall elect in writing to either (i) modify or expand it; (ii) complete any other Department-approved Work Plan(s); (iii) invoke dispute resolution pursuant to Paragraph XIII; or (iv) terminate this Agreement pursuant to Subparagraph XII.A. If Volunteer submits a revised submittal and it is disapproved, the Department and Volunteer may pursue whatever remedies may be available under this Agreement or under law.

3. Within sixty (60) Days of the Department's approval of a final report, Volunteer shall submit such additional Work Plans as it proposes to implement. Failure to submit any additional Work Plans within such period shall, unless other Work Plans are under review by the Department or being implemented by Volunteer, result in the termination of this Agreement pursuant to Subparagraph XII.B.

4. All approved final reports shall be submitted to the Department in an electronic format acceptable to the Department within thirty (30) Days of approval of such final report. If any document cannot be converted into electronic format, Volunteer shall so advise the Department and, if the Department concurs, submit such document in an alternative format acceptable to the Department.

F . Department's Determination of Need for Remediation

The Department will determine upon its approval of each final report dealing with the investigation of the Site whether remediation, or additional remediation as the case may be, is needed to allow the Site to be used for the Contemplated Use.

1. The Department shall timely notify Volunteer if it determines that remediation, or additional remediation, is not needed to allow the Site to be used for the Contemplated Use. If the Department determines that additional remediation is not needed and such determination is based upon use restrictions, Volunteer shall cause to be filed a Declaration of Covenants and Restrictions in accordance with Paragraph X within sixty (60) Days of receipt of the Department's determination. Upon receipt of a copy of such instrument, the Department will provide Volunteer with the Release described in Subparagraph II.H.

2. If the Department determines that remediation, or additional remediation, is needed to allow the Site to be used for the Contemplated Use, Volunteer may elect to submit

for review and approval a proposed Work Plan (or a revision to an existing Remedial Action Work Plan for the Site) which addresses the remediation of Existing Contamination. Such proposed Work Plan shall include, among other requirements, an evaluation of the proposed remedy considering the factors set forth in 6 NYCRR 375-1.10(c)(1) through (c)(6), excluding consideration of cost-effectiveness. At a minimum, the remedial activities contemplated by the proposed Work Plan must eliminate or mitigate all significant threats to the public health and/or the environment and must result in the Site being protective of public health and the environment for the Contemplated Use. The Department will notice a proposed Work Plan addressing the Site's remediation for public comment in accordance with Subparagraph II.G of this Agreement. If Volunteer elects not to develop a Work Plan under this Subparagraph or either party concludes that a mutually acceptable Work Plan under this Subparagraph cannot be negotiated, then this Agreement shall terminate in accordance with Subparagraph XII.A

G. Notice of Proposed Work Plan for the Site's Remediation

Whenever a Work Plan for the Site's remediation (other than an IRM Work Plan) is proposed, the Department will timely publish a notice in the Environmental Notice Bulletin to inform the public of the opportunity to submit comments on the proposed Work Plan within thirty (30) Days after the date of the issue in which the notice appears. The Department shall timely mail an equivalent notice to the Village of Brownsville and County of Jefferson. The Department shall timely notify Volunteer following the close of the public comment period whether the proposed Work Plan needs to be revised. If the Department determines that revisions are necessary for Site conditions to be protective of the public health or the environment based upon the Contemplated Use, Volunteer agrees to negotiate revisions to the proposed Work Plan in accordance with Paragraph II.C. If either party concludes that such revisions cannot be negotiated, then this Agreement shall terminate in accordance with Subparagraph XII. If the Department determines that no revisions are required, then the Work Plan shall be attached hereto as Exhibit "B."

H. Release and Covenant Not to Sue

Upon the Department's determination that (i) Volunteer is in compliance with the Agreement; (ii) no requirements other than those remedial actions, exclusive of OM&M activities, already conducted at the Site, if any, are necessary to assure that Site conditions are protective of the public health and the environment based upon the Contemplated Use; and (iii) Volunteer has complied, if required, with Paragraph X, the Department shall timely provide Volunteer with the Release and Covenant Not to Sue attached hereto as Exhibit "C," subject to the terms and conditions stated therein.

I. Submission of Annual Reports, if required

In the event that the remedy for the Site, if any, or any Work Plan for the Site requires operation, maintenance, and monitoring (OM&M), including reliance upon institutional or

engineering controls, Volunteer shall cause the filing of an annual report by the 1st Day of the month following the anniversary of the start of the OM&M. Volunteer shall file such annual report until the Department determines that the Site can be closed out and so notifies Volunteer in writing. Such annual report shall be signed by a Professional Engineer and shall contain a certification that any institutional and engineering controls put in place pursuant to this Agreement are still in place, have not been materially altered, and are still effective in achieving their objectives. Volunteer shall notify the Department within twenty-four (24) hours of discovery of any upset, interruption, or termination of one or more controls without the prior approval of the Department. Further, Volunteer shall take all actions required by the Department to maintain conditions at the Site that achieve the objectives of the remedy and/or the Work Plan and are protective of public health and the environment. An explanation of such upset, interruption, or termination of one or more controls and the steps taken in response shall be included in the foregoing notice and in the annual report required by this Subparagraph as well as in any progress reports required by Paragraph III. Volunteer can petition the Department for a determination that the institutional and/or engineering controls may be terminated. Such petition must be supported by a Professional Engineer stating that such controls are no longer necessary for the protection of public health and the environment. The Department shall not unreasonably withhold its approval of such petition.

III. Progress Reports

Volunteer shall submit a written progress report of its actions under this Agreement to the parties identified in Subparagraph XI.A.1 by the 10th Day of each month commencing with the month subsequent to the approval of the first Work Plan and ending with the Termination Date, unless a different frequency is set forth in a Work Plan. Such reports shall, at a minimum, include: all actions relative to the Site during the previous reporting period and those anticipated for the next reporting period; all approved activity modifications (changes of work scope and/or schedule); all results of sampling and tests and all other data received or generated by or on behalf of Volunteer in connection with this Site, whether under this Agreement or otherwise, in the previous reporting period, including quality assurance/quality control information; information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule, efforts made to mitigate such delays, and information regarding activities undertaken in support of the Citizen Participation Plan during the previous reporting period and those anticipated for the next reporting period.

IV. Enforcement

This Agreement shall be enforceable as a contractual agreement under the laws of the State of New York. Volunteer shall not suffer any penalty or be subject to any proceeding or action if it cannot comply with any requirement of this Agreement as a result of a Force Majeure Event provided it notifies the Department in writing within ten (10) Working Days of when it obtains knowledge of any such event. Volunteer shall include in such notice the measures taken and to be taken to prevent or minimize any delays and shall request an appropriate extension or

modification of this Agreement. Volunteer shall have the burden of proving by a preponderance of the evidence that an event qualifies as a Force Majeure Event pursuant to this Paragraph.

V. Entry upon Site

A. Volunteer hereby consents, upon reasonable notice under the circumstances presented, to entry upon the Site or areas in the vicinity of the Site which may be under the control of Volunteer, by any duly designated officer or employee of the Department or any State agency having jurisdiction with respect to the matters addressed in a Department-approved Work Plan, and by any agent, consultant, contractor or other person so authorized by the Commissioner, all of whom shall abide by the health and safety rules in effect for the Site, for (i) inspecting, sampling, and copying records related to the contamination at the Site; (ii) implementing the activities under this Agreement; and (iii) testing and any other activities necessary to ensure Volunteer's compliance with this Agreement. Upon request, Volunteer shall (i) provide the Department with suitable office space at the Site, including access to a telephone, to the extent available; and (ii) permit the Department full access to all non-privileged records relating to matters addressed by this Agreement. Raw data is not considered privileged and that portion of any privileged document containing raw data must be provided to the Department.

B. The Department shall have the right to take its own samples and scientific measurements and the Department and Volunteer shall have the right to obtain samples, duplicate samples, or both, of all substances and materials sampled. The Department shall make the results of all sampling and scientific measurements taken under this Subparagraph available to Volunteer.

VI. Payment of State Costs

A. Within forty-five (45) Days after receipt of an itemized invoice from the Department, Volunteer shall pay to the Department a sum of money which shall represent reimbursement for State Costs for work performed at or in connection with the Site prior to the effective date of this Agreement, as well as for negotiating this Agreement, and all costs associated with this Agreement, through and including the Termination Date.

B. Personal service costs shall be documented by reports of Direct Personal Service, which shall identify the employee name, title, biweekly salary, and time spent (in hours) on the project during the billing period, as identified by an assigned time and activity code. Approved agency fringe benefit and indirect cost rates shall be applied. Non-personal service costs shall be summarized by category of expense (*e.g.*, supplies, materials, travel, contractual) and shall be documented by expenditure reports. The Department shall not be required to provide any other documentation of costs, provided however, that the Department's records shall be available consistent with, and in accordance with, Article 6 of the Public Officers Law.

C. Such invoice shall be sent to Volunteer at the following address:

Frank C. Brown
Rexam Inc.
4201 Congress Street
Charlotte, North Carolina 28209

D. Each such payment shall be made payable to the Department of Environmental Conservation and shall be sent to: Bureau of Program Management, Division of Environmental Remediation, New York State Department of Environmental Conservation, 625 Broadway, Albany, NY 12233-7010.

E. Each party shall provide written notification to the other within ninety (90) Days of any change in the foregoing addresses.

F. Volunteer may contest, in writing, invoiced costs under Subparagraph VI.A if it believes (i) the cost documentation contains clerical, mathematical, or accounting errors; (ii) the costs are not related to the State's activities reimbursable under this Agreement; or (iii) the Department is not otherwise legally entitled to such costs. If Volunteer objects to an invoiced cost, Volunteer shall pay all costs not objected to within the time frame set forth in Subparagraph VI.A and shall, within thirty (30) Days of receipt of an invoice, identify in writing all costs objected to and identify the basis of the objection. This objection shall be filed with the BPM Director. The BPM Director or the BPM Director's designee shall have the authority to relieve Volunteer of the obligation to pay invalid costs. Within forty-five (45) Days of the Department's determination of the objection, Volunteer shall pay to the Department the amount which the BPM Director or the BPM Director's designee determines Volunteer is obligated to pay or commence an action or proceeding seeking appropriate judicial relief.

G. In the event any instrument for the payment of any money due under this Agreement fails of collection, such failure of collection shall constitute a violation of this Agreement, provided (i) the Department gives Volunteer written notice of such failure of collection, and (ii) the Department does not receive from Volunteer a certified check or bank check within fourteen (14) Days after the date of the Department's written notification.

VII. Reservation of Rights

A. 1. Except as provided in the Release and Covenant Not to Sue (Exhibit "C") after its issuance and except as provided in Subparagraph VII.A.2, nothing contained in this Agreement shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights or authorities, including, but not limited to, the right to recover natural resource damages, the right to take any investigatory or remedial action deemed necessary, and the right to exercise summary abatement powers with respect to any person, including Volunteer.

2. Except for the Department's right to take any investigatory or remedial action deemed necessary as a result of a significant threat resulting from the Existing Contamination or to exercise summary abatement powers, the Department shall not take any enforcement action under ECL Article 27, Title 13, under CERCLA, under the NL, or under comparable statutory or common law theories of remedial liability with respect to the Existing Contamination, to the extent that such contamination is being addressed under the Agreement, against Volunteer or Volunteer's grantees, successors, or assigns during the implementation of this Agreement, provided such party is in compliance with the terms and provisions of this Agreement, including, without limitation, the requirements of all Work Plans and amendments thereto.

B. Except as otherwise provided in this Agreement, Volunteer specifically reserves all rights and defenses under applicable law to contest, defend against, dispute, or disprove any actions, proceedings, allegations, assertions, determination, or order of the Department, including any assertion of remedial liability by the Department against Volunteer, and further reserves all rights including the rights to notice, to be heard, to appeal, and to any other due process respecting any action or proceeding by the Department, including the enforcement of this Agreement. The existence of this Agreement or Volunteer's compliance with it shall not be construed as an admission of any liability, fault, wrongdoing, or violation of law by Volunteer, and shall not give rise to any presumption of law or finding of fact which shall inure to the benefit of any third party.

C. Except as provided in Subparagraph XIV.O, Volunteer reserves such rights as it may have to seek and obtain contribution, indemnification, and/or any other form of recovery from its insurers and from other potentially responsible parties or their insurers, for past or future response and/or cleanup costs or such other costs or damages arising from contamination at the Site as provided under applicable law.

VIII. Indemnification

Volunteer shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless for all claims, suits, actions, damages, and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Agreement by Volunteer prior to the Termination Date except for liability arising from (i) vehicular accidents occurring during travel to or from the Site; or (ii) from willful, wanton, or malicious acts or omissions, or acts or omissions constituting gross negligence or criminal behavior by the Department, the State of New York, and/or their representatives and employees during the course of any activities conducted pursuant to this Agreement. The Department shall provide Volunteer with written notice no less than thirty (30) Days prior to commencing a lawsuit seeking indemnification pursuant to this Paragraph.

IX. Public Notice

A. Within thirty (30) Days after the effective date of this Agreement, Volunteer shall cause to be filed a Department-approved Notice of Agreement, which Notice shall be substantially similar to the Notice of Agreement attached to this Agreement as Exhibit "D," with the County Clerk in the county in which the Site is located (or the City Register if the Site is located in Manhattan, Bronx, Kings or Queens County) to give all parties who may acquire any interest in the Site notice of this Agreement. Within thirty (30) Days of such filing (or such longer period of time as may be required to obtain a certified copy provided Volunteer advises the Department of the status of its efforts to obtain same within thirty (30) Days), Volunteer shall provide the Department with a copy of such instrument certified by such County Clerk (or the City Register) to be a true and faithful copy. Volunteer may terminate such Notice on or after the Termination Date of this Agreement.

B. If Volunteer proposes to convey the whole or any part of Volunteer's ownership interest in the Site, or becomes aware of such conveyance, Volunteer shall, not fewer than forty-five (45) Days before the date of conveyance or within forty-five (45) Days after becoming aware of such conveyance, notify the Department in writing of the identity of the transferee and of the nature and proposed date of the conveyance, and shall notify the transferee in writing, with a copy to the Department, of the applicability of this Agreement. However, such obligation shall not extend to the granting of any rights under any mortgage, deed, trust, assignment, judgment, lien, pledge, security agreement, lease, or any other right accruing to a person not affiliated with Volunteer to secure the repayment of money or the performance of a duty or obligation.

X. Declaration of Covenants and Restrictions

A. Within thirty (30) Days after the Department's approval of a Work Plan which relies upon one or more institutional controls, or within thirty (30) Days after the Department's determination pursuant to Subparagraph II.F.1 that additional remediation is not needed based upon use restrictions, Volunteer shall submit to the Department for approval a Declaration of Covenants and Restrictions to run with the land which provides for covenants and restrictions consistent with the Work Plan. The submittal shall be substantially similar to Exhibit "E." Volunteer shall cause such instrument to be recorded with the County Clerk (or the City Register) in the county in which the Site is located within thirty (30) Days after the Department's approval of such instrument. Volunteer shall provide the Department with a copy of such instrument certified by the County Clerk (or the City Register) to be a true and faithful copy within thirty (30) Days of such recording (or such longer period of time as may be required to obtain a certified copy provided Volunteer advises the Department of the status of its efforts to obtain same within such 30 Day period).

B. Volunteer or the owner of the Site may petition the Department to modify or terminate the Declaration of Covenants and Restrictions filed pursuant to this Paragraph at such time as it can certify that the Site is protective of human health and the environment for residential uses without reliance upon the restrictions set forth in such instrument. Such certification shall be made by a Professional Engineer. The Department will not unreasonably withhold its consent.

XI. Communications

A. All written communications required by this Agreement shall be transmitted by United States Postal Service, by private courier service, or hand delivered.

1. Communication from Volunteer shall be sent to:

Darrell Sweredoski
Region 6 Division of Environmental Remediation Engineer
State Office Building
317 Washington Street
Watertown, New York 13601
Note: four copies (one unbound) of work plans are required to be sent.

Michael Komoroske
Central Office VCP Coordinator
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7017

Gary Litwin
Bureau of Environmental Exposure Investigation
New York State Department of Health
Flanigan Square
547 River Street
Troy, New York 12180-2216

Note: two copies of work plans are required to be sent, and

Maura C. Desmond
New York State Department of Environmental Conservation
Division of Environmental Enforcment
270 Michigan Avenue
Buffalo, New York 14203

2. Communication from the Department to Volunteer shall be sent to:

Frank C. Brown
Rexam Inc.
4201 Congress Street
Charlotte, North Carolina 28209

Mark Roman
Envision Environmental
21 Priscilla Lane
Howell, New Jersey 07731

B. The Department and Volunteer reserve the right to designate additional or different addressees for communication on written notice to the other.

C. Each party shall notify the other within ninety (90) Days after any change in the addresses listed in this Paragraph XI or in Paragraph VI.

XII. Termination of Agreement

A. 1. Volunteer may elect in writing to terminate this Agreement without cause while the Department may only elect to terminate this Agreement for cause, which shall be established so long as the Department's stated reason is not arbitrary and capricious. The Department shall include in its notice of termination the basis for its election to terminate this Agreement.

2. In the event of either party's election to terminate this Agreement, this Agreement shall terminate effective the 5th Day after the non-terminating party's receipt of the written notification terminating this Agreement, except that such termination shall not affect the provisions contained in Paragraphs IV, VI and VIII and in Subparagraph XIV.O, nor Volunteer's obligation to ensure that it does not leave the Site in a condition, from the perspective of human health and environmental protection, worse than that which prevailed before any activities were commenced under this Agreement, which provisions and obligation shall survive the termination of this Agreement.

B. Notwithstanding Subparagraph XII.A, this Agreement shall terminate without notice in the event that Volunteer fails to submit additional Work Plans in accordance with Subparagraph II.E, unless other Work Plans are under review by the Department or being implemented by Volunteer.

XIII. Dispute Resolution

A. If Volunteer disagrees with the Department's notice of disapproval of a submittal or a proposed Work Plan, disapproval of a final report, nullification of this Agreement pursuant to Subparagraph XIV.A.2, or rejection of Volunteer's assertion of a Force Majeure Event, Volunteer may, within thirty (30) Days of receipt of such notice, request in writing informal negotiations with the Department in an effort to resolve the dispute. A copy of such request shall be sent by Volunteer to the appropriate Remedial Bureau Chief in the Department's Central Office. The Department and Volunteer shall consult together in good faith and exercise best efforts to resolve any differences or disputes without resort to the procedures described in Subparagraph XIII.B. The period for informal negotiations shall not exceed thirty (30) Days from Volunteer's request for informal negotiations. If the parties cannot resolve a dispute by informal negotiations during this period, the Department's position shall be considered binding unless Volunteer notifies the Department in writing within thirty (30) Days after the conclusion of the thirty (30) Day period for informal negotiations that it invokes the dispute resolution provisions provided under Subparagraph XIII.B.

B. 1. Volunteer shall file with the "OH&M" a request for formal dispute resolution and a written statement of the issues in dispute, the relevant facts upon which the dispute is based, factual data, analysis, or opinion supporting its position, and all supporting documentation upon which Volunteer relies (hereinafter called the "Statement of Position"). A

copy of such request and written statement shall be provided contemporaneously to the Director and to the parties listed under Subparagraph XI.A.1.

2. The Department shall serve its Statement of Position no later than twenty (20) Days after receipt of Volunteer's Statement of Position.

3. Volunteer shall have the burden of proving by substantial evidence that the Department's position does not have a rational basis and should not prevail. The OH&M can conduct meetings, in person or via telephone conferences, and request additional information from either party if such activities will facilitate a resolution of the issues.

4. The OH&M shall prepare and submit a report and recommendation to the Director. The Director shall issue a final decision resolving the dispute in a timely manner. The final decision shall constitute a final agency action and Volunteer shall have the right to seek judicial review of the decision pursuant to Article 78 of the CPLR provided that Volunteer notifies the Department within thirty (30) Days after receipt of a copy of the final decision of its intent to commence an Article 78 proceeding and commences such proceeding within sixty (60) Days after receipt of a copy of the Director's final decision. Volunteer shall be in violation of this Agreement if it fails to comply with the final decision resolving this dispute within forty-five (45) Days after the date of such final decision, or such other time period as may be provided in the final decision, unless it seeks judicial review of such decision within the forty-five (45) Day period provided. In the event that Volunteer seeks judicial review, Volunteer shall be in violation of this Agreement if it fails to comply with the final Court Order or settlement within thirty (30) Days after the effective date of such Order or settlement, unless otherwise directed by the Court. For purposes of this Subparagraph, a Court Order or settlement shall not be final until the time to perfect an appeal of same has expired.

5. The invocation of dispute resolution shall not extend, postpone, or modify Volunteer's obligations under this Agreement with respect to any item not in dispute unless or until the Department agrees or a Court determines otherwise. The invocation of the procedures set forth in this Paragraph XIII shall constitute a waiver of any and all other administrative remedies which may otherwise be available to Volunteer regarding the issue in dispute.

6. The Department shall keep an administrative record of any proceedings under this Paragraph XIII which shall be available consistent with Article 6 of the Public Officers Law.

7. Nothing in this Paragraph XIII shall be construed as an agreement by the parties to resolve disputes through administrative proceedings pursuant to the State Administrative Procedure Act, the ECL, or 6 NYCRR Part 622 or Section 375-2.1.

XIV. Miscellaneous

A. 1. Volunteer hereby certifies that all information known to Volunteer and all information in the possession or control of Volunteer and its agents which relates in any way to the contamination existing at the Site on the effective date of this Agreement, and to any past or potential future release of hazardous substances, pollutants, or contaminants at or from the Site,

and to its application for this Agreement, has been fully and accurately disclosed to the Department in conjunction with the Volunteer's application for the Voluntary Cleanup Program.

2. If the information provided and certifications made by Volunteer are not materially accurate and complete, this Agreement, except with respect to the provisions of Paragraphs IV, VI and VIII and Subparagraph XIV.O, at the sole discretion of the Department, shall be null and void *ab initio* fifteen (15) Days after the Department's notification of such inaccuracy or incompleteness or fifteen (15) Days after issuance of a final decision resolving a dispute pursuant to Paragraph XIII, whichever is later, and the Department shall reserve all rights that it may have, unless, however, Volunteer submits information within that fifteen (15) Day time period indicating that the information provided and the certifications made were materially accurate and complete.

B. Volunteer shall allow the Department to attend, and shall notify the Department at least seven (7) Working Days in advance of, any field activities to be conducted pursuant to this Agreement, as well as any pre-bid meetings, job progress meetings, substantial completion meeting and inspection, and final inspection and meeting; nothing in this Agreement shall be construed to require Volunteer to allow the Department to attend portions of meetings where privileged matters are discussed.

C. Volunteer shall use "best efforts" to obtain all Site access, permits, easements, rights-of-way, rights-of-entry, approvals, institutional controls, or authorizations necessary to perform Volunteer's obligations under this Agreement, except that the Department may exempt Volunteer from the requirement to obtain any permit issued by the Department for any activity that is conducted on the Site and that the Department determines satisfies all substantive technical requirements applicable to like activity conducted pursuant to a permit. If, despite Volunteer's best efforts, any access, permits, easements, rights-of-way, rights-of-entry, approvals, institutional controls, or authorizations required to perform this Agreement are not obtained within forty-five (45) Days after the effective date of this Agreement or within forty-five (45) Days after the date the Department notifies Volunteer in writing that additional access beyond that previously secured is necessary, Volunteer shall promptly notify the Department, and shall include in that notification a summary of the steps Volunteer has taken to obtain access. The Department may, as it deems appropriate and within its authority, assist Volunteer in obtaining access. If an interest in property is needed to implement an institutional control required by a Work Plan and such interest cannot be obtained, the Department may require Volunteer to modify the Work Plan pursuant to Subparagraph II.C of this Agreement to reflect changes necessitated by the lack of access and/or approvals.

D. Volunteer shall not be considered an operator of the Site solely by virtue of having executed and/or implemented this Agreement.

E. Volunteer shall provide a copy of this Agreement to each contractor hired to perform work required by this Agreement and shall condition all contracts entered into to carry out the obligations identified in this Agreement upon performance in conformity with the terms of this Agreement. Volunteer or its contractor(s) shall provide written notice of this Agreement to all subcontractors hired to perform any portion of the work required by this Agreement.

Volunteer shall nonetheless be responsible for ensuring that Volunteer's contractors and subcontractors perform the work in satisfaction of the requirements of this Agreement.

F. The paragraph headings set forth in this Agreement are included for convenience of reference only and shall be disregarded in the construction and interpretation of any provisions of this Agreement.

G. 1. The terms of this Agreement shall constitute the complete and entire agreement between the Department and Volunteer concerning the implementation of the activities required by this Agreement. No term, condition, understanding, or agreement purporting to modify or vary any term of this Agreement shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department shall be construed as relieving Volunteer of Volunteer's obligation to obtain such formal approvals as may be required by this Agreement. In the event of a conflict between the terms of this Agreement and any Work Plan submitted pursuant to this Agreement, the terms of this Agreement shall control over the terms of the Work Plan(s) attached as Exhibit "B." Volunteer consents to and agrees not to contest the authority and jurisdiction of the Department to enter into or enforce this Agreement.

2. i. Except as set forth herein, if Volunteer desires that any provision of this Agreement be changed, other than a provision of a Work Plan or a time frame, Volunteer shall make timely written application to the Commissioner with copies to the parties listed in Subparagraph XI.A.1. The Commissioner or the Commissioner's designee shall timely respond.

ii. Changes to the Work Plan shall be accomplished as set forth in Subparagraph II.C of this Agreement.

iii. Changes to a time frame set forth in this Agreement shall be accomplished by a written request to the Department's project attorney and project manager, which request shall be timely responded to in writing. The Department's decision relative to a request for a time frame change shall be subject to dispute resolution pursuant to Paragraph XIII.

H. 1. If there are multiple parties signing this Agreement, the term "Volunteer" shall be read in the plural where required to give meaning to this Agreement. Further, the obligations of Volunteers under this Agreement are joint and several and the insolvency of or failure by any Volunteer to implement any obligations under this Agreement shall not affect the obligations of the remaining Volunteer(s) to carry out the obligations under this Agreement.

2. If Volunteer is a partnership, the obligations of all general partners, including limited partners who act as general partners, to finance and perform obligations under this Agreement and to pay amounts owed to the Department under this Order are joint and several. In the event of the insolvency or other failure of any one or more of the general partners to implement the requirements of this Agreement, the remaining general partners shall complete all such requirements.

3. Notwithstanding the foregoing Subparagraphs XIV.H.1 and 2, if multiple parties sign this Agreement as Volunteers but not all of the signing parties elect, pursuant to Subparagraph II.F.2, to implement a Work Plan, then all Volunteers are jointly and severally liable for each and every obligation under this Agreement through the completion of activities in such Work Plan that all such parties consented to; thereafter, only those Volunteers electing to perform additional work shall be jointly and severally liable under this Agreement for the obligations and activities under such additional Work Plan(s). The parties electing not to implement the additional Work Plan(s) shall have no obligations under this Agreement relative to the activities set forth in such Work Plan(s). Further, only those Volunteers electing to implement such additional Work Plan(s) shall be eligible to receive the release and covenant not to sue as provided under Subparagraph II.H.

I. Except as provided in Subparagraph XIV.O, and to the extent authorized under 42 U.S.C. Section 9613, New York General Obligations Law Section 15-108, and any other applicable law, Volunteer shall be deemed to have resolved its liability to the State for purposes of contribution protection provided by CERCLA Section 113(f)(2) for "matters addressed" pursuant to and in accordance with this Agreement. "Matters addressed" in this Agreement shall mean all response actions taken to implement this Agreement for the Site and all response costs incurred and to be incurred by any person or party in connection with the work performed under this Agreement, which costs have been paid by Volunteer, including reimbursement of State Costs pursuant to this Agreement.

J. Volunteer, Volunteer's grantees, lessees, sublessees, successors, and assigns shall be bound by this Agreement. Any change in ownership of Volunteer including, but not limited to, any transfer of assets or real or personal property, shall in no way alter Volunteer's responsibilities under this Agreement.

K. All activities undertaken by Volunteer pursuant to this Agreement shall be performed in accordance with the requirements of all applicable Federal and State laws, regulations, and guidance documents.

L. Unless otherwise expressly provided herein, terms used in this Agreement which are defined in ECL Article 27, Title 13 or in regulations promulgated under such statute shall have the meaning assigned to them under said statute or regulations. Whenever terms listed in the Glossary attached hereto are used in this Agreement or in the attached Exhibits, the definitions set forth in the Glossary shall apply. In the event of a conflict, the definition set forth in the Glossary shall control.

M. Volunteer's obligations under this Agreement represent payment for or reimbursement of response costs, and shall not be deemed to constitute any type of fine or penalty.

N. This Agreement may be executed for the convenience of the parties hereto, individually or in combination, in one or more counterparts, each of which shall be deemed to have the status of an executed original and all of which shall together constitute one and the same.

O. Volunteer and Volunteer's employees, servants, agents, lessees, sublessees, grantees, successors, and assigns hereby waive any right to pursue reimbursement of monies expended by Volunteer prior to the Termination Date as against the State or the Spill Fund, and agree to indemnify and hold harmless the Spill Fund from any and all legal or equitable claims, suits, causes of action, or demands whatsoever with respect to the Site that any of same has or may have as a result of Volunteer's entering into or fulfilling the terms of this Agreement with respect to the Site.

P. The effective date of this Agreement is the 10th Day after the date it is signed by the Commissioner or the Commissioner's designee.

DATED: 2002

ERIN M. CROTTY, COMMISSIONER
NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

By:

Susan I. Taluto
Deputy Commissioner
Water Quality and Environmental Remediation

CONSENT BY VOLUNTEER

Volunteer hereby consents to the issuing and entering of this Agreement, waives Volunteer's right to a hearing herein as provided by law, and agrees to be bound by this Agreement.

Rexam, Inc.

By: Frank C Brown

Title: PRESIDENT

Date: May 6, 2002

NORTH CAROLINA
STATE OF ~~NEW YORK~~)
) ss:
COUNTY OF MECKLENBURG)

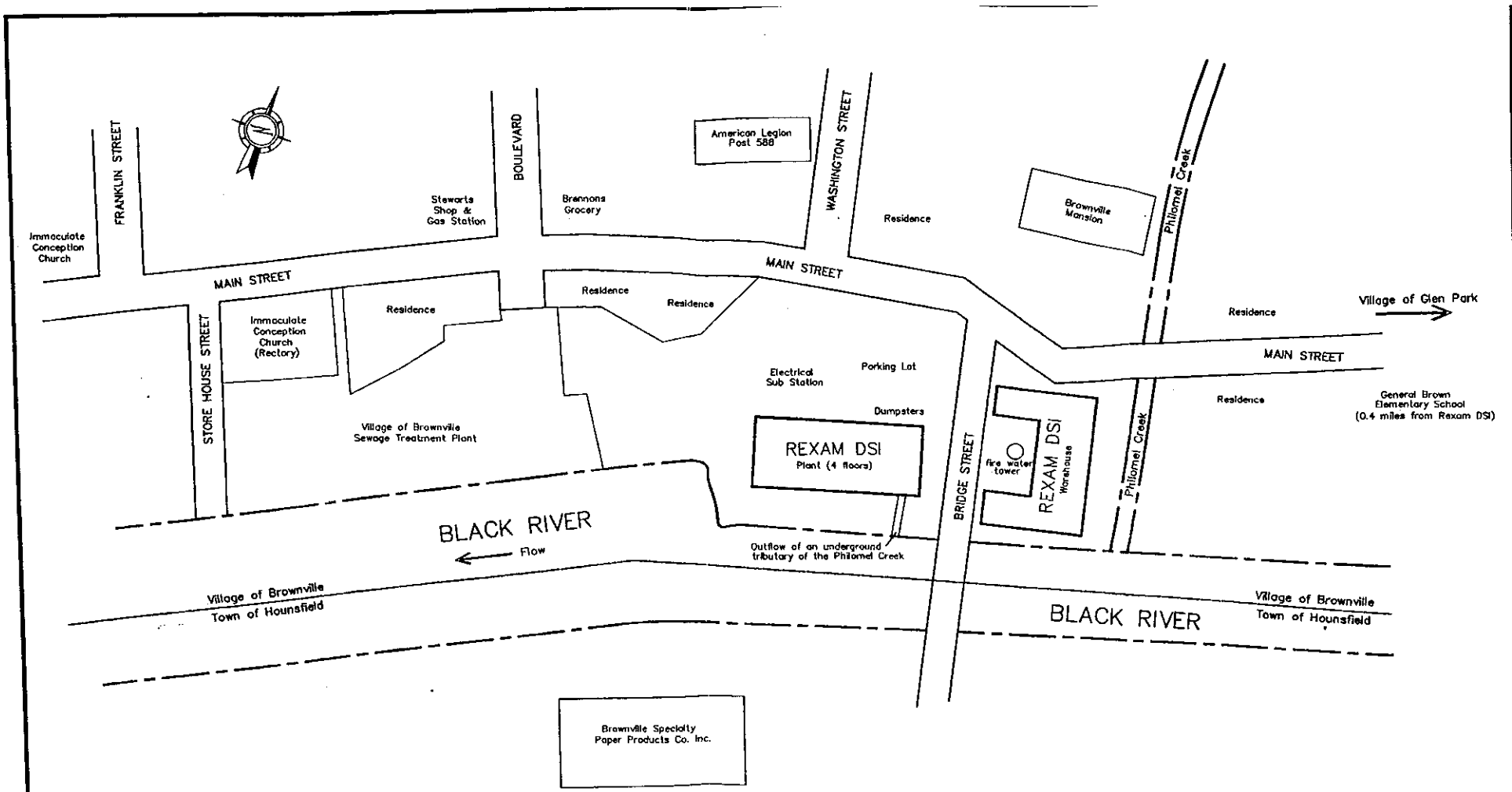
On the 6th day of May, in the year 2002, before me, the undersigned, personally appeared FRANK C BROWN personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Marsha B. McMurray, Notary Public
Signature and Office of individual
taking acknowledgment

My commission expires: 12-8-06

EXHIBIT "A"

Map of Site



NEIGHBORHOOD AREA MAP

Envision Environmental, Inc.
21 Priscilla Lane, Ho NJ 07731
Phone: 732-886-1664 732-886-2925

REXAM DSI

BROWNVILLE, N.Y.

Revisions:

Project No.

Date: 09/22/00

Scale: As Shown

Drawing No.

FIGURE 3

EXHIBIT "B"

Department-Approved Work Plan(s)

EXHIBIT "C"

Release and Covenant Not to Sue

Unless otherwise specified in this letter, all terms used in this letter shall have the meaning assigned to them under the terms of the Voluntary Cleanup Agreement entered into between the New York State Department of Environmental Conservation (the "Department") and_____ ("Volunteer"), Index No._____ (the "Agreement").

The Department is pleased to report that the Department is satisfied that the Agreement's Work Plan(s) relative to the Site, located at_____ _____has been successfully implemented.

The Department therefore, hereby releases and covenants not to sue, and shall forbear from bringing any action, proceeding, or suit pursuant to the Environmental Conservation Law, the NL or the State Finance Law, and from referring to the Attorney General any claim for recovery of costs incurred by the Department, against Volunteer and Volunteer's lessees and sublessees, grantees, successors, and assigns, and their respective secured creditors, for the further investigation and remediation of the Site, based upon the release or threatened release of Covered Contamination, provided that (a) timely payments of the amounts specified in Paragraph VI of the Agreement continue to be or have been made to the Department, (b) appropriate deed restrictions remain recorded in accordance with Paragraph X of the Agreement, and (c) Volunteer and/or its' lessees, sublessees, successors, or assigns promptly commence and diligently pursue to completion the Work Plan providing for OM&M, if any. Nonetheless, the Department hereby reserves all of its rights concerning, and such release and covenant not to sue shall not extend to natural resource damages or to any further investigation or remedial action the Department deems necessary:

- due to migration off-Site of contaminants resulting in impacts that are not inconsequential to environmental resources, to human health, or to other biota and to off-Site migration of petroleum;

- due to environmental conditions or information related to the Site which were unknown at the time this Release and Covenant Not to Sue was issued and which indicate that the Contemplated Use cannot be implemented with sufficient protection of human health and the environment;

- due to Volunteer's failure to implement the Agreement to the Department's satisfaction; or

- due to fraud committed by Volunteer in entering into or implementing this Agreement.

Additionally, the Department hereby reserves all of its rights concerning, and any such release and covenant not to sue shall not extend to Volunteer nor to any of Volunteer's lessees, sublessees, successors, or assigns who cause or allow a release or threat of release at the Site of any hazardous substance (as that term is defined at 42 USC 9601[14]) or petroleum (as that term is defined in Navigation Law § 172[15]), other than Covered Contamination; or cause or allow the use of the Site to change from the Contemplated Use to one requiring a lower level of residual contamination before that use can be implemented with sufficient protection of human health and the environment; nor to any of Volunteer's lessees, sublessees, successors, or assigns who are otherwise responsible under law for the remediation of the Existing Contamination independent of any obligation that party may have respecting same resulting solely from the Agreement's execution.

Notwithstanding the above, however, with respect to any claim or cause of action asserted by the Department, the one seeking the benefit of this release and covenant not to sue shall bear the burden of proving that the claim or cause of action, or any part thereof, is attributable solely to Covered Contamination.

Notwithstanding any other provision in this release, covenant not to sue, and forbearance,

- if with respect to the Site there exists or may exist a claim of any kind or nature on the part of the New York State Environmental Protection and Spill Compensation Fund against any party, nothing in this letter shall be construed or deemed to preclude the State of New York from recovering such claim.

- except as provided in this letter and in Agreement, nothing contained in the Agreement or in this letter shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights (including, but not limited to, the right to recover natural resources damages) with respect to any party, including Volunteer.

- nothing contained in this letter shall prejudice any rights of the Department to take any investigatory or remedial action it deems necessary if Volunteer fails to comply with the Agreement or if contamination other than Existing Contamination is encountered at the Site.

- nothing contained in this letter shall be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.

- nothing contained in this letter shall be construed to affect the Department's right to terminate the Agreement under the terms of the Agreement at any time during its implementation if Volunteer fails to comply substantially with the Agreement's terms and conditions.

In conclusion, the Department is pleased to be part of this effort to return the Site to productive use of benefit to the entire community.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

By:_____

Date: _____

Appendix "A"

(to Exhibit "C")

Map of the Site

Exhibit "D"

NOTICE OF AGREEMENT

This Notice is made as of the _____ day of _____, 200__ by _____regarding a parcel of real property located at_____ bearing Tax Map Number_____ (the "Property"); and

WHEREAS,_____("Volunteer"), entered into an agreement with the Department of Environmental Conservation, Index #_____ (the "Agreement"), concerning contamination which is or may be present on the Property, which Agreement was executed on behalf of the Department on _____; and

WHEREAS, in return for the remediation of the Property pursuant to the Agreement to the satisfaction of the Department, the Department will provide Volunteer and its lessees and sublessees, grantees, successors, and assigns, including their respective secured creditors, with a release, covenant not to sue, and forbearance from bringing any action, proceeding, or suit related to the Site's further investigation or remediation, subject to certain reservations set forth in the Agreement; and

WHEREAS, pursuant to the Agreement, Volunteer agreed to cause the filing of a notice of the Agreement with the_____ County Clerk in accordance with Paragraph IX of the Agreement to give all parties who may acquire any interest in the Property notice of the Agreement.

NOW, THEREFORE, Volunteer, for itself and for its successors and assigns, declares that:

1. This Notice of Agreement is hereby given to all parties who may acquire any interest in the Property; and

2. This Notice shall terminate upon the filing of a Notice of Termination of this Agreement after having first received approval to do so from the New York State Department of Environmental Conservation or having terminated the Agreement pursuant to its Paragraph XII.

IN WITNESS WHEREOF, Volunteer has executed this Notice of Agreement by its duly authorized representative.

Dated: By: _____

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the _____ day of _____, in the year 200__, before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Signature and Office of individual
taking acknowledgment

Appendix "A"

(to Exhibit "D")

Map of the Property

Exhibit "E"

DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT, made the __ day of _____ 200__, by_____ a **[natural person residing at_____/partnership organized and existing under the laws of the State of _____ / corporation organized and existing under the laws of the State of _____]**and having an office for the transaction of business at_____:

WHEREAS,_____ is the subject of a Voluntary Agreement executed by_____ as part of the New York State Department of Environmental Conservation's (the "Department's) Voluntary Cleanup Program, namely that parcel of real property located on _____ in the_____of_____, County of _____, State of New York, which is part of lands conveyed by_____ to _____ by deed dated_____ and recorded in the _____ County Clerk's Office on_____ in Book ____ of Deeds at Page ____ and being more particularly described in Appendix "A," attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW, THEREFORE,_____, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions, is as shown on a map attached to this declaration as Appendix "B" and made a part hereof, and consists of **[insert metes and bounds description]**

Second, unless prior written approval by the New York State Department of Environmental Conservation or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property, which threatens the integrity of the soil cap, or which results in unacceptable human exposure to contaminated soils.

Third, the owner of the Property shall maintain the cap covering the Property by maintaining its grass cover or, after obtaining the written approval of the Relevant Agency, by capping the Property with another material.

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for restricted industrial use without the express written waiver of such prohibition by the Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Relevant Agency.

Sixth, the owner of the Property shall continue in full force and effect any institutional and engineering controls required under the Agreement and maintain such controls unless the owner first obtains permission to discontinue such controls from the Relevant Agency.

Seventh, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner, and its successors and assigns, consents to enforcement by the Relevant Agency of the prohibitions and restrictions that Paragraph X of the Agreement requires to be recorded, and hereby covenants not to contest the authority of the Relevant Agency to seek enforcement.

Eighth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

[acknowledgment]

Glossary of Terms

The following terms shall have the following meanings:

"BPM Director": the Director of the Bureau of Program Management within the Division of Environmental Remediation.

"CERCLA": the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq.

"Covered Contamination": the concentrations of Existing Contamination remaining on the Site on the date that the Department issues the Release set forth in Exhibit "C."

"CPLR": the Civil Practice Law and Rules, as amended.

"Day": a calendar day unless expressly stated to be a working day. "Working Day" shall mean a day other than a Saturday, Sunday or State holiday. In computing any period of time under this Agreement, where the last day would fall on a Saturday, Sunday or State holiday, the period shall run until the close of business of the next working day.

"Department": the New York State Department of Environmental Conservation.

"Director": the Division Director, Division of Environmental Remediation.

"ECL": the Environmental Conservation Law, Chapter 43-B of the Consolidated Laws of New York, as amended.

"Force Majeure Event": an event which is brought on as a result of fire, lightning, earthquake, flood, adverse weather conditions, strike, shortages of labor and materials, war, riot, obstruction or interference by adjoining landowners, or any other fact or circumstance beyond Volunteer's reasonable control.

"Interim Remedial Measure" or "IRM": an interim remedial measure which is a discrete set of activities, including removal activities, to address both emergency and non-emergency Site conditions, which can be undertaken without extensive investigation or evaluation, to prevent, mitigate, or remedy environmental damage or the consequences of environmental damage attributable to a Site.

"NL": the Navigation Law, as amended.

"OH&M": the Office of Hearings and Mediation Services.

"OM&M": post-construction operation, maintenance, and monitoring; the last phase of a remedial program, which continues until the remedial action objectives for the Site are met.

"Professional Engineer": an individual registered as a professional engineer in accordance with Article 145 of the New York State Education Law. If such individual is a member of a firm, that firm must be authorized to offer professional engineering services in the State of New York in accordance with Article 145 of the New York State Education Law.

"Spill Fund": the New York State Environmental Protection and Spill Compensation Fund as established by Article 12, Part 3 of the NL.

"State Costs": all the State's response expenses related to the Site, including, but not limited to, direct labor, fringe benefits, indirect costs, travel, analytical costs, and contractor costs incurred by the State of New York for negotiating, implementing, overseeing, and administering this Agreement, and any other

response costs as defined under CERCLA. Approved agency fringe benefit and indirect cost rates will be applied.

"Termination Date": the date upon which (i) the Release (Exhibit "C") is issued or the Department approves the final report relative to the OM&M at the Site, whichever is later; or (ii) the Agreement terminates pursuant to Paragraph XII or is nullified pursuant to Subparagraph XIV.A.2.

"Trustee": the Trustee of New York State's natural resources.

"USEPA": the United States Environmental Protection Agency.

"Work Plan": a Department-approved work plan, as may be modified, pertaining to the Site, that Volunteer shall implement and that is attached to this Agreement.

ENVISION ENVIRONMENTAL, INC.

SITE INVESTIGATION WORK PLAN

of

FiberMark DSI, Inc.
(Formerly REXAM DSI INC.)
Bridge Street
Brownville, NY 13615

VCP Site No. V00525-6
Index No. B6-0610-02-03

for

REXAM INC.
Charlotte, North Carolina

Prepared by:

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ENVISION ENVIRONMENTAL, INC.
Howell, New Jersey

July 2002

ENVISION Project ID: 601.REX

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ENVISION
ENVIRONMENTAL, INC.

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ENVISION ENVIRONMENTAL, INC.

1.0 INTRODUCTION

This Site Investigation Workplan (SIW) was prepared by ENVISION ENVIRONMENTAL, INC. (ENVISION) on behalf of REXAM INC. (REXAM) for the former REXAM DSI INC. facility located at Bridge Street, Brownville, New York (Site). The Site is presently known as FiberMark DSI, Inc.

This facility was enrolled in the Voluntary Cleanup Program (VCP) by REXAM as a condition of the sale of the Site in 2001 to FiberMark, Inc. Copies of the following ENVISION reports were included with the VCP enrollment application submitted to the New York State Department of Environmental Conservation (NYSDEC) in 2002:

- August 2000 Phase I Environmental Site Assessment (ESA) Report
- December 2000 Phase II ESA Report

REXAM retained ENVISION in 2000 to conduct environmental due diligence assessments in preparation for the sale of the Brownville, NY facility. The August 2000 report documents an ASTM Phase I ESA conducted in June 2000. During this Phase I, a number of Recognized Environmental Conditions (RECs) were identified. These RECs were investigated as part of a Phase II ESA conducted in October 2000. The purpose of the Phase II ESA was to determine the potential environmental impact from the RECs identified during the Phase I ESA. The results of the Phase II ESA were documented in the December 2000 report.

As part of the VCP process, ENVISION and representatives of the NYSDEC, the New York State Department of Health (NYSDOH), and FiberMark DSI, Inc. conducted a meeting at the Site in June 2002. During this meeting, the results of the referenced ESAs were reviewed and possible future Site investigation activities were discussed.

This SIW has been structured to compliment Site-specific information already existing in the referenced ENVISION ESA Reports. The purpose of this SIW is to determine if there are conditions at the Site that may pose an unacceptable risk to human health or to the environment, and to address areas where contamination was detected during the ENVISION ESAs, with the ultimate intent of obtaining a no further action determination for soil and groundwater conditions identified by ENVISION at the facility. The investigation activities proposed are based on the results of the previous Phase I and Phase II ESAs and on the June 2002 NYSDEC/NYSDOH Site meeting. Additional Site-specific detail pertaining to the issues addressed in the SIW can be found in the referenced ENVISION ESA Reports.

2.0 SITE HISTORY AND DESCRIPTION

The former REXAM DSI INC. facility is located at Bridge Street, in the Village of Brownville, Jefferson County, New York. The Site is located on a rectangular tract of land that is approximately 3.8-acres in size on the north side of the Black River. Figure 1 illustrates the location of the Site, which is zoned Commercial/Industrial.

The Site is presently used for the production of latex-saturated paper, which is used for book covers and similar materials. The Site was constructed in 1814 and was initially used as a cotton/textile mill until the late 1800s. It was subsequently used as a paper mill until 1986 when current operations were initiated. The surrounding land uses are commercial, industrial, residential, and some agricultural. Figure 2 is a Site plan that also illustrates surrounding property usage.

The Site consists of two (2) buildings; the Main Plant and Paper Production Facility on the west side of Bridge Street, and the Warehouse on the east side of Bridge Street. The Main Plant is a four-story building with a total area of approximately 98,000-square feet of floor space. The floors are numbered 1 through 4, with the 4th floor being the lowest level of the facility. The Warehouse consists of approximately 2,000-square feet of floor space. A "disappearing" stream, Philomel Creek, is located east of the Warehouse. It reappears as a spring below the southeastern corner of the Site.

The Main Plant is built upon bedrock. The northern portion of the Site (north of the Main Plant) was historically at a lower elevation than the building and appeared to form a "bowl-like" depression. Water flumes and coal storage bunkers were located historically on this portion of the property. This area is currently used as a parking lot and is constructed from fill material consisting of construction debris from the demolished Court Street Bridge. The State of New York Department of Transportation (NYDOT), Watertown, NY, authorized the use of the construction debris as fill material. A letter dated May 13, 1993 from the NYDOT states that the fill material contains no contaminated material (hazardous waste, industrial waste, or petroleum products through a spill). Historic fill observed in this area generally consists of sand, gravel, ash, coal, cinders, concrete, wood, rebar, and metal. The thickness of this fill varies between approximately one (1) to twenty-three (23) feet. The topography of the area ranges from approximately 310-feet above mean sea level north of the Site to approximately 250-feet above mean sea level at river level. The ground slopes gently from east to west across the parking area on the north side of the facility, then steeply down to the river on the west and south sides of the facility. Some areas of the Site are unpaved.

The surficial geology of the area consists of glacial deposits, mainly gravelly sand, overlying bedrock. During the 2000 Phase II ESA at the Site, clayey organic silts were typically encountered below the fill. The bedrock, which is exposed in parts of the Site, consists of limestone which contains small-scale solution features along joints fractures and bedding planes. A dominant conjugate set of planar joints is present. Joints strike northwest and north-northeast. Their spacing is five (5) to ten (10) feet apart.

There are two (2) water-bearing zones on the Site. The first water-bearing zone is located in the native soil below the fill material. The second water-bearing zone is located within the bedrock. Based on water level measurements made during the 2000 Phase II ESA, these zones appear to be connected. The water table is approximately eight (8) feet below grade on the west side of the Site. Groundwater in bedrock was encountered approximately fifteen (15) feet below the base of the fill.

3.0 OBJECTIVES, SCOPE, AND RATIONALE

The objective of the proposed activities described in this SIW is to determine if there are conditions at the Site that may pose an unacceptable risk to human health or to the environment. To accomplish these goals ENVISION has evaluated the use of the Site and the surrounding area and developed a number of potential exposure pathways. As previously mentioned, ENVISION had completed comprehensive Phase I and Phase II ESAs in 2000. During the Phase I ESA, a number of RECs were identified, which were investigated as part of the Phase II ESA. The purpose of the Phase II ESA was to determine the potential environmental impact from the RECs identified during the Phase I ESA. The Phase I ESA identified eleven (11) RECs that required additional assessment. Of these eleven (11) RECs, nine (9) RECs required some form of sampling. The remaining two (2) RECs consisted of integrity verifications of floor trenches and sumps. As discussed during the June 2002 NYSDEC/NYSDOH Site meeting, the floor trenches and sumps issue is part of the Site's process operations and does not need to be addressed within this SIW. Details pertaining to the floor trenches and sumps can be found in the ENVISION December 2000 Phase II ESA Report. Please note: the sampling methodology utilized during the Phase II ESA included volatile organic compounds with a forward library search (VOC+15) via USEPA Method 8260; base neutral compounds with a forward library search (BN+15) via USEPA Method 8270; priority pollutant metals (PPM); and polychlorinated biphenyls (PCBs) via various methods under SW-846.

The following summarizes the Phase II ESA results for the REC conditions which will be further assessed as part of this SIW:

Main Plant Interior

2nd Floor:

- Former Oil Room – The former Oil Room is located in the northeast corner of this floor. Oil staining is present on the limestone bedrock wall in the area where oil drums were formerly stored. The staining may be part of an onsite historical issue caused by leaking gear boxes associated with the former water wheels used onsite decades ago. A composite rock chip sample (RC-1) was collected and analyzed for VOC+15, BN+15, and PCBs. No VOCs or PCBs were detected above TAGM generic soil cleanup objectives. PAHs typically associated with petroleum-based material (coal, coal ash, oil, asphalt, etc.) were reported greater than TAGM generic objectives. This limestone bedrock wall is part of the structure of the building and cannot be removed. See Figure 4 for sample location and Appendix 1 for sample results.

3rd Floor:

- Limestone Wall Oil Staining – Oil stains are present on the bedrock wall along the southeast side of this floor. According to facility personnel, this staining is a historical

issue from the former use of water wheels in this area of the building. The gearboxes associated with the former water wheels most likely leaked oil during the years of operation and resulted in staining of the wall. The use of these oils was discontinued years ago; there is no current source of oil leakage in this area of the building. A composite rock chip sample (RC-2) was collected and analyzed for VOC+15, BN+15, and PCBs. No BNs, VOCs or PCBs were detected above TAGM generic soil cleanup objectives. Elevated BN tentatively identified compounds (TICs) were detected. This limestone bedrock wall is part of the structure of the building and cannot be removed. See Figure 5 for sample location and Appendix 1 for sample results.

- AST Bunker – A second rock chip sample (RC-3) was collected from the north wall of the Aboveground Storage Tank (AST) Room (Bunker) at the northeast corner of this floor. This oil staining was reportedly from the 1992 No. 6 fuel oil release onsite. Samples were collected from a constructed limestone block wall forming the north wall of this room. Oil staining in this area was minor. The collected sample was analyzed for VOC+15, BN+15, and PCBs. No VOCs or PCBs were detected above TAGM generic objectives. PAHs typically associated with petroleum-based material (coal, coal ash, oil, asphalt, etc.) were reported greater than TAGM generic objectives. This wall is also part of the structure of the building and cannot be removed. See Figure 5 for sample location and Appendix 1 for sample results.

4th Floor:

- Limestone Wall Oil Staining – Wall staining by oil is present on the southeast wall of this floor. The stains are reportedly associated with the former water wheels discussed above. A composite rock chip sample (RC-4) was collected and analyzed for VOC+15, BN+15, and PCBs. No VOCs or PCBs were detected above TAGM generic soil cleanup objectives. PAHs typically associated with petroleum-based material (coal, coal ash, oil, asphalt, etc.) were reported greater than TAGM generic objectives. This limestone bedrock wall is part of the structure of the building and cannot be removed. See Figure 6 for sample location and Appendix 1 for sample results.

Warehouse Exterior

- Discharge Point of Former Floor Drain – A floor drain reportedly existed in the Warehouse located east of Bridge Street. This drain reportedly discharged into Philomel Creek. A soil sample (EB-6) was collected below the former discharge point of floor drain and analyzed for VOC+15 and BN+15. No VOCs or BNs were reported above TAGM generic soil cleanup objectives. Elevated BN TICs were reported. This area also receives stormwater sheet runoff from offsite (Main Street). See Figure 3 for sample location and Appendix 1 for sample results.

Main Plant Exterior

- Dumpster Area – Dumpsters are staged outside of the northeast corner of the Site. Latex and dye-coated paper scrap and scrap metal are disposed of in them. A stormwater catchbasin was reportedly located next to these dumpsters at one time. A soil sample (EB-1) was collected below a crack in the concrete pad on which the dumpsters are staged and analyzed for VOC+15, BN+15 and PPM. No VOCs or BNs were reported above the TAGM generic soil cleanup objectives. PPM (As, Be, Ni) were reported above TAGM generic soil cleanup objectives. This boring contained coal ash, cinders etc. to 16-feet below grade. (See note on background conditions). A catchbasin sediment sample (EB-2) was also collected from a nearby stormwater catchbasin and analyzed for VOC+15, BN+15 and PPM. No VOCs were reported above the TAGM generic soil cleanup objectives. One (1) PAH and PPMs (Be, Cr, Zn) were reported above TAGM generic objectives. This catchbasin receives stormwater sheet runoff from asphalt and the adjoining roadway (Bridge Street). See Figure 3 for sample location and Appendix 1 for sample results.

- Historic Fill – The parking lot north and west of the Main Plant is constructed on demolition debris used to raise the elevation of the area. This area formerly contained water flumes and coal storage bunkers, and was approximately 25-feet lower in elevation. In 1993, the NYSDOT filled in the area with construction debris. According to the NYSDOT, no contaminated material was used (hazardous waste, industrial waste, or petroleum products). Two (2) soil borings and a test pit were conducted in this area (EB-3, EB-4 and TPE-3). Soil samples collected were analyzed for VOC+15, BN+15, PPM and PCBs. Boring EB-3 was conducted to refusal on bedrock (24-feet below grade); EB-4 was conducted to approximately 17.5-feet below grade; and TPE-3 was excavated to approximately 12-feet below grade. Evidence of coal ash, cinders, and construction debris was detected in the sample locations. EB-3 was finished off as a temporary monitoring well (PZ-1), no groundwater entered the well. No VOCs or PCBs were reported above the TAGM generic objectives in the soil samples collected from EB-3, EB-4 and TPE-3. PAHs and metals generally associated with coal, ash, cinders, etc. were detected above the TAGM generic soil cleanup objectives in these samples. See Figure 3 for sample locations and Appendix 1 for sample results.

- Former No. 6 Fuel Oil Spill/Former Water Flume Area – A spill of No. 6 fuel oil occurred in 1992 as a result of a pipe leak on the north side of the Main Plant. As part of a remedial action conducted in 1992/93 to address this oil release, soil was excavated, three (3) test pits were advanced, and a monitoring well (MW-1; 75-feet deep) was installed on the north side of the building. Although NYSDEC issued a No Further Action letter for this release, documentation on the post-excavation sample conditions was not available. A stormwater drainage pipe is bedded in an old water flume on the northwest side of the Site. This flume may have received oil from the fuel oil spill that occurred in 1992. As part of the ENVISION Phase II ESA, the bedding material around the stormwater pipe was inspected by excavating trenches

and collecting soil samples. No visual evidence of released oil was observed. Two (2) soil samples (TPE-1 and TPE-2) were collected and analyzed for VOC+15 and BN+15. No VOCs were detected above TAGM generic objectives. PAHs typically associated with petroleum-based material (coal, coal ash, oil, asphalt, etc. from historic fill onsite) were reported greater than TAGM generic objectives. A soil sample (EB-4) collected near the 1992 release area was analyzed for VOC+15, BN+15, PPM and PCBs. MW-1 was also sampled and analyzed for VOC+15, BN+15 and PPM. No exceedances above the respective groundwater quality criteria were detected in the groundwater sample. Only PAHs and metals generally associated with coal, ash, cinders, etc. were detected above the TAGM generic soil cleanup objectives in EB-4. It appears that the 1992 fuel oil release was appropriately addressed. No visual or olfactory evidence of oil was noted. See Figure 3 for sample locations and Appendix 1 for sample results.

- Wastewater Pipeline – An aboveground pipeline conveys wastewater from the Site to the adjoining Brownville Wastewater Treatment Plant. In the past, the pipeline at times overflowed onto the underlying pavement. A soil sample (EB-5) was collected below the cracked portion of the pavement and analyzed for VOC+15 and BN+15. No VOCs were reported above the TAGM generic objectives. PAHs typically associated with petroleum-based material (coal, coal ash, oil, asphalt, etc.) were reported greater than TAGM generic objectives. This boring was completed as a temporary monitoring well (PZ-2). The groundwater sample from the well was analyzed for VOC+15, BN+15 and PPM. No VOC or BN compounds were detected. A concentration of lead was reported to exceed the NYSDEC Water Quality Standard. See Figure 3 for sample location and Appendix 1 for sample results.

As noted above, soil, bedrock wall chips, and groundwater samples were recovered during the Phase II ESA. The results showed limited areas of contamination. Volatile organic contaminants and PCBs were eliminated as potential compounds of concern throughout the Site. Several soil samples contained elevated levels of various polycyclic aromatic hydrocarbons (PAHs) and priority pollutant metals (PPMs) most likely associated with fill materials used at the Site. One (1) groundwater sample recovered from temporary piezometer well PZ-2 contained lead above the NYSDEC Water Quality Standard.

The following reviews the proposed SIW activities to be conducted to compliment existing data, so that a determination can be made if there are conditions at the Site that may pose an unacceptable risk to human health and the environment.

Exposure Assessment:

The sources of contaminants are: soils containing various PPM and PAHs; and shallow groundwater contaminated by lead above the NYSDEC Water Quality Standard as documented in the Phase II ESA. Based on the contaminants of concern, the topography and physical layout of the Site, and the use of the Site there are only three (3) routes of exposure that remain to be considered at the Site. These include: direct exposure to surface soils possibly containing

PAHs and PPM; shallow groundwater discharging into the river; and use of deep groundwater as a source of potable water. The nature and size of the population that could potentially be exposed is dependent upon the route of exposure. Direct exposure to surface soils containing PAHs and PPM would most likely be limited to workers onsite via ingestion or inhalation. This would consist of adults and be limited typically to Site employees. Exposure via groundwater discharging into the river or through use of deep groundwater as a source of potable water could potentially result in exposure of a larger population of adults and children. The scope of work for this SIW has been developed to determine if the contaminant concentration in each media of concern is high enough to pose a potential risk to human health and the environment.

The oil staining of the bedrock walls are a historical concern onsite, which were caused by operations that ceased decades ago. Since the stained walls are part of the onsite building structure, the walls cannot be removed. Measures will be taken to clean the interior walls and limit potential contact with the walls.

Future Use of the Site:

The Site will remain a paper mill (commercial/industrial site) for the foreseeable future. There is limited access to the Site. No one is permitted access to the Site except for the workers at the Site and contractors hired by the Site. There may be occasional trespassers, but they are expected to be infrequent.

Scope of Work:

Table 1 summarizes the sampling to be conducted as part of this SIW. The locations of the proposed samples are illustrated on Figure 3. This figure also shows the locations of all samples collected during the ENVISION 2000 Phase II ESA.

Soil Sampling: Fourteen (14) surface soil samples (SB-1 through SB-14) will be recovered to help evaluate the potential risk associated with direct contact with the soil. In addition, one (1) boring, SB-13, will also have a sample collected from 1.5 to 2-feet below grade, to delineate the elevated concentration of BN TICs detected in sample EB-6. The surface sample to be collected from Boring SB-14 (upgradient of SB-13) is to assess any offsite impact from stormwater sheet flow to the area of SB-13. The location of each sample is shown on the Site Plan, Figure 3. Each surface sample will be recovered from the interval of 0 to 6-inches below grade. Samples to be collected on the northern side of the Main Plant within the parking area will be biased toward areas with limited surface covering of stone and/or concrete. However, if surface covering is present in areas needing sampling, samples will be collected from the 0 – 6-inches depth interval below the stone and/or concrete surface covering. One (1) location will be selected to recover a duplicate sample. Each sample will be analyzed for PAHs via USEPA Method 8270B and for PPM using the applicable USEPA methodologies. Samples from borings SB-13 and SB-14 will be analyzed for BN compounds including analysis of TICs via USEPA Method 8270B. All borings will be abandoned by filling with bentonite and patched with the appropriate surfacing material.

Monitoring Wells and Groundwater Samples: One (1) shallow (MW-101) and three (3) bedrock wells (MW-201 – MW-203) will be installed at the Site. The location of the wells is shown on Figure 3. After developing the wells and purging groundwater from the wells, a groundwater sample will be recovered from each well. The groundwater sample from the shallow monitoring well will be analyzed for lead using USEPA Method 6010B. This data will be used to evaluate the possibility that the slightly elevated lead concentration (75.2 µg/l) previously obtained from temporary monitoring well PZ-2 was the result of suspended particles in the sample recovered during the Phase II ESA. The use of a proper monitoring well and the slow purge technique proposed in the Field Activities Plan (see below) will provide a more representative sample of the groundwater and should indicate if lead is a concern. The groundwater samples collected from the bedrock wells (including the existing well MW-1) will be analyzed for the presence of PAHs using USEPA Method 8270B and for PPM using appropriate USEPA methodologies. These data will be used to evaluate potential impact to groundwater encountered in bedrock.

Cleaning Oil Staining from the Rock Walls: As discussed above, the oil staining on the bedrock walls is an historical issue. Since the bedrock walls cannot be removed, the walls will be cleaned by power washing. A containment area will be set-up near the walls to be cleaned in order to capture the rinsate. The rinsate will be collected and contained in D.O.T. approved steel 55-gallon drums. This material will be sampled for disposal classification and will be disposed of properly offsite. After cleaning, the walls will be sealed or appropriately barricaded to limit exposure to the walls.

4.0 FIELD ACTIVITIES PLAN

Soil Sampling Methodology:

Soil samples will be recovered using a decontaminated stainless steel hand auger. The total depth of each boring will be no greater than 6-inches below grade with the exception of SB-13, which will be installed to 2-feet below grade. The soil recovered from the hand auger will be transferred into a decontaminated stainless steel sampling bowl where the sample will be mixed, and stones and debris removed. The soil will then be placed in the proper laboratory supplied sample jars, labeled, placed in the sample cooler (which will be cooled to 4 degrees Celsius), and transported to the laboratory under proper chain of custody procedure for analysis.

Shallow Groundwater Monitoring Well Installation:

A hollow stem auger rig will be used to advance a nominal 6-inch diameter boring to approximately 8-feet below the top of the water table. Continuous split spoons samples will be recovered and the lithology recorded. An ENVISION field geologist will select the top of water table and total depth of the boring based on the samples recovered from the split spoons. When the boring is complete, a 10-feet long section of 4-inch diameter PVC well screen with 0.020-inch slots will be lowered into the well. Sufficient PVC riser will be used to extend the well above grade. No. 2 sand will be poured into the annular spacing until the top of the sand is 1-foot above the top of the screen. Sufficient bentonite will be added to provide a 2-foot seal above the sand. A neat cement grout will be used to fill the remaining annular space. A steel well head casing will be installed and a concrete collar poured to complete the well.

Bedrock Groundwater Monitoring Well Installation:

A nominal 10-inch diameter casing will be driven to the top of bedrock and the soil removed from the inside of the casing with a drill rig. An air rotary drill rig will be used to extend the boring to a depth equal to 10-feet below the top of bedrock and an 8-inch diameter surface casing will be grouted in place. The grout will be allowed to harden overnight before an air rotary rig will be repositioned at the well head to advance a 6-inch diameter borehole to the first water in the bedrock. The boring will be continued to 4-feet below the depth of intersecting the water. A 5-feet long section of 4-inch diameter PVC well screen with 0.020-inch slots will be lowered into the well. Sufficient PVC riser will be used to extend the well above grade. No. 2 sand will be poured into the annular spacing until the top of the sand is 1-foot above the top of the screen. Sufficient bentonite will be added to provide a 2-foot seal above the sand. A neat cement grout will be used to fill the remaining annular space. A steel well head casing will be installed and a concrete collar poured to complete the well.

Monitoring Well Sampling Procedures:

Following completion of the wells, each well will be developed for a half an hour, or until the recovered water runs clear of sediment, whichever occurs first. The wells will be allowed to

come to equilibrium with the water-bearing zone before sampling by allowing at least two (2) weeks to pass after developing the wells.

After the equilibration period, each well will be purged prior to sampling. A decontaminated submersible pump will be lowered into the well to a depth of 2-feet above the bottom of the well. The flow rate that the groundwater will be recovered will be regulated to minimize drawdown in the well. The flow rate is expected to be approximately 0.1 liters per minute. During purging, pH, dissolved oxygen, and temperature of the groundwater will be measured in a flow-through chamber, using a water quality meter that is calibrated before use in accordance with the manufacturer's instructions. Once the field parameters stabilize in the recovered water and at least three (3) volumes of water have been recovered from the well, a sample of the water will be recovered using a laboratory-decontaminated bailer attached to new nylon rope. The samples for metals will be field filtered using disposable filters and will be preserved per laboratory instructions. The laboratory supplied sample bottles will be labeled and placed into a laboratory supplied cooler (cooled to 4^0 C) for shipment under chain of custody to the laboratory.

All monitoring wells will be installed by a NY-licensed well driller. All groundwater generated from the development and purging of the monitoring wells will be containerized in D.O.T. approved 55-gallon steel drums. This material will be sampled for disposal classification and will be disposed of properly offsite.

Cleaning of the Petroleum Coated Rock Walls:

The bedrock walls will be cleaned by power washing using a steam cleaner. A containment area will be set-up near the walls to be cleaned in order to capture the rinsate. The rinsate will be collected using an industrial wet/dry vacuum cleaner and contained in D.O.T. approved 55-gallon steel drums. This material will be sampled for disposal classification and will be disposed of properly offsite. After cleaning, the walls will be sealed or appropriately barricaded to limit contact/exposure.

5.0 QA/QC PLAN

The following is a description of the quality control measures that will be taken to assure that the data that is developed as part of this Site investigation will be reproducible, accurate, and representative of the conditions at the Site. The quality assurance/quality control aspects are divided into three (3) areas: field sampling and decontamination; laboratory procedures; and data management, to cover the key aspects of a Site investigation. The ENVISION Project Manager will be Mark Roman; the ENVISION Quality Assurance Officer will be Abraham Platt; and the ENVISION field geologist will be John Weakliem. The resumes for these key project personnel are attached as Appendix 2.

To assure that the samples recovered in the field are representative of the soil and groundwater at the Site, ENVISION will follow the procedures outlined below and in Section 4.0. The location of each soil sample and monitoring well will be confirmed by referencing the field location to existing structures and recorded on the Site Plan. In addition, the location of all samples will be identified via GPS. All soil samples will be recovered using decontaminated stainless steel sampling equipment. The hand augers, sampling bowl, and spatulas will be decontaminated by washing them in Alconox and water, followed by a clean water rinse. The equipment will be allowed to air dry prior to use.

Groundwater wells will be constructed to comply with NYSDEC specifications. All well screens and risers will be decontaminated using a steam cleaner prior to use in the well. Threaded connections will be used to avoid the need for glue. Each well will be developed for a half an hour, or until the recovered water runs clear of sediment, which ever is greater. The wells will be sampled after a minimum of two (2) weeks has passed since they were installed and developed. This will allow the aquifer to return to equilibrium following the well installation and development.

Each well will be purged prior to sampling. A decontaminated submersible pump will be lowered into the well to a depth of 2-feet from the bottom of the well. The flow rate of the recovered groundwater will be regulated to minimize draw down in the well. The flow rate will be approximately 0.1 liters per minute. The pH, dissolved oxygen, and temperature of the groundwater will be measured in a flow through chamber. Once the field parameters stabilize in the recovered water and at least three (3) volumes of water have been recovered from the well, a sample of the water will be recovered using a laboratory-decontaminated bailer attached to new nylon rope. Samples collected for analysis for dissolved metals will be field filtered using disposable filters.

Table 1 summarizes the sampling to be conducted as part of this SIW. The locations of the proposed samples are illustrated on Figure 3. This figure also shows the locations of all samples collected during the ENVISION 2000 Phase II ESA.

All samples will be placed in laboratory supplied clean glassware with the preservative required by the analytical method to be used. All samples will be placed in a cooler and shipped to the laboratory at a temperature at or near 4°C. A duplicate of one (1) soil sample and one (1) water

sample will be submitted to the laboratory for analysis along with the normal samples. A field blank will be recovered from each matrix for each ten (10) samples collected or one (1) blank per day of field activity, whichever is more frequent.

A New York State certified analytical laboratory (STL of Edison, New Jersey No. 11452) will be used to analyze the samples. The laboratory will submit the calibration information for each set of samples, along with spikes and duplicates as required by the methods. The laboratory will possess and follow an internal Quality Assurance Plan. Sample extraction procedures, initial and continuing calibrations, method blanks, matrix spikes and matrix spike duplicates will be conducted in accordance with the appropriate analytical method. Samples will be extracted and analyzed within the applicable holding times. The laboratory will provide a report listing the analytical results summary, any deviations or nonconformance with the methodologies, and all QA/QC data required by the VCP (ASP Category B). Data will be validated following Division of Remediation (DER) Data Usability Summary Report (DUSR) guidelines.

Finally, ENVISION provides rigorous internal quality control on the use and transcription of all data. Each table and map is reviewed against the laboratory reports by at least two (2) people. The reports will also be reviewed by at least two (2) people, as an additional quality control measure. Copies of boring logs, purge data, laboratory deliverables packages, and any other appropriate field documentation will be included as appendices in the report. All sample locations will be plotted on scaled drawings. The locations will be measured from permanent Site features and recorded via GPS to allow subsequent location of the sample points if it proves necessary.

6.0 HEALTH AND SAFETY PLAN

A Site-specific health and safety plan has been prepared and is included as Appendix 3. This health and safety plan will be followed by all ENVISION employees and its subcontractors.

7.0 REPORTING AND SCHEDULE

A proposed implementation schedule for the SIW activities is included as Appendix 4. If required by the NYSDEC, a fact sheet mailing will be submitted to adjacent property owners at least seven (7) days prior to the start of the proposed work. The fact sheet will include a summary of Site contaminants of concern and the activities being conducted under the SIW.

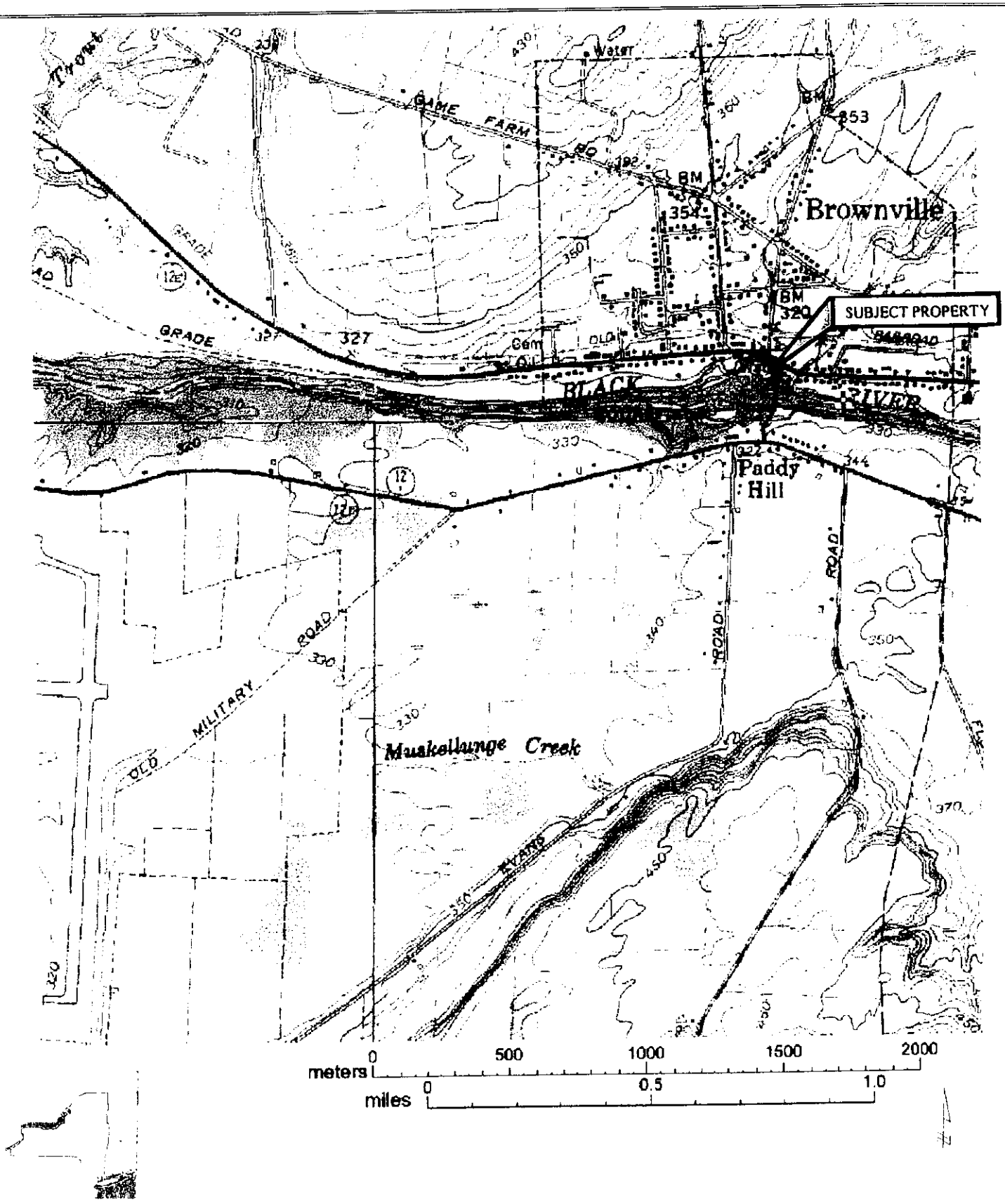
ENVISION will provide the NYSDEC with at least seven (7) days notice prior to commencement of any field activities.

Progress reports will be submitted to the NYSDEC by the 10th day of each month, commencing with the first month following the approval of this SIW.

Upon completion of the field activities, laboratory analysis, and evaluation of the data, an Investigation Final Report will be prepared and submitted to the NYSDEC. The report will include a description of the work performed, the data recovered, potential exposure pathways, and an evaluation of the potential risk associated with any compounds of concern. Data generated during ENVISION's Phase I and II ESAs will be utilized as part of this evaluation. The analytical data will be compared with appropriate NYSDEC standards for assistance in the evaluation of the risk. Site maps depicting the location of all sample points and a groundwater contour map will be provided. The groundwater contour map will be based upon surveyed data generated by a New York licensed surveyor. The report will also include a complete copy of the laboratory deliverables, boring logs, monitoring well purge forms, and a certification by the person with primary responsibility for conducting the SIW.

ENVISION
ENVIRONMENTAL, INC.

FIGURES



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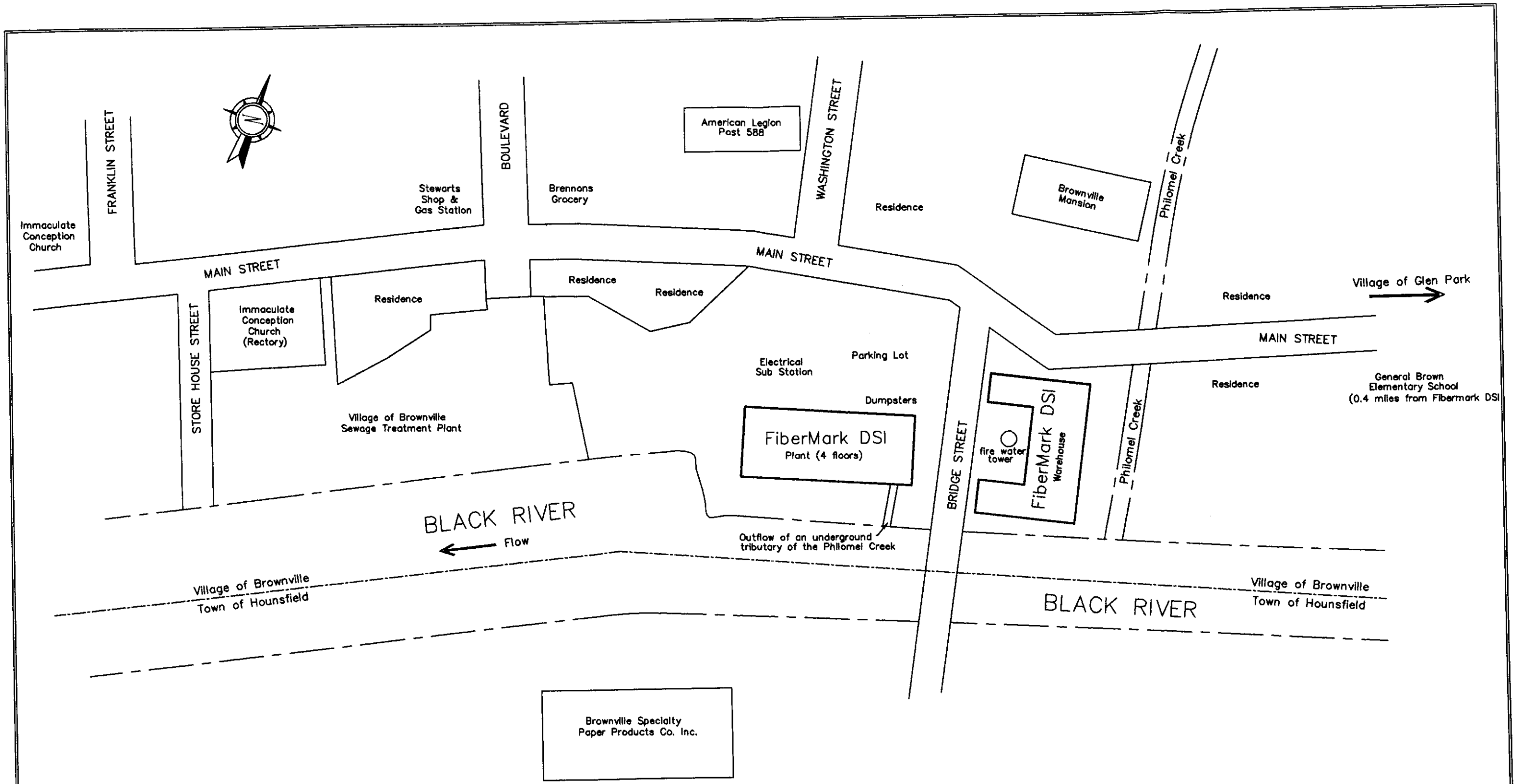
SITE LOCATION MAP
FIBERMARK DSI
Formerly REXAM DSI
BROWNVILLE, NEW YORK

Revisions:	Project No.
	1500.REX
	Date: 07/17/02
	Scale: As Shown
	Drawing No.
	FIGURE 1



NEIGHBORHOOD AREA MAP

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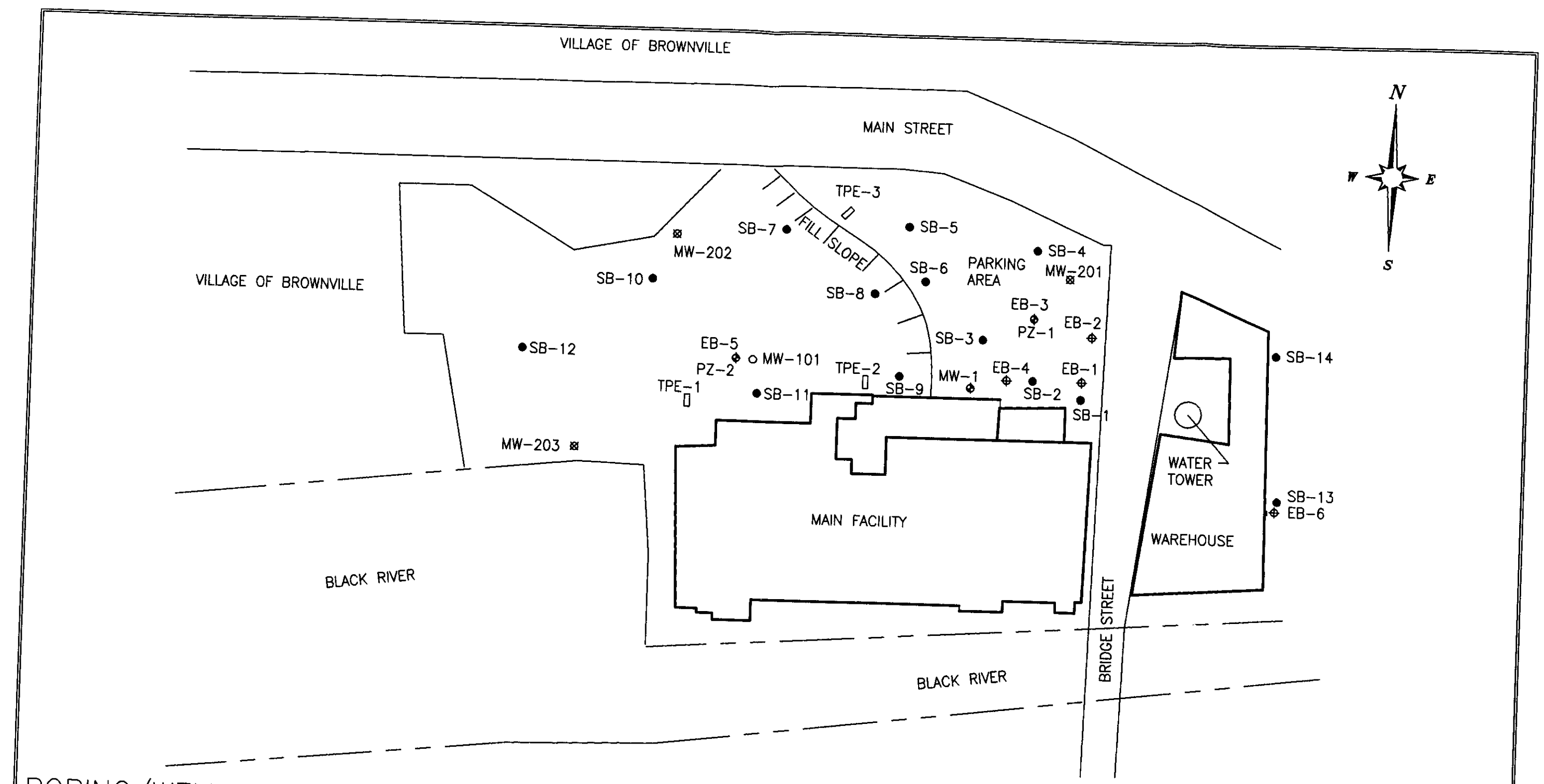
Revisions:

Project No. 1500.REX
Date: 07/15/02
Scale: As Shown
Drawing No. FIGURE 2



BORING/WELL LOCATION MAP

SOIL BORING, TEST PIT, AND GROUND-WATER WELL LOCATION MAP

- ⊕ EB-1 = SOIL SAMPLE LOCATION
- ▯ TPE-1 = TEST PIT LOCATION
- ⊕ PZ-1 & MW-1 = PIEZOMETER & MONITORING WELL LOCATION

PROPOSED BORING AND WELL LOCATIONS

- ● – PROPOSED SOIL BORING LOCATION
- ○ – PROPOSED SHALLOW GROUNDWATER MONITORING WELL
- ⊠ – PROPOSED BEDROCK MONITORING WELL

0 30 60 90 120
SCALE IN FEET

SITE PLAN

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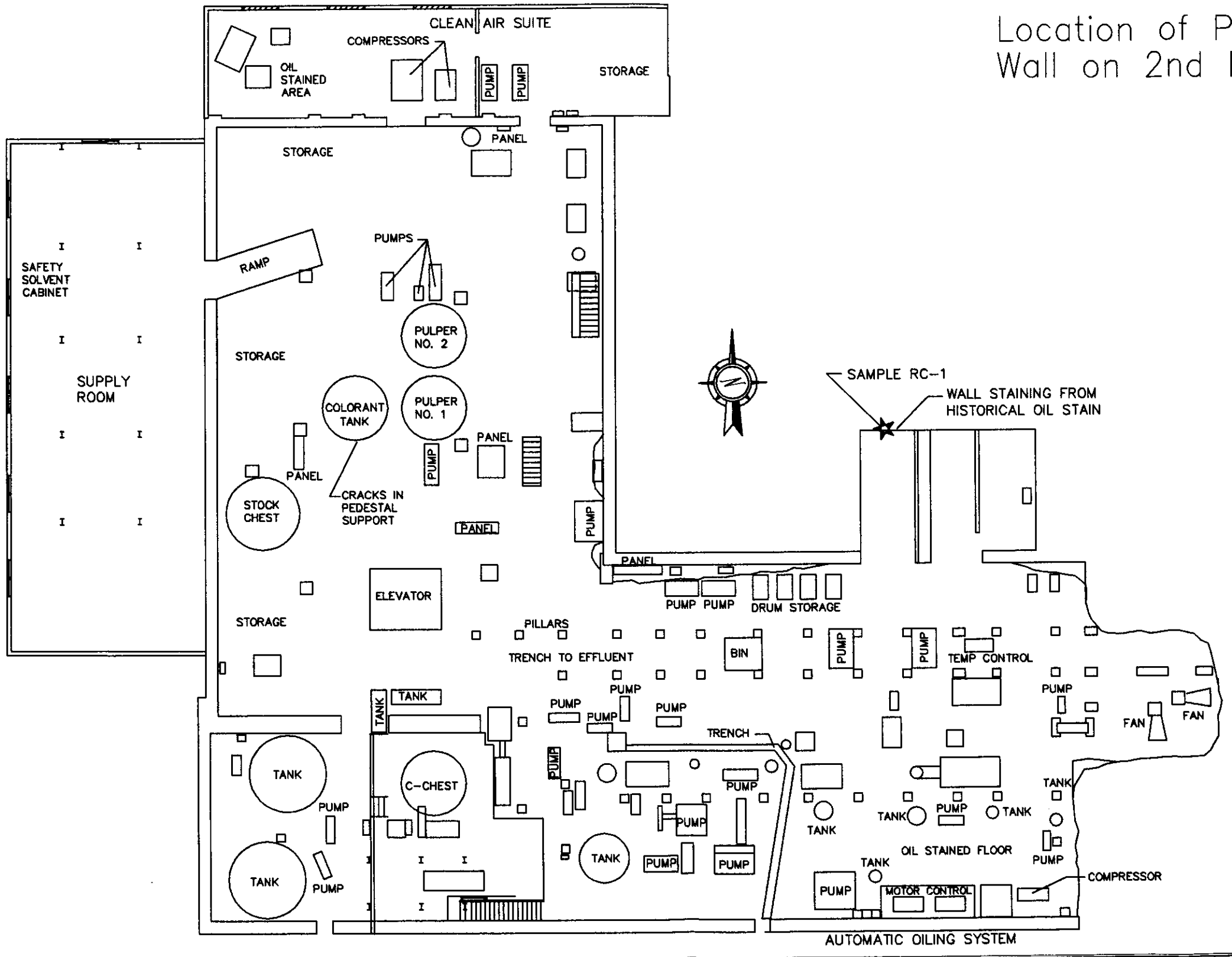
Drawing No. FIGURE 3

Location of Petroleum Stained Wall on 2nd Floor



SECOND FLOOR PLAN

SAMPLE LOCATION

☆ RC-1 = ROCK CHIP SAMPLE

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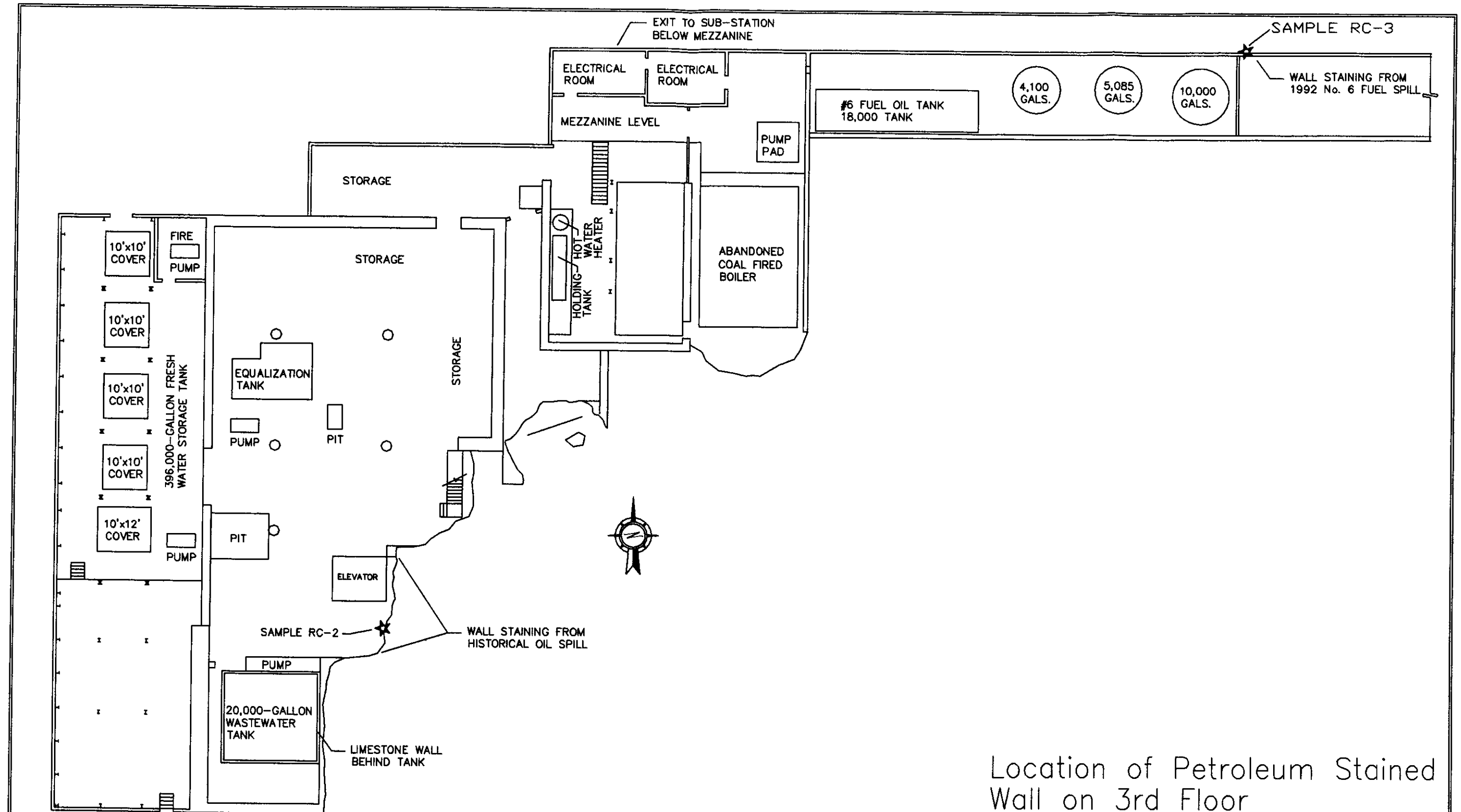
Date:	07/15/02
Scale:	As Shown
Drawing No.	FIGURE 4



Location of Petroleum Stained Wall on 3rd Floor

THIRD FLOOR PLAN
SAMPLE LOCATION
RC-1 = ROCK CHIP SAMPLE

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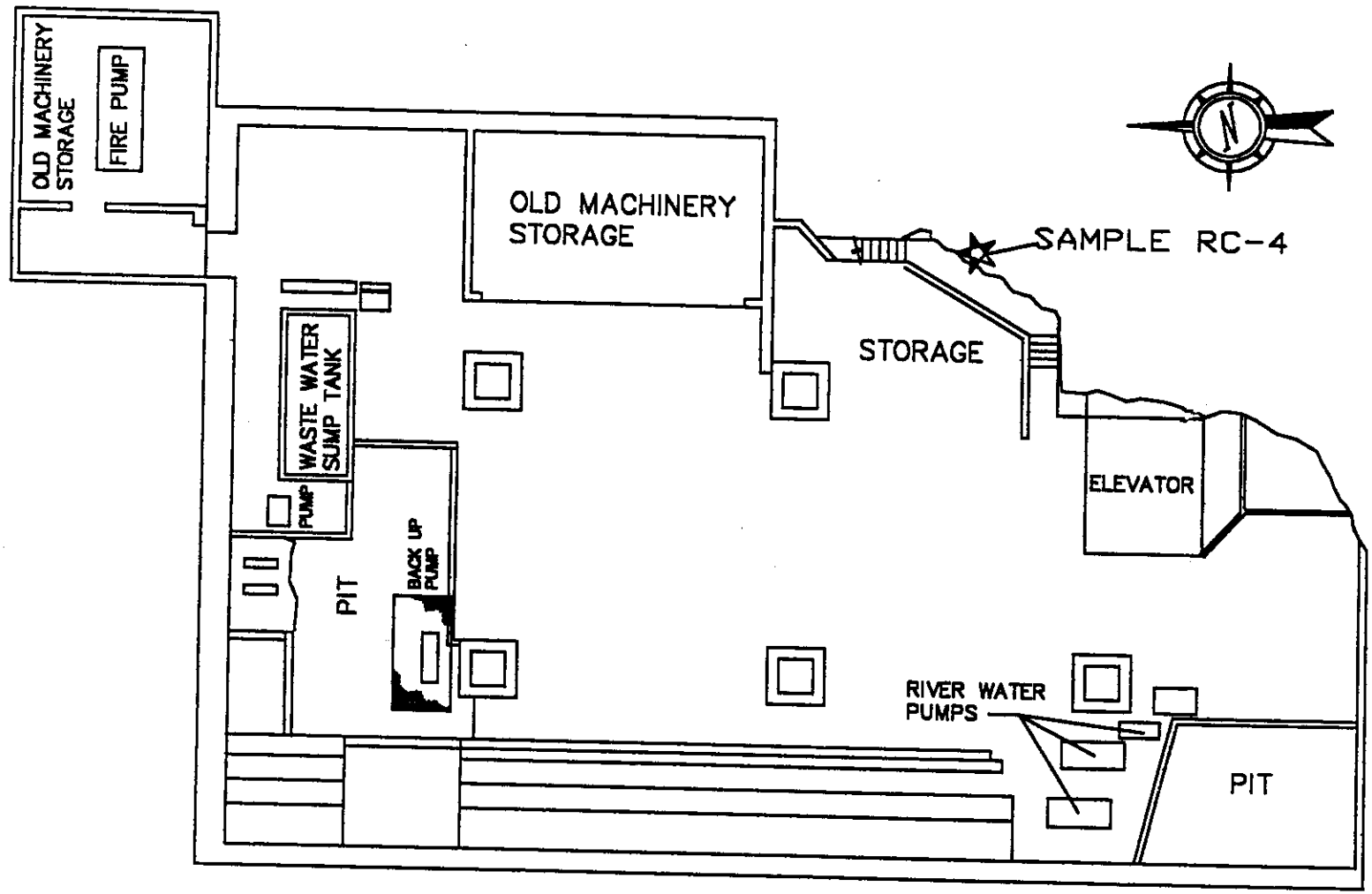
Revisions:

Project No. 1500.REX
Date: 07/15/02
Scale: As Shown
Drawing No. FIGURE 5



FOURTH FLOOR PLAN
SAMPLE LOCATION MAP
☆ RC-1 = ROCK CHIP SAMPLE

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Revisions:

Project No. 1500.REX
Date: 09/18/00
Scale: As Shown
Drawing No. FIGURE 6

TABLES

Table 1

Sample Summary Table
Former REXAM DSI
Brownville, New York

SAMPLES	MATRIX	DEPTH	PARAMETERS	METHOD	PURPOSE	REPORTING LEVEL
SB-1 through SB-12	Soil	0-6 inches	PPM	SW-846	Determine extent and degree of PPM and PAH impact in order to determine human health exposure risk	ASP Category B
			PAH	8270B		ASP Category B
SB-13	Soil	0-6 inches	BN+15	8270B	Re-evaluate BN TICS in EB-6	ASP Category B
SB-13	Soil	1.5-2 feet	BN+15	8270B	Delineate TICs in EB-6	ASP Category B
SB-14	Soil	0-6 inches	BN+15	8270B	Evaluate potential for impact from road at EB-6	ASP Category B
MW-101	Groundwater	Shallow	Lead	SW-846	Evaluate lead impact	ASP Category B
MW-201 through 203, and MW-1	Groundwater	Deep	PPM PAH	SW-846 8270B	Evaluate potential metals and PAH impact	ASP Category B

VCP Site No. V00525-6

ENVISION
ENVIRONMENTAL, INC.

APPENDIX 1

December 2000 Phase II ESA Sample Results Summary

TABLE 1

Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Lab Sample ID	Field Sample ID	Sample Depth (ft)	Sample Date	Matrix	Method	Parameters
237812	EB-1	0.5 -1.0	10/25/2000	SOLID	8260B	PPVOA+15
237812	EB-1	0.5 -1.0	10/25/2000	SOLID	8270C	PPBN+15
237812	EB-1	0.5 -1.0	10/25/2000	SOLID	SW-846	PP METALS
237813	EB-2 Catch Basin	0-0.1	10/25/2000	SOLID	8260B	PPVOA+15
237813	EB-2 Catch Basin	0-0.1	10/25/2000	SOLID	8270C	PPBN+15
237813	EB-2 Catch Basin	0-0.1	10/25/2000	SOLID	SW-846	PP METALS
237814	EB-3	16-16.5	10/25/2000	SOLID	8260B	PPVOA+15
237814	EB-3	16-16.5	10/25/2000	SOLID	8270C	PPBN+15
237814	EB-3	16-16.5	10/25/2000	SOLID	8082	PCBs
237814	EB-3	16-16.5	10/25/2000	SOLID	SW-846	PP METALS
237815	EB-4	1.5-2	10/25/2000	SOLID	8260B	PPVOA+15
237815	EB-4	1.5-2	10/25/2000	SOLID	8270C	PPBN+15
237815	EB-4	1.5-2	10/25/2000	SOLID	8082	PCBs
237815	EB-4	1.5-2	10/25/2000	SOLID	SW-846	PP METALS
237839	EB-4	16-16.5	10/25/2000	SOLID	8260B	PPVOA+15
237839	EB-4	16-16.5	10/25/2000	SOLID	8270C	PPBN+15
237839	EB-4	16-16.5	10/25/2000	SOLID	8082	PCBs
237839	EB-4	16-16.5	10/25/2000	SOLID	SW-846	PP METALS
237816	EB-5	1.2-1.7	10/25/2000	SOLID	8260B	PPVOA+15
237816	EB-5	1.2-1.7	10/25/2000	SOLID	8270C	PPBN+15
237817	EB-6 Outfall	0-0.5	10/25/2000	SOLID	8260B	PPVOA+15
237817	EB-6 Outfall	0-0.5	10/25/2000	SOLID	8270C	PPBN+15
237818	TPE-1	3-3.5	10/25/2000	SOLID	8260B	PPVOA+15
237818	TPE-1	3-3.5	10/25/2000	SOLID	8270C	PPBN+15
237819	TPE-2	4-4.5	10/25/2000	SOLID	8260B	PPVOA+15
237819	TPE-2	4-4.5	10/25/2000	SOLID	8270C	PPBN+15
237820	TPE-3	1.5-2	10/25/2000	SOLID	8260B	PPVOA+15
237820	TPE-3	1.5-2	10/25/2000	SOLID	8270C	PPBN+15
237820	TPE-3	1.5-2	10/25/2000	SOLID	8082	PCBs
237820	TPE-3	1.5-2	10/25/2000	SOLID	SW-846	PP METALS
237821	MW-1		10/25/2000	WATER	624	PPVOA+15
237821	MW-1		10/25/2000	WATER	625	PPBN+15
237821	MW-1		10/25/2000	WATER	200 SERIES	PP METALS
237822	PZ-2		10/25/2000	WATER	624	PPVOA+15
237822	PZ-2		10/25/2000	WATER	625	PPBN+15
237822	PZ-2		10/25/2000	WATER	200 SERIES	PP METALS
237823	Trip_Blank-1		10/24/2000	WATER	624	PPVOA+15
237824	Field_Blank-1025		10/25/2000	WATER	624	PPVOA+15
237824	Field_Blank-1025		10/25/2000	WATER	625	PPBN+15
237824	Field_Blank-1025		10/25/2000	WATER	200 SERIES	PP METALS
237825	RC-1_2nd_Floor	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237825	RC-1_2nd_Floor	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237825	RC-1_2nd_Floor	0-0.5	10/26/2000	SOLID	8082	PCBs
237826	RC-2_3rd_Floor	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237826	RC-2_3rd_Floor	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237826	RC-2_3rd_Floor	0-0.5	10/26/2000	SOLID	8082	PCBs
237827	RC-3_3rd_Floor	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237827	RC-3_3rd_Floor	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237827	RC-3_3rd_Floor	0-0.5	10/26/2000	SOLID	8082	PCBs
237828	RC-4_4th_Floor	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237828	RC-4_4th_Floor	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237828	RC-4_4th_Floor	0-0.5	10/26/2000	SOLID	8082	PCBs
237829	ES-1_Elev. Shaft_4th	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237829	ES-1_Elev. Shaft_4th	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237829	ES-1_Elev. Shaft_4th	0-0.5	10/26/2000	SOLID	8082	PCBs
237830	Trip_Blank-2		10/24/2000	WATER	624	PPVOA+15
237831	Field_Blank-1026		10/26/2000	WATER	624	PPVOA+15
237831	Field_Blank-1026		10/26/2000	WATER	625	PPBN+15
237831	Field_Blank-1026		10/26/2000	WATER	200 SERIES	PP METALS

T, 2
Volatile Organic Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	NYSDEC	NYSDEC	EB-1	EB-2	EB-3	EB-4	EB-4	EB-5	EB-6	TPE-1	TPE-2	TPE-3
Sample Depth (feet)	Recommended	Soil Cleanup	Groundwater	0.5-1	Catch Basin	16-16.5	1.5-2	16-16.5	1.2-1.7	0-0.5	3-3.5	4-4.5	1.5-2.0
Lab Sample Number	Soil	Objectives	Standards/	237812	237813	237814	237815	237839	237816	237817	237818	237819	237820
Sampling Date	Cleanup	to Protect	Criteria, Cw	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00
Matrix	Objectives	GW Quality		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Units	ppb or ug/Kg	ppb or ug/Kg	ppb or ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
VOCs Detected													
Methylene Chloride	100	100	5	0.8 J, B	ND (<3.3)	1.5 J, B	ND (<2.8)	ND (<2.9)	ND (<2.9)	2.5 J, B	ND (<3.2)	ND (<4.0)	ND (<2.8)
Trichlorofluoromethane	NS	NS	5	ND (<5.8)	ND (<5.5)	3.7 J	ND (<4.6)	ND (<4.8)	1.0 J	ND (<6.3)	ND (<5.3)	1.1 J	ND (<4.7)
Chlorofrom	300	300	7	ND (<5.8)	ND (<5.5)	ND (<6.5)	ND (<4.6)	ND (<4.8)	ND (<4.9)	ND (<6.3)	ND (<5.3)	ND (<6.7)	ND (<4.7)
trans-1,2-Dichloroethene	300	300	5	ND (<5.8)	ND (<5.5)	ND (<6.5)	ND (<4.6)	ND (<1.9)	ND (<4.9)	ND (<6.3)	ND (<5.3)	ND (<6.7)	ND (<4.7)
cis-1,2-Dichloroethene	NS	NS	5	ND (<5.8)	ND (<5.5)	ND (<6.5)	ND (<4.6)	ND (<4.8)	ND (<4.9)	ND (<6.3)	ND (<5.3)	ND (<6.7)	ND (<4.7)
Trichloroethene	700	700	5.0	ND (<1.2)	ND (<1.1)	ND (<1.3)	ND (<0.9)	ND (<1.0)	ND (<1.0)	ND (<1.2)	ND (<1.0)	ND (<1.3)	ND (<0.9)
Benzene	60	60	0.7	0.9 J	0.9 J	19	ND (<0.9)	0.6 J	ND (<1.0)	1.3	4.1	ND (<1.3)	0.6 J
Tetrachloroethene	1,400	1,400	5	ND (<1.2)	ND (<1.1)	ND (<1.3)	ND (<0.9)	ND (<1.0)	ND (<1.0)	ND (<1.2)	ND (<1.0)	ND (<1.3)	ND (<0.9)
Toluene	1,500	1,500	5	3.3 J	1.4 J	18	0.6 J	1.1 J	0.7 J	1.5 J	4.6 J	1.3 J	1.3 J
Ethylbenzene	5,500	5,500	5	ND (<4.7)	ND (<4.4)	1.8 J	ND (<3.7)	ND (<3.8)	ND (<3.9)	ND (<5.0)	0.5 J	ND (<5.4)	ND (<3.7)
Total Xylenes	1,200	1,200	5	3.6 J	0.6 J	31	ND (<4.6)	ND (<4.8)	ND (<4.9)	ND (<6.3)	1.3 J	ND (<6.7)	0.6 J
Total Detected VOCs	NA	NA	NA	7.8	2.9	75.0	0.6	1.7	1.7	5.3	10.5	2.4	2.5
VOC TICs Detected													
Unknown	NA	NA	NA	16						78	14		
Unknown Alkane	NA	NA	NA				6.8			8.8			
Unknown Alkene	NA	NA	NA							518			
Unknown Aromatic	NA	NA	NA			18.8							
Unknown Cycloalkane	NA	NA	NA										
Unknown Siloxane	NA	NA	NA	16									
Coeluting Unknows	NA	NA	NA										
Methyl Cyclohexane	NA	NA	NA	8.5									
Hexanal	NA	NA	NA		7.5	30					11		
Trimethylbenzene isomer	NA	NA	NA			49							
C5H12 Alkane	NA	NA	NA							17			
C11H24 Alkane	NA	NA	NA										
C12H26 Alkane	NA	NA	NA										
C13H28 Alkane	NA	NA	NA										
C5H10 Alkene	NA	NA	NA							20			
C10H14 Aromatic	NA	NA	NA			11							
C9H8 Aromatic	NA	NA	NA			15							

T. 2
Volatile Organic Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	NYSDEC	NYSDEC	EB-1	EB-2	EB-3	EB-4	EB-4	EB-5	EB-6	TPE-1	TPE-2	TPE-3
Sample Depth (feet)	Recommended	Soil Cleanup	Groundwater	0.5-1	Catch Basin	16-16.5	1.5-2	16-16.5	1.2-1.7	0-0.5	3-3.5	4-4.5	1.5-2.0
Lab Sample Number	Soil	Objectives	Standards/	237812	237813	237814	237815	237839	237816	237817	237818	237819	237820
Sampling Date	Cleanup	to Protect	Criteria, Cw	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00
Matrix	Objectives	GW Quality		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Units	ppb or ug/Kg	ppb or ug/Kg	ppb or ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
C11H22 Cycloalkane	NA	NA	NA										
C12H24 Cycloalkane	NA	NA	NA										
C5H100 Ketone	NA	NA	NA										
C8H160 Ketone	NA	NA	NA										
Nahpthalene	NA	NA	NA			280							
Tetrahydromethyl-naphthalene Isomers	NA	NA	NA										
Bezothiophene Isomer	NA	NA	NA			13							
Methylnaphthalene Isomer	NA	NA	NA			9.1							
Decahydronaphthalene Isomers	NA	NA	NA										
Idene Isomers	NA	NA	NA				5.1						
2-Propanone	NA	NA	NA							17			
2-Butanone	NA	NA	NA							9.7			
2-Hexanone	NA	NA	NA										
Acetic Acid, methyl ester	NA	NA	NA										
Butanal	NA	NA	NA										
Pentanal	NA	NA	NA										
Total VOC TICs	NA	NA	NA	40.5	7.5	425.9	11.9	ND	ND	668.5	25.0	ND	ND
Total VOCs	NA	NA	NA	48.3	10.4	500.9	12.5	1.7	1.7	674	35.5	2.4	2.5

TA 2
Volatile Organic Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	NYSDEC	NYSDEC	RC-1	RC-2	RC-3	RC-4	ES-1	MW-1	PZ-2	FIELD	FIELD	TRIP	TRIP
Sample Depth (feet)	Recommended	Soil Cleanup	Groundwater	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5			BLANK	BLANK	BLANK-1	BLANK-2
Lab Sample Number	Soil	Objectives	Standards/	237825	237826	237827	237828	237829	237821	237822	237824	237831	237823	237830
Sampling Date	Cleanup	to Protect	Criteria, Cw	10/26/00	10/25/00	10/26/00	10/26/00	10/26/00	10/25/00	10/25/00	10/25/00	10/26/00	10/24/00	10/24/00
Matrix	Objectives	GW Quality		SOLID	SOLID	SOLID	SOLID	SOLID	WATER	WATER	WATER	WATER	WATER	WATER
Units	ppb or ug/Kg	ppb or ug/Kg	ppb or ug/L	ug/Kg	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
VOCs Detected														
Methylene Chloride	100	100	5	ND (<2.8)	0.8 J, B	1.4 J, B	1.1 J, B	1.7 J, B	ND (<0.8)	ND (<0.8)	ND (<0.8)	**8.6**	ND (<0.8)	ND (<0.8)
Trichlorofluoromethane	NS	NS	5	ND (<4.6)	ND (<5.2)	5.9	ND (<5.0)	ND (<7.8)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Chlorofrom	300	300	7	ND (<4.6)	1.8 J	0.6 J	2.1 J	ND (<7.8)	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)
trans-1,2-Dichloroethene	300	300	5	ND (<4.6)	ND (<5.2)	ND (<5.0)	ND (<5.0)	2.3 J	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)
cis-1,2-Dichloroethene	NS	NS	5	ND (<4.6)	ND (<5.2)	ND (<5.0)	ND (<5.0)	7.6 J	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)
Trichloroethene	700	700	5.0	ND (<0.9)	0.8 J	ND (<1.0)	ND (<1.0)	8.4	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)
Benzene	60	60	0.7	ND (<0.9)	11	ND (<1.0)	1.6	3.2	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Tetrachloroethene	1,400	1,400	5	2.9	ND (<1.0)	ND (<1.0)	0.8 J	12	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Toluene	1,500	1,500	5	0.7 J	7.2	2.6 J	6.8	11	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Ethylbenzene	5,500	5,500	5	ND (<3.7)	ND (<4.2)	ND (<4.0)	ND (<4.0)	4.1 J	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Total Xylenes	1,200	1,200	5	ND (<4.6)	ND (<5.2)	ND (<5.0)	ND (<5.0)	11	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Total Detected VOCs	NA	NA	NA	3.6	21.6	10.5	12.4	61.3	ND	ND	ND	8.6	ND	ND
VOC TICs Detected														
Unknown	NA	NA	NA				78.3	490						
Unknown Alkane	NA	NA	NA			6.2	31							
Unknown Alkene	NA	NA	NA											
Unknown Aromatic	NA	NA	NA											
Unknown Cycloalkane	NA	NA	NA				21							
Unknown Siloxane	NA	NA	NA											
Coeluting Unknows	NA	NA	NA			14.4	29							
Methyl Cyclohexane	NA	NA	NA											
Hexanal	NA	NA	NA											
Trimethylbenzene isomer	NA	NA	NA											
C5H12 Alkane	NA	NA	NA											
C11H24 Alkane	NA	NA	NA					490						
C12H26 Alkane	NA	NA	NA					580						
C13H28 Alkane	NA	NA	NA					450						
C5H10 Alkene	NA	NA	NA											
C10H14 Aromatic	NA	NA	NA											
C9H8 Aromatic	NA	NA	NA											

TA 2
Volatile Organic Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	NYSDEC	NYSDEC	RC-1	RC-2	RC-3	RC-4	ES-1	MW-1	PZ-2	FIELD	FIELD	TRIP	TRIP
Sample Depth (feet)	Recommended	Soil Cleanup	Groundwater	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5			BLANK	BLANK	BLANK-1	BLANK-2
Lab Sample Number	Soil	Objectives	Standards/	237825	237826	237827	237828	237829	237821	237822	237824	237831	237823	237830
Sampling Date	Cleanup	to Protect	Criteria, Cw	10/26/00	10/25/00	10/26/00	10/26/00	10/26/00	10/25/00	10/25/00	10/25/00	10/26/00	10/24/00	10/24/00
Matrix	Objectives	GW Quality		SOLID	SOLID	SOLID	SOLID	SOLID	WATER	WATER	WATER	WATER	WATER	WATER
Units	ppb or ug/Kg	ppb or ug/Kg	ppb or ug/L	ug/Kg	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
C11H22 Cycloalkane	NA	NA	NA					840						
C12H24 Cycloalkane	NA	NA	NA					390						
C5H100 Ketone	NA	NA	NA		10									
C8H160 Ketone	NA	NA	NA		11									
Nahpthalene	NA	NA	NA			7.5								
Tetrahydromethyl-naphthalene Isomers	NA	NA	NA			15.8								
Bezothiophene Isomer	NA	NA	NA											
Methylnaphthalene Isomer	NA	NA	NA											
Decahydronaphthalene Isomers	NA	NA	NA				22	380						
Idene Isomers	NA	NA	NA			20.6								
2-Propanone	NA	NA	NA	5.4	36	5.4	42							
2-Butanone	NA	NA	NA		16		20							
2-Hexanone	NA	NA	NA		6.9									
Acetic Acid, methyl ester	NA	NA	NA		6.2									
Butanal	NA	NA	NA		8.3									
Pentanal	NA	NA	NA		6.2									
Total VOC TICs	NA	NA	NA	5.4	100.6	69.9	243.3	3620	ND	ND	ND	ND	ND	ND
Total VOCs	NA	NA	NA	9.0	122.2	80.4	255.7	3681	ND	ND	ND	9	ND	ND

Notes:

ppm = Parts Per Million = mg/Kg
ppb = Parts Per Billion = ug/L
Bolded = Compounds which exceed NYSDEC standards.
HWR-94-4046, 1/24/94 (TAGM 4046)
NA = Not Applicable.
ND = Not Detected.
ND(<) = Less than the Reporting Limit.
NS = No criteria listed in TAGM 4046 or NYSDEC Water Quality Standards.
J = Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified quantitation limit but greater than zero. The concentration given is an approximate value.
VOC = Volatile organic compounds via USEPA Method 8260B.
TIC = Tentatively identified compounds via USEPA Method 8260B.

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	EB-1 0.5-1 237812 10/25/00 SOLID ug/Kg	EB-2 Catch Basin 237813 10/25/00 SOLID ug/Kg	EB-3 16-16.5 237814 10/25/00 SOLID ug/Kg	EB-4 1.5-2 237815 10/25/00 SOLID ug/Kg	EB-4 16-16.5 237839 10/25/00 SOLID ug/Kg	EB-5 1.2-1.7 237816 10/25/00 SOLID ug/Kg
Detected SVOCs									
Naphthalene	13,000	13,000	10	ND (<390)	ND (<400)	2,300	71 J	16 J	15 J
Acenaphthylene	41,000	41,000	20	ND (<390)	12 J	850 J	290 J	33 J	39 J
Acenaphthene	50,000	90,000	20	ND (<390)	12 J	250 J	54 J	7.8 J	ND (<370)
Fluorene	50,000	350,000	50	ND (<390)	23 J	850 J	78 J	12 J	ND (<370)
N-Nitrosodiphenylamine	NS	NS	NS	ND (<390)	ND (<400)	ND (<2,200)	ND (<360)	ND (<360)	ND (<370)
Phenanthrene	50,000	220,000	50	63 J	160 J	12,000	1,000	110 J	78 J
Anthracene	50,000	700,000	50	ND (<390)	31 J	770 J	380	32 J	26 J
Di-n-butylphthalate	8,100	8,100	50	ND (<390)	95 J	ND (<2,200)	ND (<360)	ND (<360)	ND (<370)
Fluoranthene	50,000	1,900,000	50	42 J	350 J	12,000	2,500	190 J	290 J
Pyrene	50,000	665,000	50	43 J	360 J	9,200	2,600	230 J	350 J
Benzidine	NS	NS	5	ND (<600)	ND (<1,600)	ND (<8,700)	ND (<1,400)	ND (<1,400)	ND (<1,500)
Butylbenzylphthalate	50,000	122,000	50	ND (<390)	ND (<400)	ND (<2,200)	ND (<360)	ND (<360)	ND (<370)
3,3'-Dichlorobenzidine	NS	NS	5	ND (<80)	ND (<800)	ND (<4,300)	ND (<720)	ND (<720)	ND (<740)
Benzo(a)anthracene	224 or MDL	3,000	0.002	ND (<39)	160	**3,200**	**1,300**	120	**240**
Chrysene	400	400	0.002	70 J	300 J	**3,700**	**1,300**	160 J	180 J
bis(2-Ethylhexyl)phthalate	50,000	435,000	5	ND (<390)	450	ND (<2,200)	ND (<360)	80 J	ND (<370)
Di-n-octylphthalate	50,000	120,000	50	ND (<390)	280 J	ND (<2,200)	ND (<360)	ND (<360)	ND (<370)
Benzo(b)fluoranthene	1,100	1,100	0.002	30 J	380	**4,000**	**2,000**	180	220
Benzo(k)fluoranthene	1,100	1,100	0.002	ND (<39)	200	**1,700**	940	74	110
Benzo(a)pyrene	61 or MDL	11,000	MDL	8.8 J	**160**	**2,800**	**1,300**	**110**	**180**
ndeno(1,2,3-cd)pyrene	3,200	3,200	0.002	ND (<39)	68	1,300	490	39	74
Dibenz(a,h)anthracene	14 or MDL	165,000,000	50	ND (<39)	ND (<40)	**260**	**81**	ND (<36)	19 J
Benzo(g,h,i)perylene	50,000	800,000	5	8.9 J	69 J	1,400 J	370	31 J	88 J
Total Detected SVOCs				266	3,110	56,580	14,754	1,425	1,909

Table 3
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REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	EB-1 0.5-1 237812 10/25/00 SOLID ug/Kg	EB-2 Catch Basin 237813 10/25/00 SOLID ug/Kg	EB-3 16-16.5 237814 10/25/00 SOLID ug/Kg	EB-4 1.5-2 237815 10/25/00 SOLID ug/Kg	EB-4 16-16.5 237839 10/25/00 SOLID ug/Kg	EB-5 1.2-1.7 237816 10/25/00 SOLID ug/Kg
Detected SVOC TICs									
beta -Amyrin	NA	NA	NA		7,400				
C19H40 Alkane	NA	NA	NA						
C15H10/C15H12 PAHs	NA	NA	NA				310		
C16H14 PAH	NA	NA	NA	400					
C17H12 PAH	NA	NA	NA						
C17H16 PAH	NA	NA	NA						
C20H12 PAH	NA	NA	NA			2,600	2,660		
Unknown	NA	NA	NA		49,300	8,600	2,970	3,440	
Unknown Alkane	NA	NA	NA		55,500	28,500	1,190	3,500	
Unknown Alkane/Unknown	NA	NA	NA		14,000	3,800			
Unknown Sterol	NA	NA	NA			2,700			
Vitamin E	NA	NA	NA		11,000				
5-Pentyl-1,3-benzenediol	NA	NA	NA			2,300			
Total Detected SVOC TICs				400	137,200	48,500	7,130	6,940	ND
Total SVOCs & TICs				666	140,310	105,080	21,884	8,365	1,909

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	EB-6 0-0.5 237817 10/25/00 SOLID ug/Kg	TPE-1 3-3.5 237818 10/25/00 SOLID ug/Kg	TPE-2 4-4.5 237819 10/25/00 SOLID ug/Kg	TPE-3 1.5-2.0 237820 10/25/00 SOLID ug/Kg	RC-1 0-0.5 237825 10/26/00 SOLID ug/Kg	RC-2 0-0.5 237826 10/26/00 SOLID ug/Kg
Detected SVOCs									
Naphthalene	13,000	13,000	10	ND (<1,500)	53 J	ND (<460)	ND (<350)	ND (<1,700)	**ND (<43,000)**
Acenaphthylene	41,000	41,000	20	ND (<5,400)	69 J	ND (<460)	ND (<350)	ND (<1,700)	**ND (<43,000)**
Acenaphthene	50,000	90,000	20	ND (<5,400)	38 J	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
Fluorene	50,000	350,000	50	ND (<5,400)	72 J	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
N-Nitrosodiphenylamine	NS	NS	NS	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	190 J	ND (<43,000)
Phenanthrene	50,000	220,000	50	ND (<5,400)	800	54 J	ND (<350)	120 J	1,000 J
Anthracene	50,000	700,000	50	ND (<5,400)	100 J	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
Di-n-butylphthalate	8,100	8,100	50	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	ND (<1,700)	**ND (<43,000)**
Fluoranthene	50,000	1,900,000	50	ND (<5,400)	870	15 J	8.5 J	280 J	2,500 J
Pyrene	50,000	665,000	50	ND (<5,400)	700	17 J	12 J	420 J	5,400 J
Benzidine	NS	NS	5	ND (<22,000)	ND (<1,400)	ND (<1,800)	ND (<1,400)	ND (<6,700)	ND (<170,000)
Butylbenzylphthalate	50,000	122,000	50	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
3,3'-Dichlorobenzidine	NS	NS	5	ND (<11,000)	ND (<720)	ND (<920)	ND (<700)	ND (<3,300)	ND (<87,000)
Benzo(a)anthracene	224 or MDL	3,000	0.002	ND (<540)	**310**	ND (<46)	ND (<35)	180	ND (<4,300)
Chrysene	400	400	0.002	**ND (<5,400)**	350 J	40 J	8.3 J	**2,000**	**ND (<43,000)**
bis(2-Ethylhexyl)phthalate	50,000	435,000	5	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	980 J	ND (<43,000)
Di-n-octylphthalate	50,000	120,000	50	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	ND (<1,700)	15,000 J
Benzo(b)fluoranthene	1,100	1,100	0.002	ND (<540)	390	11 J	10 J	260	**ND (<4,300)**
Benzo(k)fluoranthene	1,100	1,100	0.002	ND (<540)	160	ND (<46)	ND (<35)	44 J	**ND (<4,300)**
Benzo(a)pyrene	61 or MDL	11,000	MDL	ND (<540)	**260**	ND (<46)	ND (<35)	**310**	ND (<4,300)
Indeno(1,2,3-cd)pyrene	3,200	3,200	0.002	ND (<540)	130	ND (<46)	ND (<35)	ND (<170)	**ND (<4,300)**
Dibenz(a,h)anthracene	14 or MDL	165,000,000	50	ND (<540)	22 J	ND (<46)	ND (<35)	ND (<170)	ND (<4,300)
Benzo(g,h,i)perylene	50,000	800,000	5	ND (<5,400)	160 J	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
Total Detected SVOCs				ND	4,484	137	38.8	4,784	23,900

Table 3
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Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	EB-6 0-0.5 237817 10/25/00 SOLID ug/Kg	TPE-1 3-3.5 237818 10/25/00 SOLID ug/Kg	TPE-2 4-4.5 237819 10/25/00 SOLID ug/Kg	TPE-3 1.5-2.0 237820 10/25/00 SOLID ug/Kg	RC-1 0-0.5 237825 10/26/00 SOLID ug/Kg	RC-2 0-0.5 237826 10/26/00 SOLID ug/Kg
Detected SVOC TICs									
beta -Amyrin	NA	NA	NA						
C19H40 Alkane	NA	NA	NA						
C15H10/C15H12 PAHs	NA	NA	NA						
C16H14 PAH	NA	NA	NA						
C17H12 PAH	NA	NA	NA						
C17H16 PAH	NA	NA	NA						
C20H12 PAH	NA	NA	NA						
Unknown	NA	NA	NA	259,400	2,040				5,540,000
Unknown Alkane	NA	NA	NA			420		209,600	
Unknown Alkane/Unknown	NA	NA	NA						
Unknown Sterol	NA	NA	NA		380				
Vitamin E	NA	NA	NA						
5-Pentyl-1,3-benzenediol	NA	NA	NA						
Total Detected SVOC TICs				259,400	2,420	420	ND	209,600	5,540,000
Total SVOCs & TICs				259,400	6,904	557	38.8	214,384	5,563,900

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	RC-3 0-0.5 237827 10/26/00 SOLID ug/Kg	RC-4 0-0.5 237828 10/26/00 SOLID ug/Kg	ES-1 0-0.5 237829 10/26/00 SOLID ug/Kg	Field Blank 237831 10/26/00 WATER ug/L	MW-1 237821 10/25/00 WATER ug/L	PZ-2 237822 10/25/00 WATER ug/L	Field Blank 237824 10/25/00 WATER ug/L
Detected SVOCs										
Naphthalene	13,000	13,000	10	ND (<8,900)	**ND (<43,000)**	20 J	ND (<0.8)	ND (<0.9)	ND (<0.9)	ND (<1.0)
Acenaphthylene	41,000	41,000	20	ND (<8,900)	**ND (<43,000)**	13 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.7)
Acenaphthene	50,000	90,000	20	220 J	ND (<43,000)	17 J	ND (<0.6)	ND (<0.6)	ND (<0.6)	ND (<0.8)
Fluorene	50,000	350,000	50	200 J	ND (<43,000)	28 J	ND (<0.8)	ND (<0.8)	ND (<0.8)	ND (<1.0)
N-Nitrosodiphenylamine	NS	NS	NS	ND (<8,900)	ND (<43,000)	64 J	ND (<0.6)	ND (<0.6)	ND (<0.6)	ND (<0.7)
Phenanthrene	50,000	220,000	50	1,100 J	ND (<43,000)	240 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.6)
Anthracene	50,000	700,000	50	ND (<8,900)	ND (<43,000)	60 J	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.4)
Di-n-butylphthalate	8,100	8,100	50	ND (<8,900)	**ND (<43,000)**	200 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.7)
Fluoranthene	50,000	1,900,000	50	600 J	1,500 J	470 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.6)
Pyrene	50,000	665,000	50	7,400 J	6,600 J	420 J	ND (<0.6)	ND (<0.6)	ND (<0.6)	ND (<0.7)
Benzidine	NS	NS	5	ND (<36,000)	ND (<170,000)	ND (<2,200)	ND (<14)	**ND (<15)**	**ND (<15)**	ND (<18)
Butylbenzylphthalate	50,000	122,000	50	ND (<8,900)	ND (<43,000)	ND (<560)	ND (<0.7)	ND (<0.8)	ND (<0.8)	ND (<0.9)
3,3'-Dichlorobenzidine	NS	NS	5	ND (<18,000)	ND (<87,000)	ND (<1,100)	ND (<5.0)	**ND (<5.3)**	**ND (<5.3)**	ND (<6.3)
Benzo(a)anthracene	224 or MDL	3,000	0.002	**1,800**	890 J	210	ND (<0.4)	**ND (<0.5)**	**ND (<0.5)**	ND (<0.5)
Chrysene	400	400	0.002	5,400 J	1,400 J	260 J	ND (<0.7)	**ND (<0.7)**	**ND (<0.7)**	ND (<0.9)
bis(2-Ethylhexyl)phthalate	50,000	435,000	5	ND (<8,900)	ND (<43,000)	3,700	ND (<2.1)	ND (<2.2)	ND (<2.2)	ND (<2.6)
Di-n-octylphthalate	50,000	120,000	50	ND (<8,900)	ND (<43,000)	420 J	ND (<0.3)	ND (<0.4)	ND (<0.4)	ND (<0.4)
Benzo(b)fluoranthene	1,100	1,100	0.002	**1,300**	**ND (<4,300)**	490	ND (<0.4)	**ND (<0.4)**	**ND (<0.4)**	ND (<0.5)
Benzo(k)fluoranthene	1,100	1,100	0.002	390 J	**ND (<4,300)**	90	ND (<0.7)	**ND (<0.7)**	**ND (<0.7)**	ND (<0.9)
Benzo(a)pyrene	61 or MDL	11,000	MDL	**1,500**	**5,000**	**230**	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Indeno(1,2,3-cd)pyrene	3,200	3,200	0.002	ND (<890)	**ND (<4,300)**	55 J	ND (<0.5)	**ND (<0.5)**	**ND (<0.5)**	ND (<0.7)
Dibenz(a,h)anthracene	14 or MDL	165,000,000	50	ND (<890)	ND (<4,300)	ND (<56)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.4)
Benzo(g,h,i)perylene	50,000	800,000	5	780 J	ND (<43,000)	74 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.6)
Total Detected SVOCs				20,690	15,390	7,061	ND	ND	ND	ND

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	RC-3 0-0.5 237827 10/26/00 SOLID ug/Kg	RC-4 0-0.5 237828 10/26/00 SOLID ug/Kg	ES-1 0-0.5 237829 10/26/00 SOLID ug/Kg	Field Blank 237831 10/26/00 WATER ug/L	MW-1 237821 10/25/00 WATER ug/L	PZ-2 237822 10/25/00 WATER ug/L	Field Blank 237824 10/25/00 WATER ug/L
Detected SVOC TICs										
beta -Amyrin	NA	NA	NA							
C19H40 Alkane	NA	NA	NA	14,000						
C15H10/C15H12 PAHs	NA	NA	NA	14,000						
C16H14 PAH	NA	NA	NA	38,000						
C17H12 PAH	NA	NA	NA							
C17H16 PAH	NA	NA	NA	40,000						
C20H12 PAH	NA	NA	NA							
Unknown	NA	NA	NA	71,000	410,000	45,000				
Unknown Alkane	NA	NA	NA	11,000		15,400				
Unknown Alkane/Unknown	NA	NA	NA							
Unknown Sterol	NA	NA	NA		100,000					
Vitamin E	NA	NA	NA							
5-Pentyl-1,3-benzenediol	NA	NA	NA							
Total Detected SVOC TICs				188,000	510,000	60,400	ND	ND	ND	ND
Total SVOCs & TICs				208,690	525,390	67,461	ND	ND	ND	ND

Notes:

ppm = Parts PerMillion = mg/Kg
ppb = Parts Per Billion = ug/L
Bolded = Compounds which exceed NYSDEC standards.
HWR-94-4046, 1/24/94 (TAGM 4046)
NA = Not Applicable.
ND = Not Detected.
ND(<) = Less than the Reporting Limit.
NS = No criteria listed in TAGM or NYSDEC Water Qality Standards.
B = The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
J = Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified quantitation limit but greater than zero. The concentration given is an approximate value.
SVOC = Semi-volatile organic compounds via USEPA Method 8270C.
TIC = Tentatively identified compounds via USEPA Method 8270C.

TABLE 4
Priority Pollutant Metals
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	NYSDEC	EB-1	EB-2	EB-3	EB-4	EB-4	TPE-3	MW-1	PZ-2	Field	Field
Sample Depth (ft.)	Recommended	Water	0.5-1.0	Catch Basin	16-16.5	1.5-2	16-16.5	1.5-2			Blank	Blank
Lab Sample No.	Soil	Quality	237812	237813	237814	237815	237839	237820	237821	237822	237824	237831
Sampling Date	Cleanup	Regulations	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/26/00
Matrix	Objectives		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	WATER	WATER	WATER	WATER
Units	(mg/Kg)	(ug/L)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	ug/L	ug/L	ug/L	ug/L
METALS												
Antimony	SB	3	ND (<1.4) N	ND (<1.4) N	ND (<1.5) N	ND (<1.1) N	ND (<1.3) N	ND (<1.2) N	**ND (<4.5)**	**ND (<4.5)**	**ND (<4.5)**	**ND (<4.5)**
Arsenic	7.5 or SB	25	**9.9**	0.87	5.1	2.2	1.6	ND (<0.67)	ND (<3.6)	6.6	ND (<3.6)	ND (<3.6)
Beryllium	0.16 or SB	NS	**0.59**	**0.20**	**0.29**	**0.21**	**0.24** B	**0.39** B	ND (<0.20)	ND (<0.20)	ND (<0.20)	ND (<0.20)
Cadmium	1 or SB	5	ND (<0.094)	ND (<0.096)	ND (<0.10)	ND (<0.079)	ND (<0.087)	ND (<0.084)	ND (<0.40)	ND (<0.40)	ND (<0.40)	ND (<0.40)
Chromium	10 or SB	50	6.4	**14.0**	5.7	5.5	6.7	4.6	ND (<1.1)	1.5	ND (<1.1)	ND (<1.1)
Copper	25 or SB	200	12.2 *	15.3 *	**35.5** *	15.7 *	11.3 *	6.6 *	ND (<2.7)	3.4	ND (<2.7)	ND (<2.7)
Lead	SB	25	9.6 *	12.4 *	33.3 *	21.8 *	34.2 *	3.0 *	ND (<2.1)	**75.2**	ND (<2.1)	ND (<2.1)
Mercury	0.1	0.7	0.04	ND (<0.020)	**0.34**	0.07	**0.14**	ND (<0.017)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)
Nickel	13 or SB	100	**41.1**	8.7 B	**13.7**	5.4 B	6.9 B	5.9 B	1.6	2.0	ND (<1.4)	ND (<1.4)
Selenium	2 or SB	10	ND (<0.99)	ND (<1.0)	ND (<1.1)	ND (<0.83)	ND (<0.91)	ND (<0.88)	ND (<4.5)	ND (<4.5)	ND (<4.5)	ND (<4.5)
Silver	SB	50	ND (<0.33)	ND (<0.33)	ND (<0.36)	ND (<0.28)	ND (<0.30)	ND (<0.29)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)
Thallium	SB	NS	ND (<1.1)	ND (<1.1)	ND (<1.2)	ND (<0.93)	ND (<1.0)	ND (<0.98)	ND (<4.1)	ND (<4.1)	ND (<4.1)	ND (<4.1)
Zinc	20 or SB	NS	17.5	**259**	**170**	**38.5**	**61.9**	12.8	20.8	13.6	103	23.8

Notes:
TAGM 4046, 1/24/94 (TAGM 4046)
Water Quality Regulations Title 6, Chapter X, Parts 700-706 Fresh Groundwater - GA aquifers
ppm = Parts Per Million = mg/Kg
ppb = Parts Per Billion = ug/L
SB = Site Background
Metals analysis via USEPA Method SW-846 (soils) and 200 Series (water).
* = The spiked sample recovery is not within control limits.
B = The reported value is less than the Method Detection Limit but greater than or equal to the Instrument Detection limit.
* = Duplicate analysis is not within control limits.
Bolded entry = Sample concentration which exceeds the NYSDEC recommended action value.
NS = No Criteria Listed in TAGM 4046 OR NYSDES Water Quality Standards.

TABLE 5
PCBs
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	EB-3	EB-4	EB-4	TPE-3	RC-1	RC-2	RC-3	RC-4	ES-1	Field Blank
Sample Depth (feet)	Recommended	16-16.5	1.5-2	16-16.5	1.5-2.0	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	
Lab Sample No.	Cleanup	237814	237815	237839	237820	237825	237826	237827	237828	237829	237831
Sampling Date	Objectives	10/25/00	10/25/00	10/25/00	10/25/00	10/26/00	10/26/00	10/26/00	10/26/00	10/26/00	10/26/00
Matrix		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	WATER
Units	ppm or mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/L
PCBs											
Aroclor-1016	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<300)
Aroclor-1221	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<300)
Aroclor-1232	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<300)
Aroclor-1242	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<200)
Aroclor-1248	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<300)
Aroclor-1254	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	0.420	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<200)
Aroclor-1260	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<400)
Aroclor-1262	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<200)
Aroclor-1268	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<200)

Notes:

ppm = mg/Kg

NA = Not Applicable.

ND = Not Detected.

ND(<) = Less than the Reporting Limit.

PCB = Polychlorinated Biphenyls via USEPA Method 8082.

ENVISION
ENVIRONMENTAL, INC.

APPENDIX 2

Key Project Personnel Resumes

Mark P. Roman
ENVISION ENVIRONMENTAL, INC.
21 Priscilla Lane
Howell, New Jersey 07731
(732) 886-1664
Fax (732) 886-2925

Skills:

Familiarity with the Clean Water Act, Federal Categorical Pretreatment Regulations, NPDES, RCRA, OSHA, Federal and State Underground Storage Tank Regulations, NJ ISRA, MA MCP Program, CT Property Transfer Program, ASTM Standards for Site Investigations and the NJDEP Field Sampling and Remedial Investigation Procedures.

Conduct and manage site investigations and facility compliance audits according to the appropriate agency's protocol, from preliminary assessments to remediation, and in some cases continuing with remedial operations and maintenance.

Interaction and negotiation with regulatory representatives and with client relations.

Management of $0.5 to >$1 million projects; preparation of technical reports; and both personnel and contractor supervision.

Experience:

Envision Environmental, Inc. Howell, New Jersey 07731
Position: President

January 1997 to Present

Responsible for the formation and all facets of operating an environmental consulting company. Manage and conduct site investigations, facility compliance audits, Phase I assessments and due diligence studies for industrial clients and financial institutions for site characterization, facility compliance with applicable regulations and determination of potential liabilities. Involved in all aspects of the site investigation and compliance audit, from preliminary assessments and records review to full scale remediation, if required. Responsible for the organization, establishment and implementation of a consulting/services group, which provides trouble-shooting, start-up, operations/maintenance, and consulting/engineering services for wastewater, groundwater and soil treatment systems. Provide licensed treatment system operator support services, including onsite system management, compliance management, residual disposal, facility personnel training and regulatory interface. Provide wastewater consulting services.

Recon Environmental Corp. Raritan, New Jersey 08869
Position: Manager, Site Investigation/Environmental Management

January 1992 to January 1997

Manage and conduct site investigations, facility compliance audits and due diligence studies for industrial clients and financial institutions for site characterization, facility compliance with applicable regulations and determination of potential liabilities. Involved in all aspects of the site investigation and compliance audit, from preliminary assessments and records review to full scale remediation, if required. Responsible for the organization, establishment and implementation of a consulting/services group, which provides trouble-shooting, start-up, operations/maintenance, and consulting/engineering services for wastewater, groundwater and soil treatment systems. Provide licensed treatment system operator support services, including onsite system management, compliance management, residual disposal, facility personnel training and regulatory interface. Provide wastewater consulting services. Assist in the design and engineering of treatment systems, from treatability studies and permit procurement to installation and start-up. Responsible for business development of above services.

Recon Systems, Inc. Raritan, New Jersey 08869
Position: Senior Environmental Specialist

January 1991 to January 1992

Managed and performed site investigations, facility compliance audits and underground storage tank removals. Provided consulting services for clients under the NJ ECRA/ISRA program and the underground storage tank program; and participated in Phase I and Phase II investigations. These tasks included the preparation of all required filings; development of health and safety plans and site specific sampling protocol; preparation, review and recommendation of remedial specific bid packages; oversight of onsite contractor services; regulatory negotiations; and client relations. Provide wastewater consulting services. Involved in the compliance management of wastewater, groundwater and soil treatment systems, including permit procurement, system installation oversight, system start-up, operations and maintenance, monitoring, reporting, trouble-shooting, preparation of manuals and personnel training. Participated in treatment feasibility studies and equipment procurement. Also responsible for business development.

Recon Systems, Inc. Three Bridges, New Jersey 08887
Position: Environmental Specialist

January 1989 to January 1991

Conducted site investigations and cleanups under the NJ ECRA program. This work included the preparation of site specific health and safety plans, and sampling and analysis plans; field sampling activities which involved soil test borings, installation and sampling of monitoring wells; utilization of a variety of site decontamination and decommissioning procedures; excavation and disposal of contaminated material; and oversight of clean-up contractors . Provided consulting, testing and some project management services for the environmental management of underground storage tanks, including regulatory compliance, documentation and remedial activities.

Passaic Valley Sewerage Commissioners Newark, New Jersey 07105
Position: Industrial Inspector I

January 1986 to January 1989

Conducted industrial plant evaluations concerning process specific types of industrial wastes discharged and compliance status with respective pretreatment standards and permit requirements. Enforced agency rules and regulations and assisted industry plant personnel in the completion of various environmental and industrial report forms. Investigated reported discharges of pollutants into the sanitary or storm sewer and river in order to determine the type of pollutant discharged and to ensure that corrective action is initiated by the responsible party. Responsible for monitoring and implementation of all aspects of industrial wastewater sampling compliance.

Education:

Long Island University Southampton, New York

1981 - 1985

Earned Bachelor of Science degree in Marine Biology with a minor in Mathematics in 1988.

Licenses and Certifications:

Certified Hazardous Materials Manager (CHMM)

40-hour OSHA required training for hazardous material site workers.

8-hour OSHA required training for supervisors of hazardous material site workers.

Maintain OSHA required annual refresher training for hazardous material site workers.

New Jersey certified Soil Borer.

New Jersey certified Subsurface Evaluator.

New Jersey Class N-4 Wastewater Treatment System Licensed Operator.

New York Grade II-A Wastewater Treatment System Licensed Operator.

Massachusetts Grade 3 I Industrial Wastewater Treatment System Licensed Operator

Certified trainer for DOT HM-181/HM-126F Hazardous Materials Training and Testing.

Owens-Corning certified Underground Tank Installer.

Member of the Water Environment Federation National Committees on Hazardous Wastes and Plant Operations

Published author of technical articles and active participant in technical seminars.

ABRAHAM PLATT

Senior Engineer, Associate

engineered products
site audits/assessments
site decontamination/remediation
health & safety plans and monitoring
asbestos management

Mr. Platt has over thirty years of work experience, with twenty-two years of experience as an environmental consultant conducting environmental site assessments and compliance audits; preparing and implementing multimedia sampling and analysis plans, health and safety plans, facility decontamination/decommissioning plans, remediation investigation plans, asbestos abatement plans, and exterior cleanup plans; conducting surveys for radon gas, suspect asbestos-containing materials, and lead-based surface coatings; preparing test protocols for and conducting air emissions testing; designing, troubleshooting, and supervising the installation of air and water pollution control systems; preparing operating permits for air pollution control equipment; and preparing permits for effluent discharges to "publicly owned treatment works".

Since 1994, he has been assigned to the engineered products division, satisfying clients' needs for pollution control equipment and systems to treat process discharges and for soil and groundwater remediation systems. For the past six years he has been involved in the design, fabrication, installation, and start-up of numerous treatment systems. These have included skid-mounted, shed-mounted, trailer-mounted, container-mounted, and on-site built systems for the remediation of contaminated groundwater and process effluent, skid-mounted and on-site built odor control systems, and skid-mounted, shed-mounted, trailer-mounted, and stand alone equipment for treatment of contaminated soil. Several of the trailer-mounted systems were built inside of van-type over-the-road trailers as large as 102" wide by 53' long by 8' high, others were built in office trailers as large as 8' wide by 24' long by 7-1/2' high and still others in 20' and 40' sea-going containers.

The processes involved in the groundwater treatment systems have included: dual phase vacuum extraction, free product separation, oil/water separation, pH adjustment and polymer addition, particle filtration, air stripping, and liquid and vapor phase carbon adsorption. The processes involved in the soil treatment systems have included soil vapor extraction, multi-phase extraction, air sparging, thermal desorption, and liquid and vapor phase carbon adsorption.

Mr. Platt has a strong background in computer applications including computer-aided design, mathematical modeling, database and project management software. He also has conducted worker health and safety training (OSHA 8-hour refreshers) and onsite monitoring, conducted respirator training, respirator fit testing, and has been the branch office health and safety officer.

EDUCATION

B.S. Environmental Engineering Technology, New Jersey Institute of Technology/Newark College of Engineering, 1985

REPRESENTATIVE EXPERIENCE

- Has been involved in the design, procurement, assembly, installation, and start-up of more than thirty-five skid-mounted, shed-mounted, trailer-mounted, container-mounted and on-site built remediation systems for the remediation of contaminated effluent, air emissions, groundwater, and soil. Has also designed and assembled approximately twenty rental systems for the treatment of soil and/or groundwater at sites in four states.
- Project Manager for Phase I Environmental Site Assessments conducted at twenty-six diesel truck manufacturing facilities throughout the country and Canada by one to four person teams. Conducted the site inspection for three of the sites and prepared reports. The sites included the world headquarters building (asbestos survey), a major warehousing facility, and a diesel engine and transmission manufacturing facility. Recommendations made concerning the handling and storage of hazardous materials and petroleum products, and identification and abatement of asbestos-containing building materials, as well as for a Phase II investigation of the engine and transmission facility.
- Project Manager for the environmental assessment of the interior and exterior of a complex manufacturing site in New Jersey, including soil and groundwater sampling and laboratory analysis; and surveys for mercury, radiation, PCB's and asbestos-containing materials. Establish criteria for and implemented pilot scale mercury remediation project. Supervised asbestos, mercury and soil remediation, including health and safety, and compliance monitoring of contractors' actions and crews. Prepared progress and compliance reports to the NJDEP.
- Project manager for the environmental site assessment conducted for a lighting manufacturing facility in New Jersey. Scope of work included soil and groundwater sampling and laboratory analysis, surveys for mercury, PCB's and asbestos-containing materials, and testing for leaking underground storage tanks. Supervised or assisted in the preparation of specifications, selection of contractors, supervision of remediation including tank removals, soil cleanup, mercury removal from floor drains and sanitary sewer lines, and asbestos removals, performing compliance sampling and monitoring and issuing reports to the NJDEP.
- Conducted the initial environmental assessment of a New Jersey manufacturing facility and prepared the ECRA Sampling and Analysis Plan. Conducted sampling for decontamination/decommissioning in areas of suspected petroleum hydrocarbon (PHC), PCB, mercury (Hg) and asbestos contamination. Prepared remediation specifications and solicited contractor bids for remediation of the PCB, Hg and PHC contamination. Supervised the asbestos abatement monitoring and preparation of the documentation report submitted to the NJDEP.

- Project Manager for the ECRA investigation and remediation at a New Jersey chemical manufacturing site. Prepared and implemented the Remediation Investigation Plan which included abatement of asbestos-containing building materials, in-place closure and/or removal of several underground storage tanks, and the removal of soils contaminated with hazardous materials.
- Conducted Phase I Environmental Site Assessments at more than thirty undeveloped and developed residential and commercial properties in New Jersey. Some of the commercial properties have included office buildings, a real estate agency, a lumber yard, a large butcher shop, a hardware store, a painting contractor, a general aviation airport and several small manufacturing facilities. Phase II activities have included sampling for asbestos, lead-based paints, radon, and urea formaldehyde.
- Project Manager for the environmental assessment of a New Jersey facility involved in the manufacture of feather-stuffed pillows, quilts, and mattresses. Prepared the ECRA Initial Notice, the Sampling and Analysis Plan, a site specific Health and Safety Plan, and a Remediation Plan. Sampling and laboratory analysis included suspect asbestos-containing building materials, soil and groundwater. Leak testing of underground fuel storage tank. Preparation of specifications, selection of contractors, and supervision of remedial actions, including tank removal, soil and groundwater cleanup and asbestos removal.
- Project Manager for Phase I Environmental Site Assessments conducted at seven baking facilities throughout the country. Conducted the site inspection for three of these sites and prepared reports. Recommendations made concerning the handling and storage of hazardous materials and petroleum products, and identification and abatement of asbestos-containing building materials.
- Team leader for one of five teams that conducted three acquisition and one divestiture studies of fifty-one manufacturing facilities in twenty-three states and Puerto Rico for a paper coating firm. The acquisition studies included Phase I Environmental Site Assessments and a review of each facility's regulatory compliance. Phase II sampling activities were conducted at eighteen of the sites. Conducted the site inspection for seventeen of these sites and assisted in the preparation of a report which presented the potential liability risk to the purchaser.
- Conducted Phase I Environmental Site Investigation at a New Jersey Airport for a banking firm. Scope of work included sampling for radon, asbestos, lead-based paints, contaminated soil due to surface stains and soil sampling to determine tank integrity for ten active and inactive underground storage tanks.
- Conducted asbestos survey at a passenger station for a New Jersey rail transportation organization. Prepared specifications and was the project manager for the asbestos abatement monitoring conducted while the station remained in full operation.
- Conducted surveys for asbestos-containing building materials at eight of the eighteen paper mills being evaluated during the environmental due diligence investigation of an acquisition study. Air sampling and analysis was conducted to determine if asbestos fibers had become airborne. Prepared cost estimates for worst case asbestos

abatement projects at the eight sites. Reviewed surveys and cost estimates for the remainder of the sites.

- Team leader for one of four, two-person teams that conducted an acquisition study for an international specialty chemical corporation, at thirty facilities in the United States and Canada. The study included Phase I Environmental Site Assessments and a review of each facility's regulatory compliance. Phase II sampling activities were conducted at twenty of the sites. Conducted the site inspection for eleven of these sites and assisted in the preparation of a report which presented the potential liability risk to the purchaser.
- Conducted Phase I Environmental Site Assessment of a New Jersey site prior to a roadway construction project. Phase II investigative activities included confirmatory asbestos sampling and soil sampling to delineate contamination associated with surface stains and underground storage tanks.
- Conducted Phase I Environmental Site Assessment of a large inactive rail yard in Pennsylvania, which the city proposed to convert into an industrial park. The Phase I report included recommendations, a sampling and analysis plan and a cost estimate for remediation of site.
- For approximately six and one-half years was involved in preparing test protocols for and conducting air emissions testing (both as a stack tester and a stack test leader); and in designing, troubleshooting, and supervising the installation of air and water pollution control systems in seven states.

PUBLICATIONS

- Author/co-author of over 200 technical reports for regulatory agencies and commercial clients.
- Author/co-author of over 75 Phase I environmental site assessment reports
- Author/co-author of over 30 operation and maintenance (O&M) manuals for contaminant remediation systems.

REGISTRATIONS/CERTIFICATIONS

Asbestos Safety Technician: New Jersey, No. 00162

SEMINARS/COURSES

OSHA Hazardous Waste Site Safety Training (40-hour and annual refreshers)

OSHA Hazardous Waste Site Operations Supervisor

American Red Cross Standard First Aid and Adult CPR

PROFESSIONAL HISTORY

ENVISION Environmental, Inc., Howell, NJ, August, 2000 - Present

LFR Levine·Fricke (LFR), Raritan, NJ, December, 1984 - July, 2000

Trace Technologies, Inc., Bridgewater, NJ, 1978 - 1984

Stauffer Chemical Co., Passaic, NJ, 1970 - 1978

Monsanto Company, Kenilworth, NJ, 1968 - 1970

JOHN H. WEAKLIEM

Geologist

project management
site investigations/remediation
geology

Mr. Weakliem's responsibilities include project management of site investigation and remediation activities and preparation of Remedial Investigation and Remedial Action Reports and Workplans. He has also performed Phase I site assessments and Phase II site investigations. His technical expertise includes field and analytical techniques, development of aquifer test proposals and the performance of aquifer tests, analytical groundwater modeling, and preparation of hydrogeologic reports in support of Water Allocation Permits and Remedial Investigations. He has conducted site investigations in New Jersey, New York, South Carolina, Florida, Connecticut, Massachusetts, Pennsylvania, Michigan, Tennessee, Maryland, Virginia, and California.

EDUCATION

M.S. Geology, Lehigh University, 1984

B.S. Geology, Allegheny College, 1981

REPRESENTATIVE EXPERIENCE

Project Management

- For a Pennsylvania industrial painting company, developed risk-based strategy for completing remediation. Demonstrated site remediation had met statewide health standard under Act 2. Work involved determination of non-use aquifer status, plume delineation, attainment monitoring, and groundwater modeling to determine fate and transport. Site closure was obtained from PADEP.
- For a New Jersey transportation company designed and supervised the development of a site investigation and remediation program. Prepared Remedial Investigation and Remedial Action Work Plan to address environmental concerns at a rail yard. The program included delineation of soil and groundwater contamination and pumping tests to obtain hydrogeologic data for design of a treatment system. Developed an integrated strategy for recovery and monitoring well placement and managed engineering staff in design and installation of groundwater treatment system. Also worked closely with the client and NJDEP to resolve NJDEP permit issues regarding the discharge of treated groundwater.
- Designed and directed remedial investigation of soil contamination below an operating manufacturing plant. Project included coordination with plant personnel and subcontractors to assure no disruption of plant activities. Following delineation of the contamination several *in-situ* technologies were evaluated. Biological augmentation was

selected as the remedy. Successful implementation of advanced remedial technology was accomplished while the plant continued full operation.

Site Investigation

- For a New Jersey metals refining facility, performed aquifer tests in support of Water Allocation Permit application to NJDEP-BWA. Prepared hydrogeological report, permit application, and supporting documentation for permit, which was approved.
- For a New Jersey manufacturing facility, designed and conducted passive soil vapor survey followed by installation of interior borings to collect soil and groundwater samples in order to investigate potential migration paths and to delineate chlorinated solvent contamination of soil and groundwater under a building.
- Provided litigation support for a commercial industrial facility in New York, including determining on and offsite sources of contamination. Detailed evaluation of soil and groundwater contamination patterns and fate and transport of contaminants lead to successful outcome of litigation.
- For a New Jersey transportation company supervised monitoring well investigation to determine distribution of free product at a former rail yard. Conducted aquifer testing to obtain aquifer parameters and prepared Baseline Environmental Report for a site in a "Special Industrial Area" under Pennsylvania Act 2 regulations.
- Performed a Preliminary Assessment under New Jersey's Industrial Site Remediation Act for a former specialty chemical manufacturing facility. Work involved site reconnaissance, interviews with former site personnel and local officials, and records review. Resulted in a "No Further Action" determination by NJDEP.
- Conducted Phase I Environmental Site Assessment of a New Jersey can manufacturing plant as part of a multi-disciplinary team. Investigation revealed significant impact below building that had been missed by previous consultants.
- Conducted a remedial investigation for a former metal plating facility in New Jersey. Soil and groundwater had been impacted by metals and chlorinated VOCs. Used groundwater and soil sampling results to show that much of the metals contamination was due to historic fill, and VOC contamination was due to offsite sources.
- Conducted Phase II Environmental Site Assessment for a manufacturing facility in South Carolina. Project involved accelerated field investigation with installation and sampling of permanent and temporary monitoring wells, soil sampling, and aquifer testing. Site had multiple areas of concern, including former underground tank farm that had been closed by state which subsequently exhibited free product nearby in later investigations. Results of investigation and fate and transport analysis showed only minor impacts, and closed UST case was not reopened.

- Conducted groundwater investigation of former manufacturing facility in Florida. Work included development conceptual site model and presentation to Florida Department of Environmental Protection, development of Interim Remedial Measures to address petroleum contaminated soil under building, and groundwater sampling to provide information required to assess future remedial options.

Remediation

- For a former New Jersey manufacturing facility, prepared series of Remedial Action Progress Reports, documenting performance of a treatment system for groundwater contaminated by chlorinated solvents. Used groundwater modeling and pumping test data to calculate capture zone of the recovery system and demonstrate protection of a sensitive receptor to NJDEP.
- For a New Jersey metal-forming facility, conducted remedial investigation and prepared Remedial Action Workplan for soil contaminated by hydraulic oil. Investigation involved installation of trenches and borings inside an operating facility, which was completed without disrupting operations. Project also included recommendations for prevention of further oil contamination via application of advanced coating to a machine sump in floor.
- For a California chemical facility, performed a groundwater model to determine design parameters for a sheet piling funnel and gate groundwater treatment system to capture a plume of toluene and styrene contamination. Model covered two adjacent properties, and included the operation of an existing dewatering sump in one of the Site buildings. Model also explored design parameters needed to capture an isolated plume of chlorinated solvent contamination.
- Provided oversight of soil excavation for a manufacturing facility in Massachusetts. Work involved excavation of soil impacted by toluene and alcohol in close proximity to buildings. Project was completed on schedule, and all contamination above risk-based criteria in this portion of the site was successfully removed.

REGISTRATIONS/CERTIFICATIONS

NJDEP Subsurface Evaluator, New Jersey, No. 0021618

SEMINARS/COURSES

OSHA Hazardous Waste Site Safety Training (40-hour and annual refreshers)

Remediation of Contaminated Soils, course, Rutgers University, April 2000

Using Arc View GIS for Environmental Evaluations, course, Rutgers University, October 1999

Alternative Groundwater Sampling Techniques, course, NJDEP/Rutgers University, March 1998

Electronic Deliverables Requirements, NJDEP seminar, February 1998

Technical Requirements for Site Remediation (NJAC 7;26E), NJDEP seminar, March 1997

PROFESSIONAL AFFILIATIONS

Member, Geological Association of New Jersey

Member, National Groundwater Association

ENVISION
ENVIRONMENTAL, INC.

APPENDIX 3

Health and Safety Plan

HEALTH AND SAFETY PLAN

for

Site Investigation Work Plan

FiberMark DSI, Inc.
(Formerly REXAM DSI INC.)
Bridge Street
Brownville, NY 13615

VCP Site No. V00525-6
Index No. B6-0610-03

for

REXAM INC.
Charlotte, NC

Prepared by:

ENVISION ENVIRONMENTAL, INC.
Howell, New Jersey

July 2002

ENVISION Project ID: 601.REX

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ATTACHMENTS

1.0 INTRODUCTION

1.1 HASP Applicability

This Site-specific Health and Safety Plan (HASP) has been developed by ENVISION ENVIRONMENTAL, INC. (ENVISION). It establishes the health and safety procedures to minimize any potential risk to ENVISION and contractor personnel implementing the Site Investigation Work Plan at the FiberMark DSI facility located at Bridge Street in Brownville, New York (Site).

The provisions of this plan apply to all ENVISION personnel and ENVISION subcontractor personnel who may potentially be exposed to safety and/or health hazards related to activities described in Section 2.0 of this document.

This HASP has been written to comply with the requirements of the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120). All activities covered by this HASP must be conducted in compliance with this HASP and with all applicable federal, state, and local health and safety regulations. Personnel covered by this HASP who cannot or will not comply will be excluded from Site activities.

This plan will be distributed to every employee involved with the remedial activities occurring on the Site. Each employee must sign a copy of the attached Health and Safety Plan Acknowledgement Form (Attachment A.).

1.2 Organizational Responsibilities

1.2.1 ENVISION Project Manager – Mark Roman

The ENVISION Project Manager (PM) is responsible for ensuring the overall health and safety during this project. As such the Project Manager is responsible for ensuring that the requirements of this HASP are implemented. The Project Manager's specific responsibilities include:

- Assuring that all personnel covered under this HASP receive a copy of it.
- Providing the Health and Safety Manager with updated information regarding conditions at the Site and the scope of work.
- Maintaining regular communication with the Site Safety Officer (SSO) and if necessary the Health and Safety Manager.
- Coordinating the activities of all subcontractors and ensuring that they are aware of the pertinent health and safety requirements of this project.

1.2.2 ENVISION Health and Safety Manager – Leslie Reid-Green

The ENVISION Health and Safety Manager (HSM) is the individual responsible for the preparation, interpretation and modification of this HASP. Modifications to this HASP which may result in less stringent precautions cannot be undertaken by the PM or the SSO without the approval of the HSM. Specific duties of the HSM include:

- Writing, approving and amending the HASP for this project.
- Advising the PM and SSO on matters relating to health and safety on this Site.
- Recommending appropriate personal protective equipment (PPE) and air monitoring instrumentation to protect personnel from Site hazards.
- Maintaining regular contact with the PM and SSO to evaluate Site conditions and new information which might require modification to the HASP.

1.2.3 Site Safety Officer- Abraham Platt

The SSO is responsible for enforcing the requirements of this HASP once remedial activities begin. The SSO has the authority to immediately correct all situations where non-compliance with this HASP is observed and to stop work when an immediate danger is present. Some of the specific duties of the SSO include:

- Assuring that all personnel covered by this HASP have submitted a completed copy of the HASP acknowledgement form.
- Assuring that all personnel covered by this HASP have attended a Site safety and health meeting before entering the work areas.
- Ensuring that necessary PPE is available for use on the Site.
- Ensuring that necessary air monitoring instrumentation is available onsite.
- Performing air monitoring.
- Setting up and maintaining work zones and assuring proper decontamination of all Site personnel and equipment.
- Notifying the PM of all cases of noncompliance with the HASP and stopping work in the event of an immediate danger.
- Monitoring the safety performance of all personnel in the work areas to ensure that provisions of this HASP are being followed.
- Conducting the safety and health meeting prior to commencement of work.
- Initiating emergency response procedures in accordance with Section 9.0 of this HASP.

1.2.4 Field Personnel

All field personnel and contractor personnel covered by this HASP are responsible for following the health and safety procedures specified in this HASP and for performing their work in a safe and responsible manner. Some of the responsibilities of field personnel include:

- Reading the HASP in its entirety prior to the start of work on the Site.
- Submitting a completed HASP Acknowledgement Form and documentation of required training and medical surveillance to the ENVISION PM prior to the start of work.
- Attending a safety and health meeting prior to the start of work.
- Asking any questions or concerns regarding to the HASP to the PM or SSO prior to the start of work.
- Reporting all accidents, injuries, illnesses or any unsafe conditions to the SSO.
- Complying with the requirements of this HASP and the direction of the SSO.

1.2.5 Contractors

In addition to the other requirements outlined in this HASP all contractors are required to:

- Provide appropriate PPE for their employees.
- Ensure, via daily inspections that their equipment is maintained in good working condition.
- Operate their equipment in a safe manner.

1.3 Modifications to the HASP

The procedures in this HASP were developed with information collected in July 2002 using the most current information available. Should additional information become available regarding known or potential hazards onsite, it may be necessary to modify this HASP. This HASP only applies to tasks outlined in Section 2.0. A task specific HASP or an addendum to this HASP will be developed for any activities to be conducted at the Site at a later date.

2.0 SCOPE OF WORK

2.1 Soil Boring / Sampling

Approximately fourteen (14) borings will be advanced with a hand auger in the locations indicated on Figure 3 of the Site Investigation Work Plan. Soil samples will be collected for subsequent laboratory analysis.

2.2 Installation of Groundwater Monitoring Wells

Four (4) monitoring wells will be installed in the locations indicated on Figure 3 of the Site Investigation Work Plan. The wells will be installed using air rotary and hollow stem auger drill rigs. After installation, the wells will be developed.

2.3 Groundwater Sampling

A minimum of two (2) weeks following installation, the wells will be purged and sampled using a submersible pump.

2.4 Cleaning of Oil Stained Walls

Several walls in the interior of the main plant are stained with oil. These stained areas will be cleaned by pressure washing.

3.0 HEALTH AND SAFETY RISK ANALYSIS

3.1 Chemical Hazards

The chemical contaminants of concern for the activities being performed are polycyclic aromatic hydrocarbons (PAHs) and priority pollutant metals (PPMs).

3.1.1 Polycyclic Aromatic Hydrocarbons (PAHs)

Several PAH compounds have been found in soils on the Site. These include: benzo(a)anthracene, benzo(a)pyrene, benzo(k)flouranthene, dibenzo(a,h)anthracene, chrysene and benzo(h)flouranthene. These chemicals consist of joined aromatic (benzene) rings. PAHs are black or dark-brown residues. They occur in a variety of environmental products such as soot, coal, tar, tobacco smoke, petroleum and cutting oils. Exposures to PAHs cause skin rashes and bronchitis. Benzo(a)anthracene, benzo(a)pyrene and dibenzo(a,h)anthracene are suspected human carcinogens. Chrysene is considered by the American Conference of Governmental Industrial Hygienists (ACGIH) as a confirmed animal carcinogen with unknown relevance to humans. The PAHs can cause skin cancers at the site of contact, particularly among outdoor workers who also have excessive exposure to ultraviolet light. The ACGIH has not established Threshold Limit Values (TLVs) for these compounds but recommends that exposure by all routes be carefully controlled to levels as low as possible.

3.1.2 Arsenic

Arsenic has been detected in soil on the Site at levels up to 9.9 mg/Kg. It is a silver-gray or tin-white, brittle, odorless solid. Absorption occurs by inhalation of dust or fumes, by ingestion and through the skin. Arsenic produces skin irritation and irritation of the mucous membranes of the nose. Overexposure may also cause lung and skin cancer. Symptoms of exposure include skin rashes, runny nose, and thickened skin, sometimes accompanied by cracking and gastrointestinal problems. The PEL for airborne arsenic is 0.01 mg/m^3. The ACGIH also recommends a TLV of 0.01 mg/m^3 due to its ability to cause skin and lung cancer as well as other effects of the lung.

3.1.3 Beryllium

Beryllium is a hard brittle gray-white solid. It is a confirmed human carcinogen, causing lung cancer in exposed populations. Beryllium can also causes berylliosis, a chronic lung disease that is an immunologic reaction to exposure in susceptible people. However the risk of berylliosis is probably highest in those exposed to fumes from welding, melting or casting. Symptoms of exposure include weight loss, malaise, muscle aches, chest pain, cough, and dermatitis. OSHA's PEL for beryllium is 0.002 mg/m^3. The ACGIH recommends a TLV of 0.002 mg/m^3 based due to its ability to cause lung cancer and berylliosis. Beryllium has been detected in soil on the Site at levels up to 0.59 mg/Kg.

3.1.4 Chromium

Exposure to hexavalent chromium may produce irritation of the mucous membranes of the upper respiratory tract, nose and mouth. Symptoms of exposure include nosebleeds and perforation of the nasal septum. Overexposure may also result in contact dermatitis. Hexavalent chromium is a known lung carcinogen. The PEL for hexavalent chromium is 0.1 mg/m^3. The ACGIH recommends a TLV of 0.01 mg/m^3 for insoluble hexavalent chromium compounds due to its irritant effects and its carcinogenicity, and 0.05 mg/m^3 for soluble compounds based on its effects on the liver, kidney and respiratory system. Total chromium, which could potentially include hexavalent chromium, has been detected in soil on the Site at up levels to 14 mg/Kg.

3.1.5 Mercury

Mercury is a silver-white, heavy, odorless liquid. Routes of absorption include inhalation of dust or vapor, ingestion, and skin absorption of a number of inorganic and organic forms. All forms of mercury are irritants of the skin and mucous membranes; sensitizing reactions of the skin may also develop. Inhalation of high levels of mercury vapors can result in severe inflammation of the lungs. Ingestion of mercury and its compounds can result in severe gastrointestinal problems, including nausea and vomiting. Central nervous system effects are the primary result of mercury intoxication. Symptoms include headache, fatigue, weakness, tremor and personality change. Mercury also causes kidney damage. The PEL for mercury is 0.1 mg/m^3. The ACGIH recommends a TLV of 0.025 mg/m^3 for elemental and inorganic forms of mercury due to its effects on the central nervous system and the kidneys. Mercury was detected in soil on the Site at levels up to 0.34 mg/Kg.

3.1.6 Nickel

Nickel is a lustrous, silvery, odorless solid. Symptoms of exposure to metallic nickel include contact dermatitis and airway irritation (allergic asthma). Inhalation of insoluble inorganic nickel compounds can cause cancer of the nose, nasal sinuses and lungs. The OSHA PEL for nickel is 1 mg/m^3. The ACGIH has set a TLV of 0.2 mg/m^3 for insoluble inorganic nickel compounds due to its irritant effects on the lung and skin as well as its carcinogenicity. Nickel has been detected in soil on the Site at levels up to 41.1 mg/Kg.

3.1.7 Lead

Lead has been detected in groundwater on the Site. Lead is a heavy, soft, gray solid. Symptoms of exposure include weakness, muscle aches, headache, depression, loss of libido, impotence, and gastrointestinal difficulties (abdominal pain, constipation). It is toxic to the central nervous system and causes injury to the kidneys and blood. The

OSHA PEL for lead is 0.05 mg/m^3. The ACGIH has set a TLV of 0.05 mg/m^3 due to its effects on the central nervous system, blood, kidney and reproductive system.

3.1.8 PCB – Arochlor 1254

PCBs (Arochlor 1254) were detected in one (1) rock chip sample from a stained wall at a concentration below the New York State cleanup standard. PCBs are colorless to light colored viscous liquids with a mild hydrocarbon odor. Exposure to PCBs causes eye irritation, chloracne and liver toxicity. Arochlor 1254 is a known animal carcinogen that may or may not cause cancer in humans. PCBs are readily absorbed through the skin. The OSHA PEL ranges from 0.5 to 1 mg/m^3. The ACGIH has also set TLVs between 0.5 and 1 mg/m^3 based on its irritant effects and its ability to cause chloracne and liver damage.

TABLE 1

CHEMICAL HAZARDS

Contaminants	PEL	TLV	IDLH
PAHs	NA	*	NA
Arsenic	0.01 mg/m^3	0.01 mg/m^3	5 mg/m^3
Beryllium	0.002 mg/m^3	0.002 mg/m^3	4mg/m^3
Chromium +6	0.1 mg/m^3	0.01 mg/m^3	15 mg/m^3
Mercury	0.1 mg/m^3	0.025 mg/m^3	10 mg/m^3
Nickel	1 mg/m^3	0.2 mg/m^3	10 mg/m^3
Lead	0.05 mg/m^3	0.05 mg/m^3	100 mg/m^3
PCB – Arochlor 1254	0.5 mg/m^3	0.5 mg/m^3	5 mg/m^3

NA- not established

* - The ACGIH recommends that exposure by all routes be carefully controlled to levels as low as possible.

3.2 Chemical Exposure and Control

3.2.1 Chemical Exposure Potential

The priority pollutant metals (PPM) contaminants of concern are at relatively low concentrations in the soil and groundwater encountered at the Site and pose a low potential inhalation hazard for the field team during investigation activities. The PAHs however are present in higher concentrations and pose a moderate potential inhalation and skin contact hazard for the field team during investigation activities.

3.2.2 Chemical Exposure Control

The following chemical exposure control measures will be implemented during the proposed remedial activities:

- Air monitoring will be performed in the workers' breathing zone to determine exposure to dusts during subsurface investigations, sampling activities, monitoring well installation and sampling. If exposures exceed the action levels, respiratory protection will be worn.

- Dust generation will be kept to a minimum. If visible dust is generated, particulate respirators will be worn. This may be an R or P series filtering facepiece with 99.97% efficiency or a full-face respirator with a cartridge containing a HEPA filter.

- To avoid direct dermal contact with contaminated soil, water and equipment, protective clothing as described in Section 5.0 will be required when there is a potential for direct contact (during sample collection, decontaminating sampling and heavy equipment, or when otherwise handling contaminated soil, water, piping, etc.).

- To avoid exposure through ingestion, strict adherence to the health and safety guidelines outlined in Section 6.0 and the decontamination procedures outlined in Section 7.0 will be followed.

3.3 Physical Hazards and Controls

3.3.1 Underground Utilities

The State of New York requires that a utility mark-out be performed at a site prior to starting any subsurface work. The New York State Dig Safely must be called at least two (2) full business days before work is to begin. ENVISION will contact this organization to request a mark-out of underground utilities in the proposed boring/ drilling areas. Work will not begin until the required utility clearances have been completed.

Public utilities typically do not mark-out utility lines that are located on private property. Therefore, ENVISION will exercise due diligence and try to identify the location of any private utilities at the FiberMark facility. ENVISION will do this using as-built drawings for the area being investigated, performing a line locating survey if warranted, identifying a no-dig/drill zone and hand digging if there is insufficient data to determine the location of utility lines.

3.3.2 Overhead Utilities

Contact with overhead utilities will be avoided by keeping the boom of drilling equipment a distance of at least 10-feet from energized electric lines of 50 kV or less. An additional

4-inches of clearance will be maintained for every 10kV over 50 kV. This is in accordance with the OSHA rule on Electrical Safety Related Work Practices (29 CFR 1910.333 (c) (3) (iii)).

3.3.3 Moving Equipment

All personnel working in the vicinity of drilling equipment will be required to wear steel-toed boots, hard hats, hearing protection, and safety eyewear. Personnel should not remain in the vicinity of operating equipment unless it is required for their work responsibilities. Those remaining near the drill rig must follow precautions outlined in Section 3.3.5 below. All equipment must have operating backup (reverse direction) alarms.

3.3.4 Vehicular Traffic

Personnel exposed to public vehicular traffic will wear a vest or other garment made of highly visible material.

3.3.5 Drilling Hazards

Use of a drill rig to install monitoring wells will require all personnel in the vicinity of the operating rig to wear steel-toed boots, hardhats, hearing protection and safety eyewear. Personnel should not remain in the vicinity of operating equipment unless it is required for their work responsibilities. Additionally, the following safety requirements must be followed:

- All drill rigs and other machinery with exposed moving parts must be equipped with an operational emergency stop device. Drillers and geologists must be aware of this device. This device must be tested before the job starts and periodically thereafter. The driller and helper shall not simultaneously handle augers unless there is a standby person to activate the emergency stop when necessary.

- The driller must never leave the controls of the rig while the tools are rotating unless all workers are kept clear of rotating equipment.

- A long-handled shovel must be used to clear drill cuttings away from the hole and from rotating tools. Hands and/or feet are not to be used for this purpose.

- A remote sampling device must be used to sample soil cuttings if the drilling tools are rotating or if the tools are readily capable of rotating. Individuals must not reach into or near the rotating equipment to collect samples. If personnel must work near any tools that could rotate, the driller must shut down the rig prior to initiating work.

- Drillers, helpers, and geologists must secure all loose clothing, jewelry and hair when in the vicinity of drilling operations.

- Only equipment that has been approved by the manufacturer may be used in conjunction with drilling equipment and specifically to attach sections of drilling tools together. Pins that protrude excessively from augers shall not be permitted.

- No person may climb the drill mast while tools are rotating.

- No person may climb the drill mast without the use of ANSI-approved fall protection or a portable ladder that meets the requirements of OSHA standards.

- The drill rig must not be moved (operated in a forward or reverse direction) with the mast in a raised position.

3.3.6 Cuts and Lacerations

There is a potential for cuts and lacerations when employees must manually handle equipment with jagged edges or sharp metal pieces. Employees who are involved in these tasks should wear leather or Kevlar ™ gloves.

When using knives or blades, follow these safety guidelines:

- Keep your free hand out of the way.
- Use only sharp blades-dull blades require more force which results in less knife control.
- Use a hooked knife or a utility knife with a self-retracting blade.
- Wear leather or Kevlar™ gloves when using knives or blades.

3.3.7 Noise Hazards

The use of drill rigs will generate noise levels that will require the use of hearing protection in the immediate vicinity. Appropriate earplugs or earmuffs with a NRR greater than 25 will be worn to prevent overexposure.

3.3.8 Temperature Stress

It is not known at this time when the Site investigation activities will be scheduled. As such, this HASP will address the hazards of heat and cold stress.

3.3.8.1 Heat Stress

Early symptoms of Heat-Related Illness:

- Decline in task performance
- Reduced coordination
- Decline in alertness
- Unsteady walk

- Excessive fatigue
- Muscle cramps
- Dizziness
- Nausea
- Headache
- Muscle cramps
- Cold, clammy skin

HOT, DRY, RED SKIN IS A SIGN OF HEAT STROKE WHICH IS A MEDICAL EMERGENCY REQUIRING IMMEDIATE FIRST AID

Susceptibility to Heat Stress Increases Due To:

- Lack of physical fitness
- Obesity
- Increased age
- Lack of acclimation
- Dehydration
- Drug or alcohol use
- Sunburn
- Infection

Measures to Avoid Heat Stress:

- Establish work/rest schedules.
- Set-up a shaded, cool rest area.
- Rotate personnel, alternate job functions.
- Drink water beyond thirst quenching.
- Eat lightly salted foods or drink salted drinks such as Gatorade.
- Start work as early as possible and save the most strenuous work for non-peak hours.
- Avoid double shifts and overtime.

Site personnel should regularly check their pulse by placing their fore and middle fingers on the inside of the wrist below the thumb. This should be done for one (1) minute at the beginning of each rest cycle. If the pulse rate exceeds 110 beats per minute, shorten the next work cycle by one-third and keep the rest periods the same. If the pulse rate still exceeds 110 beats per minute shorten the next work cycle by one-third.

3.3.8.2 Cold Stress: Hypothermia and Frostbite

Symptoms of Cold Stress:

- Reduced or loss of touch sensation (frostbite).
- Redness followed by white patches in affected area (frostbite).
- Uncontrolled shivering and sensation of being cold.
- Slow and slurred speech, drowsiness and collapse.

Susceptibility to Cold Stress Increases due to:

- Windy conditions.

- Wet conditions.
- Age.
- Poor circulation.
- Smoking.
- Alcohol consumption.
- Some medications.
- Exposure to evaporative liquids (e.g. gasoline, alcohol, cleaning fluids).

Measures to Avoid Hypothermia:

- Dress in multiple layers of loose clothing, outer layer should be wind/water proof.
- Wear proper headgear. A head covering in conjunction with a cap and/or earmuffs will greatly add to one's protection in cold and windy locations.
- Listen to, or call for a weather forecast so you can plan ahead.
- Acclimating yourself to the cold outdoors by performing moderate exercise and taking frequent breaks.
- Eating a proper (high carbohydrate) meal before going out and avoiding consumption of alcohol and caffeine. The body burns more calories while maintaining temperature.
- Carrying replacement clothing such as socks, shoes and pants that could become wet.
- Being aware of your surroundings, working with a partner and being informed of the weather. Don't venture out into severe weather.
- Being aware of the conditions that cause hypothermia.

First aid for hypothermia:

- Remove victim from cold into warm environment.
- For frostbite, immerse affected area in warm, not hot, water.
- Wrap victim in warm dry materials (blankets, clothing).
- If possible apply body heat (rescuer wrap him/herself and victim together).
- If mild hypothermia, provide warm liquids.

If symptoms are severe, SEEK MEDICAL ATTENTION

4.0 AIR MONITORING

4.1 Direct Reading Instruments

The following describes the air monitoring that will be conducted during sampling and well drilling activities that could pose an inhalation hazard. The metals found on the Site, while over state cleanup standards, are at low enough concentrations to not cause a significant inhalation hazard. PAHs are present on the Site at the highest concentrations, however even these are relatively low (below percent range). Since there are no PELs established for the PAHs found on the Site and these compounds are bound to soils, the action levels will be based on readings from a real time aerosol monitor. An action level of 5 mg/m^3 will trigger cessation of operations and an evaluation of dust suppression methods. This action level is one-third the OSHA PEL for total nuisance dusts.

4.1.1 Particulate Monitoring

Due to the presence of PAHs in the soil to be sampled, real time monitoring for airborne dust will be performed. The instrument to be used is the MIE Inc. MiniRAM.

The dust monitor will be set-up in the work area to verify that dust control methods are adequate. Periodic measurements downwind of the activities will also be taken. When the alarm is activated, work will stop immediately and dust control measures will be evaluated. Should dust control measures fail to reduce total dust concentrations below 5 mg/m^3, Level C protection will be donned by all personnel in the work area.

4.2 Calibration and Recordkeeping

Equipment used will be calibrated in accordance with the manufacturers' specifications. The calibration of the MiniRAM will be checked at the beginning and end of each day of work. MiniRAM measurements will be recorded on the instrument datalogger and downloaded daily. Data will be cleared from the datalogger before the next day's use. The readings will be recorded every ten (10) minutes as well as the complete sampling time integrated averages.

5.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) will be worn during drilling and sampling activities to prevent onsite personnel from being injured from the physical hazards outlined in Section 3.0. In addition, chemical protective clothing will be worn to prevent direct dermal contact with the contaminants on the Site. The following describes the PPE to be worn for specific tasks.

5.1 Protective Clothing and Other Equipment

Task 1 – Soil Sampling (modified Level D)

Steel toe safety shoes/boots
Safety glasses with side shields
Tyvek™ coveralls*
Inner latex or PVC gloves*
Outer Nitrile gloves*
Disposable boot covers

* If activities involve skin contact with contaminated soil.

Task 2 – Installation of Groundwater Monitoring Wells (modified Level D)

Hard Hat
Steel toe safety shoes/boots
Safety glasses with side shields
Saranex coated Tyvek™ coveralls*
Inner latex or PVC gloves
Outer nitrile gloves
Disposable boot covers
Hearing protection**

* If activities involve skin contact with contaminated water.
** During well drilling operations.

Task 3 – Groundwater Sampling

Steel toe safety shoes/boots
Safety glasses with side shields
Saranex coated Tyvek™ coveralls*
Inner latex or PVC gloves
Outer Nitrile gloves
Disposable boot covers
Hearing protection**

* If activities involve skin contact with contaminated water.

** If generators used to power sampling pumps are stationed nearby.

5.2 Respiratory Protection

Respiratory protection will be worn if visible dust is generated. Particulate respirators will be worn. This may be an R or P series filtering facepiece with 99.97% efficiency or a full-face respirator with a cartridge containing a HEPA filter.

Respiratory protection should also be donned if odors become objectionable at any time or if irritation of the respiratory tract is noticed.

All employees who are expected to wear respiratory protection must have successfully passed a quantitative fit test within the past year for the brand, model and size respirator they plan to wear during the proposed activities.

5.3 Other Protective Equipment

The following additional safety items will be available at the Site:

- Portable hand held eyewash bottles (in contamination reduction zone)
- First aid kit (in contamination reduction zone)
- Fire extinguisher (in exclusion zone)

6.0 SITE CONTROL

6.1 Work Zones

To prevent both exposure of unprotected personnel and migration of contaminated materials due to tracking by personnel or equipment, work areas along with PPE requirements will be clearly identified. ENVISION designates work areas or zones in accordance with the "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities" (NIOSH/OSHA/USCG/EPA.). They recommend the areas surrounding each of the work areas to be divided into three (3) zones.

- Exclusion or "hot" zone
- Contamination Reduction Zone (CRZ)
- Support Zone

These Site control zones can be found on Figure 1.

6.1.1 Exclusion Zone

The exclusion zone for each soil sampling location will be the area 10-feet around each boring.

A radius around the drill rig that is at least equal to the height of the drill rig mast will be considered the exclusion zone during well installation. A minimum 20-foot radius will be maintained where possible.

A radius of 10-feet around each monitoring well will be the exclusion zone during well development, purging and sampling. This radius may be increased if air monitoring reveals that Level C respiratory protection is required during these activities.

6.1.2 Contamination Reduction Zone (CRZ)

Two (2) decontamination areas will be set up. One (1) will be in the parking area just northeast of TPE-3 and the other will be located north of SB-12.

6.1.3 Support Zone

A support area will be set up adjacent to each contamination reduction/decontamination zone.

6.2 Safety Practices

The following procedures are designed to further minimize the risk of exposure and injury due to onsite activities:

- The buddy system will be used at all times by all field personnel in the exclusion zone. No individual is to perform field work alone. Visual, voice or radio communication will be maintained at all times.

- Whenever possible, contact with contaminated or potentially contaminated material will be avoided. This includes walking around puddles, discolored surfaces and contaminated soil, avoiding kneeling or setting equipment on the ground, and protecting equipment from contamination by bagging.

- There will be no eating, drinking, smoking, chewing gum or tobacco or any other practice that increases the probability of hand-to-mouth transfer or ingestion of contamination in the exclusion or contamination reduction zone (CRZ.)

- All personnel must pass through the CRZ to enter or exit the exclusion zone.

- At a minimum, an emergency eyewash station is to be located on the clean side of the CRZ area. An emergency deluge shower/spray shall be kept in the same area for work in Level C and above.

- All personnel shall wash hands, arms and face after leaving the work area and before eating, drinking and smoking.

- All supplied breathing air shall be certified as grade D or better (if applicable).

- Fire extinguishers will be on the Site for use on equipment or small fires only.

- An adequate supply of cool drinking water (at least 1-gallon per person) with an ample supply of disposable cups shall be present for each day of Site operations and be readily available to Site personnel.

- Beards or other facial hair that interfere with respirator fit are prohibited in the exclusion zone.

- The use of alcohol or illegal drugs is prohibited during the conduct of field operations.

- All equipment must be decontaminated or properly discarded before leaving the Site.

7.0 DECONTAMINATION

7.1 Personal Decontamination

Proper decontamination is required of all personnel before leaving the Site. Decontamination will occur within the contamination reduction zone (CRZ.)

The steps for Level C decontamination are as follows:

Equipment drop
Outer boot and outer glove wash
Outer boot and outer glove rinse
Outer boot removal
Outer glove removal
Suit removal
Respirator removal
Inner glove removal

Disposable PPE will be removed and placed in lined garbage pails. Final disposal of PPE will be in accordance with applicable regulations. Respirators will be washed and rinsed after each day's use. For modified Level D protection the above steps will be followed except for the respirator removal step.

7.2 Sampling Equipment

Disposable items will be placed in lined garbage pails. Reusable items will be wiped with clean cloths or paper towels, washed with soap and water, and rinsed with clean water. These procedures are intended only to minimize the potential spread of contamination. Decontamination procedures to prevent sample contamination or cross-contamination will be addressed elsewhere.

7.3 Equipment Decontamination

Excavation and drilling equipment will be decontaminated in the CRZ. Contamination will be removed by steam cleaning equipment on top of poly-sheeting. The poly-sheeting will be drummed for offsite disposal.

8.0 MEDICAL SURVEILLANCE AND TRAINING REQUIREMENTS

8.1 Medical Surveillance

All personnel performing activities covered by the HASP must be active participants in a medical surveillance program that complies with 29CFR 1910.120(f). Each individual must have completed an annual medical examination and/or initial baseline examination within the last year prior to performing any work on the Site covered by the HASP.

8.2 Health and Safety Training

All personnel performing activities covered by this HASP must have completed the training requirements specified in 29 CFR 1910.120 (e). Each individual must have completed an initial 40-hour health and safety training course and a current 8-hour refresher course if the initial training was completed more than one (1) year prior to Site activities.

All contractor personnel performing Site activities must submit copies of training certificates and proof of enrollment in a medical surveillance program to the ENVISION Project Manager.

8.3 Pre-Work Briefing

The SSO will conduct a pre-work briefing before Site activities begin. HASP acknowledgement forms will be collected at this meeting. Short safety meetings will be conducted as needed throughout the duration of this project. Attendance at the pre-work briefing is mandatory and will be documented by the SSO on the Health and Safety Plan Pre-Work Briefing Attendance Form (Attachment B).

9.0 EMERGENCY RESPONSE

9.1 Employee Training

Employees will be instructed in the Site-specific aspects of emergency evacuation. Onsite updates are required anytime escape routes or procedures are modified or personnel changes are made.

9.2 Emergency Signals

The emergency communication system that will be used in most situations will be direct verbal communication. In some situations, direct verbal communication will not be possible. Should an emergency occur when voices cannot be clearly perceived above ambient noise levels or when personnel are working in different areas of the Site, personnel will be alerted via two-way radios, air horns or other devices. The signals using an air horn are as follows:

Three (3) air horn blasts: Indicates that all personnel should leave the exclusion zone
Continuous horn blast: Indicates personnel injury in the exclusion zone

Cellular phones will be used to contact offsite emergency personnel such as EMS.

9.3 Escape Routes and Procedures

In the event of an emergency, such as fire, explosion, toxic gas release, etc., personnel will leave the Site through the CRZ and meet at the support zone. Alternate escape routes and assembly areas will be established to be used in the event escape through the CRZ is not possible. These routes and assembly areas will be reviewed during the pre-work briefing.

9.4 Personnel Injury or Exposure

Emergency first aid shall be administered onsite as necessary. In the event an injury or illness requires further medical care, the SSO will accompany the injured person to the hospital and will remain with the person until release or admittance is determined. The SSO will relay all relevant medical information to the onsite project manager and the Health and Safety Manager.

9.5 Emergency Decontamination Procedures

If decontamination can be performed without aggravating injuries or delaying life-saving treatment, protective clothing will be washed and rinsed or cut off personnel.

If decontamination cannot be done, the victim will be wrapped in blankets or plastic to reduce contamination of other onsite personnel and rescue workers. If the worker is suffering from a neck or back injury, the person will not be moved. The SSO must inform the responding emergency medical personnel about the nature of the Site and the injury. If the responder feels that the PPE can be cut away from the victim, this will be done on the Site.

9.6 Designation of Responsible Parties

The SSO is responsible for initiating emergency response actions. In the event the SSO can not fulfill this duty, the project manager or Site supervisor will take charge. The SSO is responsible for identifying all ENVISION personnel and ENVISION subcontractor personnel on the Site at all times and to ensure that they have exited the Site during an evacuation event.

9.7 Emergency Contacts

See Table 2 for a list of emergency contacts and directions to the local hospital.

TABLE 2

EMERGENCY CONTACTS

Fire	**911**
Police	**911**
Ambulance	**911**
HazMat Team	**NA**
Hospital:	**Samaritan Medical Center** **830 Washington Street** **Watertown, NY** **(315) 785-4000**

Directions:

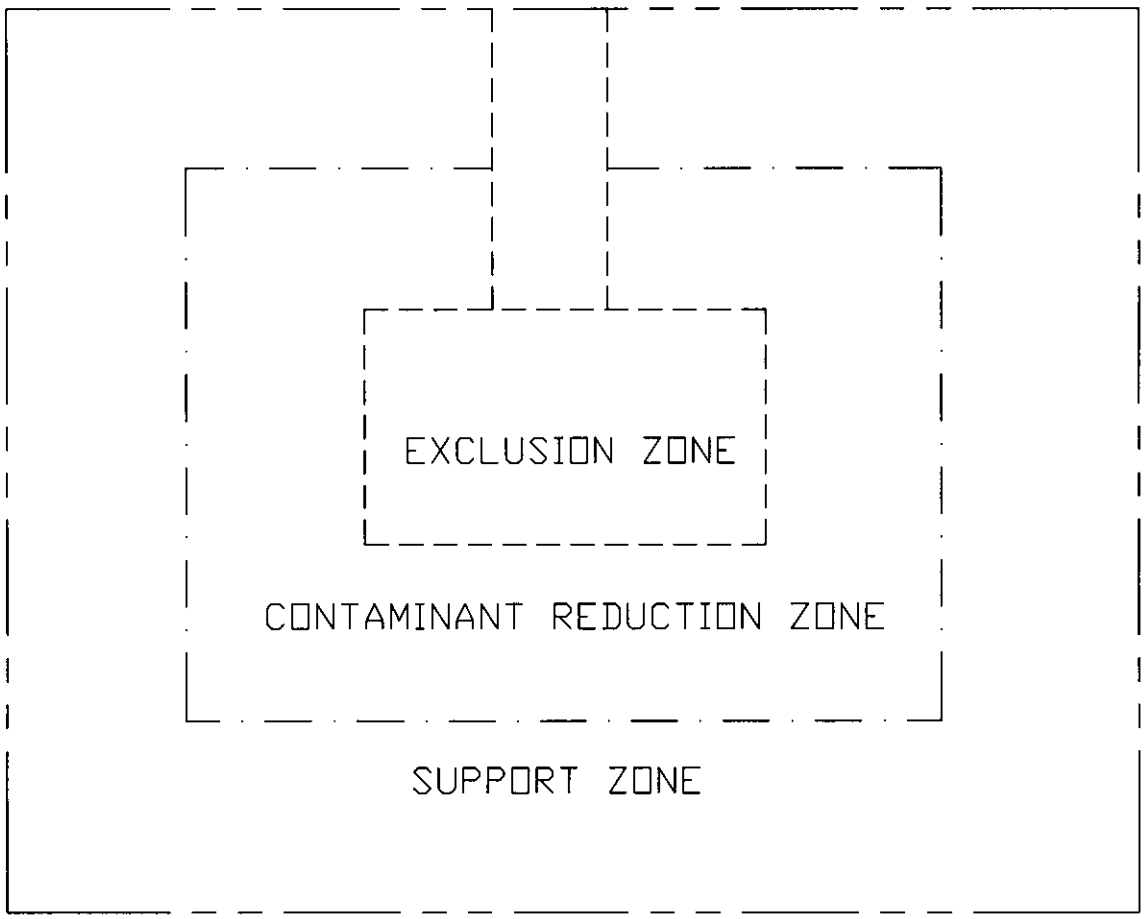
1) Turn right on Bridge Street
2) Turn left on NY 12F
3) Turn right on NY 3/North Massey St./US 11
4) Continue on South Massey St/US 11
5) South Massey St becomes Holcomb St/US 11
6) Turn left onto Paddock St/US 11
7) Turn right onto Washington St/US 11

See Figure 2, which illustrates the route to the hospital.

ENVISION PROJECT REPRESENTATIVES:

Mark Roman	**(732) 886-1664**
Leslie Reid-Green	**(908) 806-7177**

FIGURES



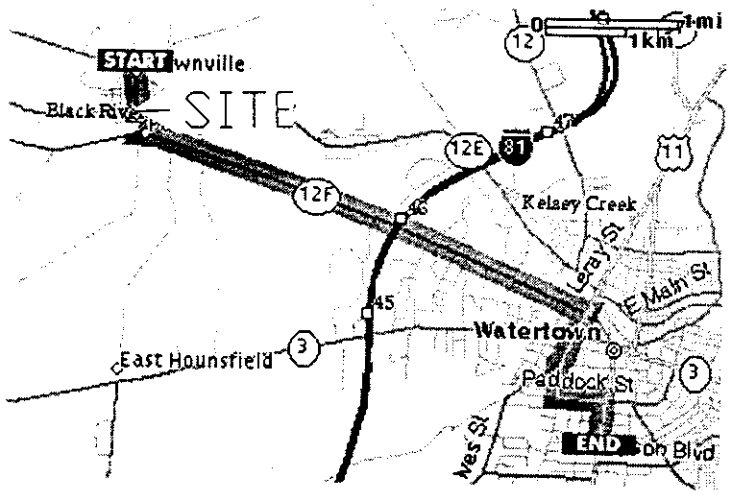
WORK ZONE MAP

Envision Environmental, Inc.
21 Priscilla Lane, Howell, NJ 07731
Phone: 732-886-1664 Fax: 732-886-2925

FIBERMARK DSI
Formerly REXAM DSI
BRIDGE STREET
BROWNVILLE, N.Y.

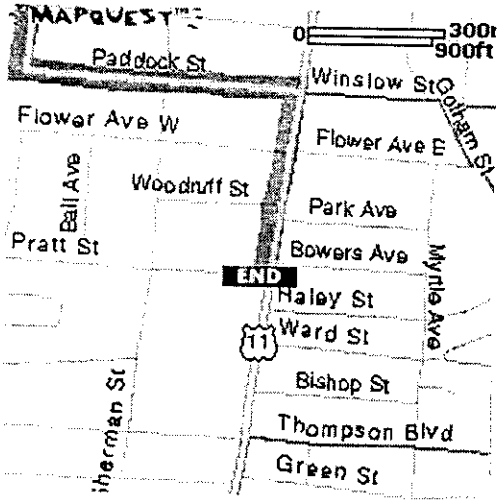
Revisions:

Project No. 1500.REX
Date: 07/15/02
Scale: As Shown
Drawing No. FIGURE 1



DESTINATION:

830 Washington St
Watertown, NY
US



Envision Environmental, Inc.
21 Priscilla Lane, Howell, NJ 07731
Phone: 732-886-1664 Fax: 732-886-2925

HOSPITAL ROUTE MAP
FIBERMARK DSI
Formerly REXAM DSI
BROWNVILLE, NEW YORK

Revisions:

Project No. 1500.REX
Date: 07/17/02
Scale: As Shown
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ATTACHMENT A

Health and Safety Plan Acknowledgement Form

HEALTH AND SAFETY PLAN
ACKNOWLEDGEMENT FORM

I have received a copy of the Health and Safety Plan prepared for the FiberMark DSI (former REXAM DSI) facility in Brownville, New York. I have read and understood its contents and I agree to abide by its requirements.

Name	Signature	Affiliation	Date

ATTACHMENT B

Health and Safety Plan Pre-Work Briefing
Attendance Form

Health and Safety Plan Pre-Work Briefing Attendance Form

Sampling and Remedial Activities
FiberMark DSI Facility
Brownville, New York

Briefing Conducted By:_____

Date Performed:_____

Printed Name	Signature	Affiliation

APPENDIX 4

Implementation Schedule

PROPOSED IMPLEMENTATION SCHEDULE

For

FiberMark DSI, Inc.
(Formerly REXAM DSI INC.)
Bridge Street
Brownville, NY 13615

VCP Site No. V00525-6
Index No. B6-0610-02-03

As specified by NYSDEC, investigative activities will not commence until after ENVISION has received written approval for the SIW from NYSDEC.

Estimated Time of Activity	Activity
Within two (2) months after receipt of NYSDEC approval	Conduct soil sampling and monitoring well installation
Within three (3) months after receipt of NYSDEC approval	Conduct groundwater sampling
Within six (6) months after receipt of NYSDEC approval	Investigation Final Report submitted to NYSDEC (subsequent activities and schedule will be based on results from this investigation)

(Schedule contingent on contractor schedules, weather conditions, and Site accessibility)

ENVISION ENVIRONMENTAL, INC.

DISCUSSION TOPICS

June 18, 2002 Meeting

NYSDEC and NYSDPH
FiberMark DSI (Former REXAM DSI) Facility
Brownville, Jefferson County

Voluntary Cleanup Program

I. Introduction

II. Review Work to Date

- Conducted ASTM Phase I Environmental Site Assessment (ESA) as part of potential sale of property in mid-2000.
- Conducted Phase II ESA in late-2000 on Recognized Environmental Conditions (RECs) identified during Phase I ESA.
- Facility sold by REXAM to FiberMark in mid-2001. Part of purchase agreement was for REXAM to entire the NYSDEC Voluntary Cleanup Program (VCP) to address issues identified in the Phase I and II ESAs. VCP application filed early 2002.

III. Phase I/Phase II REC Activities (Site Walk-through) – The following reviews the Phase I identified RECs, which were addressed during the Phase II activities. Recommendations for proposed additional activities are in parentheses.

21 Priscilla Lane, Howell, NJ 07731 • Phone: 732-886-1664 Fax: 732-886-2925

Main Plant Interior

1st Floor:

- Raw Material Storage Area – Check integrity of floor trench drainage system in this area. Floor trench found to be inactive; no bedrock exposed; 3-inch diameter pipes drain trench to 2nd floor. (Clean trench of dirt and pulp; seal drain pipes).

- Off Line Coater Area – Check integrity of floor trench drainage system in this area. Trench found to be concrete lined and structurally sound. (No further action).

- Dye Storage Area – Adjacent to Boiler Room. Minor floor cracks found in area. (Reseal floor).

2nd Floor:

- Paper Machine Y-Shaped Floor Trench – Check integrity of floor trench drainage system in this area. Trench found to contain concrete sides with bedrock bottom. Portions of floor of the trench were not intact. (Clean trench and line with concrete).

- Former Oil Room – Oil staining on limestone wall – historical issue caused by leaking gear boxes associated with former water wheels used onsite decades ago. Collected rock chip; analyzed for VOC+15, BN+15, and PCBs. No VOCs or PCBs above TAGM generic soil cleanup objectives. PAHs typically associated with petroleum-based material (coal, coal ash, oil, asphalt, etc.) reported greater than TAGM generic objectives. No significant vertical fractures in limestone wall. Wall is part of the structure of the building; cannot be removed. (Pressure wash wall and seal with epoxy paint/sealant).

3rd Floor:

- Floor Sump – Check integrity of floor sump in this area. Sump constructed of poured concrete and structurally sound. (No further action).

- Electrical Room – Floor trench near old coal-fired boiler area. Trench constructed of concrete and limestone. Not intended to convey liquids. Trench is a depressed area that contains a stormwater conveyance pipe. No process liquids run through pipe. (No further action). Floor drainage hole - drains to floor area located below – 4th floor. (Seal floor hole).

- Limestone Wall Oil Staining – Southeast portion of area. Collected rock chip; analyzed for VOC+15, BN+15, and PCBs. No BNs, VOCs or PCBs above TAGM generic soil cleanup objectives. Elevated BN TICs. No significant vertical fractures

in limestone wall. Wall is part of the structure of the building; cannot be removed. (Scrap tar-like curst off wall, pressure wash wall and seal with epoxy paint/sealant).

- AST Bunker – Collected rock chip of wall oil staining; analyzed for VOC+15, BN+15, and PCBs. No VOCs or PCBs. PAHs typically associated with petroleum-based material (coal, coal ash, oil, asphalt, etc.) reported greater than TAGM generic objectives. (Pressure wash wall and seal with epoxy paint/sealant).

4th Floor:

- Floor Sumps – Check integrity of three (3) floor sumps. All sumps appeared to be structurally sound. All contained concrete sides and bottoms, except for the corner sump, which appeared to have a bedrock bottom. (Seal bedrock bottom with a sealant).

- Elevator Shaft – Check integrity of the bottom of the elevator shaft. Shaft found to be sound with a concrete bottom free of cracks. Silt buildup on bottom of shaft (1 – 2") was sampled; analyzed for VOC+15, BN+15 and PCBs. No VOCs or PCBs. One (1) PAH reported above TAGM generic objectives (associated with oil). (Remove silt, properly dispose).

- Oil Staining on Limestone Wall – Collected rock chip; analyzed for VOC+15, BN+15, and PCBs. No VOCs or PCBs above TAGM generic soil cleanup objectives. PAHs typically associated with petroleum-based material (coal, coal ash, oil, asphalt, etc.) reported greater than TAGM generic objectives. No significant vertical fractures in limestone wall. Wall is part of the structure of the building; cannot be removed. (Pressure wash wall and seal with epoxy paint/sealant).

Warehouse Interior

- Sealed Floor Drain to Philomel Creek – Floor drain filled with concrete years ago. Concrete had slight crack in it. (Reseal concrete).

Warehouse Exterior

- Discharge Point of Former Floor Drain – Sample collected below former discharge point of floor drain noted above. Sample (EB-6) analyzed for VOC+15 and BN+15. No VOCs or BNs reported above TAGM generic soil cleanup objectives. Elevated BN TICs reported. (Since this area receives stormwater sheet flow from offsite sources, including asphalt; collect upgradient soil sample from creek and analyze for same parameters).

Main Plant Exterior

- Dumpster Area – Collected soil sample below crack in concrete pad; analyzed for VOC+15, BN+15 and PPM. No VOCs or BNs. PPM (As, Be, Ni) reported above TAGM generic soil cleanup objectives. Boring contained coal ash, cinders etc. to 16-feet below grade. (See note on background conditions). Catchbasin sediment sample collected; analyzed for VOC+15, BN+15 and PPM. No VOCs reported above TAGM generic soil cleanup objectives. One (1) PAH and PPM (Be, Cr, Zn) reported above TAGM generic objectives. Catchbasin receives stormwater sheet runoff from asphalt and roadway. (No further action).

- Boiler Room Driveway Sump – Check integrity of sump. Sump found to be sound. (Remove sediment from sump and properly dispose).

- Historic Fill – Northern portion of Site has been filled in over the years. This area formerly contained water flumes and coal storage bunkers. In 1993, the NYSDOT filled in the area with construction debris. According to the NYSDOT, no contaminated material was used (hazardous waste, industrial waste, or petroleum products). Two (2) soil borings and a test pit were conducted in this area (EB-3, EB-4 and TPE-3). Soil samples collected were analyzed for VOC+15, BN+15 and PPM. Boring EB-3 was conducted to refusal on bedrock (24-feet below grade); EB-4 was conducted to approximately 17.5-feet below grade; and TPE-3 was excavated to approximately 12-feet below grade. Evidence of coal ash, cinders, construction debris was detected in the sample locations. EB-3 was finished off as a temporary monitoring well, no groundwater entered the well. No VOCs were reported above the TAGM generic objectives. PAHs and metals generally associated with coal, ash, cinders, etc. were detected above the TAGM generic soil cleanup objectives. (See note on background conditions).

- Former No. 6 Fuel Oil Spill/Former Water Flume Area – A release from a No. 6 fuel oil pipe occurred in 1992 on the north side of the facility. The area of the release was investigated in 1992/93. Soil was excavated and a monitoring well (MW-1; 75-feet deep) was installed. A stormwater drainage pipe is located within the former water flume on the north side of the facility. The flume area may have received oil from the 1992 release. The bedding material around the stormwater pipe was inspected by excavating a trench and collecting soil samples. No visual evidence of released oil was observed. Two (2) soil samples were collected and analyzed for VOC+15 and BN+15. No VOCs were detected above TAGM generic objectives. PAHs were detected above the TAGM generic objectives. A soil boring was conducted near the release area; soil samples were analyzed for VOC+15, BN+15 and PPM. MW-1 was also sampled and analyzed for VOC+15, BN+15 and PPM. No exceedances above the respective groundwater quality criteria were detected in the groundwater sample. PAHs and metals were reported above the TAGM generic cleanup objectives in the soil samples. It appears that the 1992 fuel oil release was

appropriately addressed. No visual or olfactory evidence of oil was noted. (See note on PAH and metals background conditions).

- Wastewater Pipeline – An aboveground pipeline conveys wastewater to the adjoining Brownville Wastewater Treatment Plant. In the past, the pipeline at times overflowed onto the underlying pavement. A soil sample was collected below the cracked portion of the pavement and analyzed for VOC+15 and BN+15. No VOCs were reported above the TAGM generic objectives. PAHs were reported above the TAGM generic objectives. This boring was completed as a temporary monitoring well. The groundwater sample from the well was analyzed for VOC+15, BN+15 and PPM. No VOC or BN compounds were detected. A concentration of lead was reported to exceed the NYSDEC Water Quality Standard. (Soil concentrations are associated with background conditions; a true monitoring well will be installed and sampled for lead – total and dissolved).

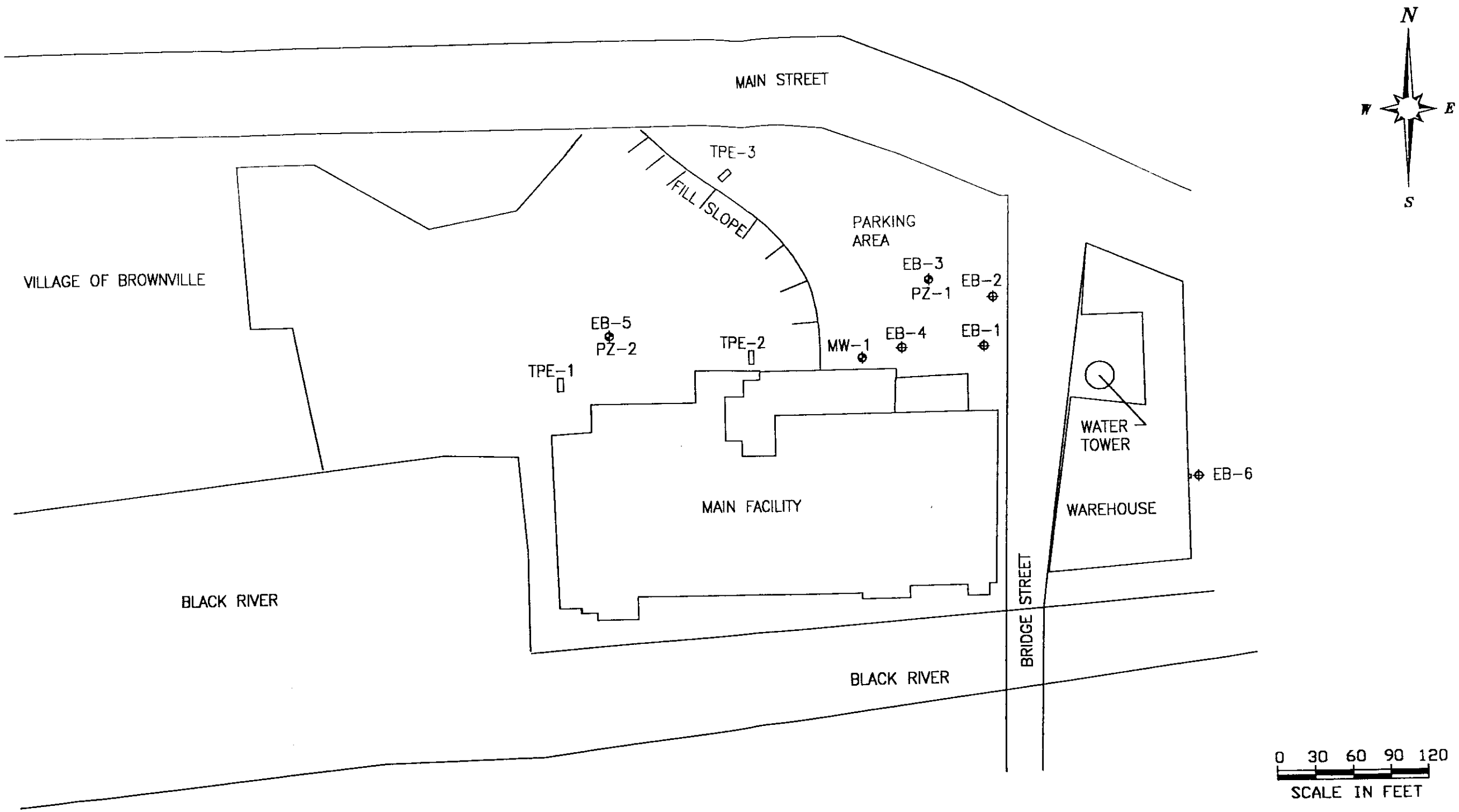
- PAH and PPM TAGM Exceedances – The noted PAH and PPM compounds reported to exceed the respective generic TAGM cleanup objectives are believed to be associated with the historic fill (coal, coal ash, cinders, etc.) found across the northern portion of the Site. These concentrations should be considered as background conditions onsite. Site-specific cleanup objectives should be developed by evaluating the distribution of the contaminants in the fill material and groundwater.

IV. Discuss Workplan Approach, Format, Due Date, etc.

V. Discuss Department Approved Notice of Agreement

VI. Closing

FIGURES



SITE PLAN

SOIL BORING, TEST PIT, AND GROUND-WATER WELL LOCATION MAP

⊕ EB-1 = SOIL SAMPLE LOCATION
▯ TPE-1 = TEST PIT LOCATION
⊕ PZ-1 & MW-1 = PIEZOMETER & MONITORING WELL LOCATION

Envision Environmental, Inc.
21 Priscilla Lane, Howell, NJ 07731
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REXAM DSI

BRIDGE STREET
BROWNVILLE, NY

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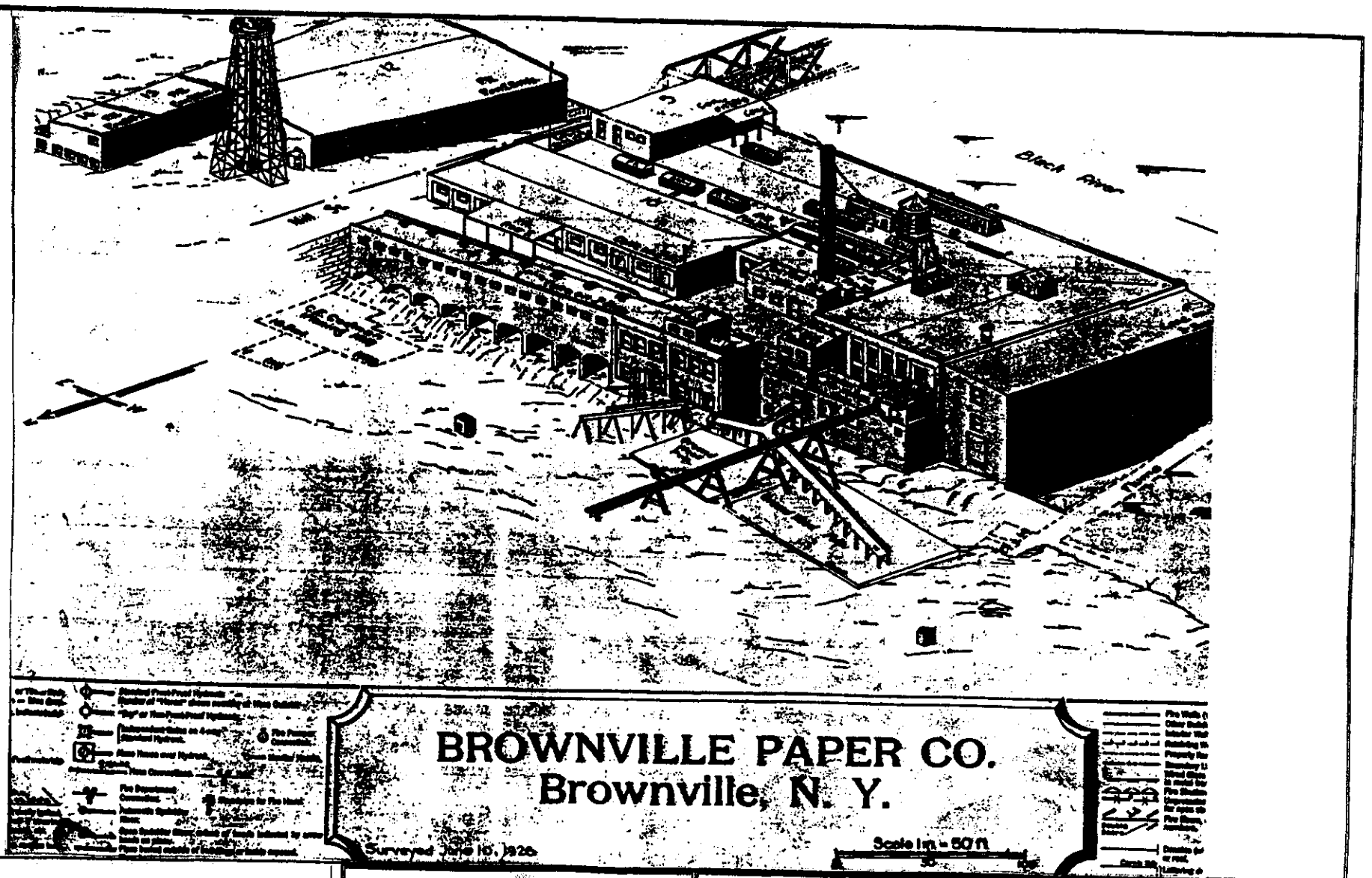
Project No.	1500.REX
Date:	09/18/00
Scale:	As Shown
Drawing No.	FIGURE 1



1926 FIRE INSURANCE MAP

Envision Environmental, Inc.
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REXAM DSI

BRIDGE STREET
BROWNVILLE, NY

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Project No. 1500.REX
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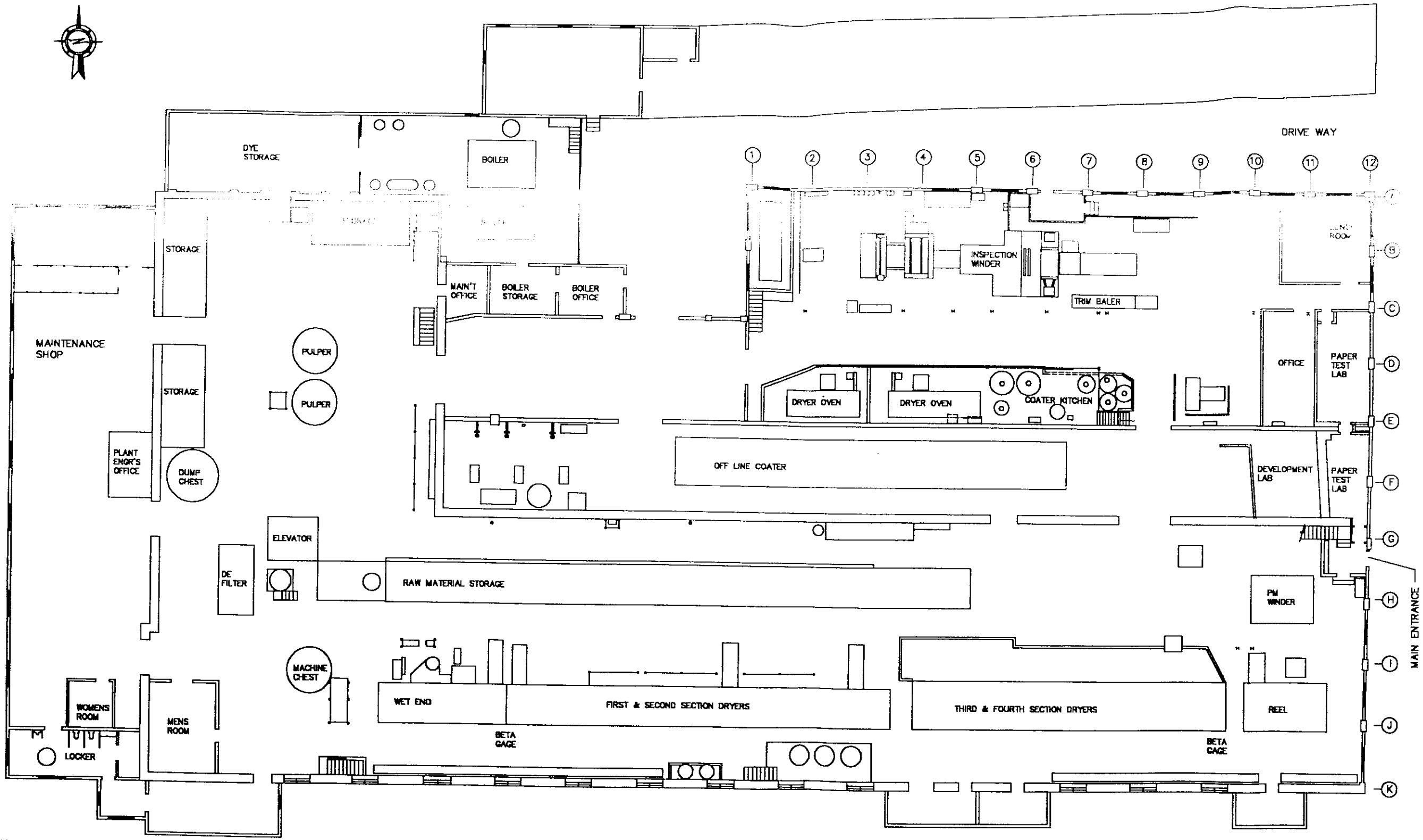
FIGURE 2



FIRST FLOOR PLAN

Envision Environmental, Inc.
21 Priscilla Lane, Howell, NJ 07731
Phone: 732-886-1664 Fax: 732-886-2925

REXAM DSI

BRIDGE STREET
BROWNVILLE, NY

Revisions:

Project No. 1500.REX
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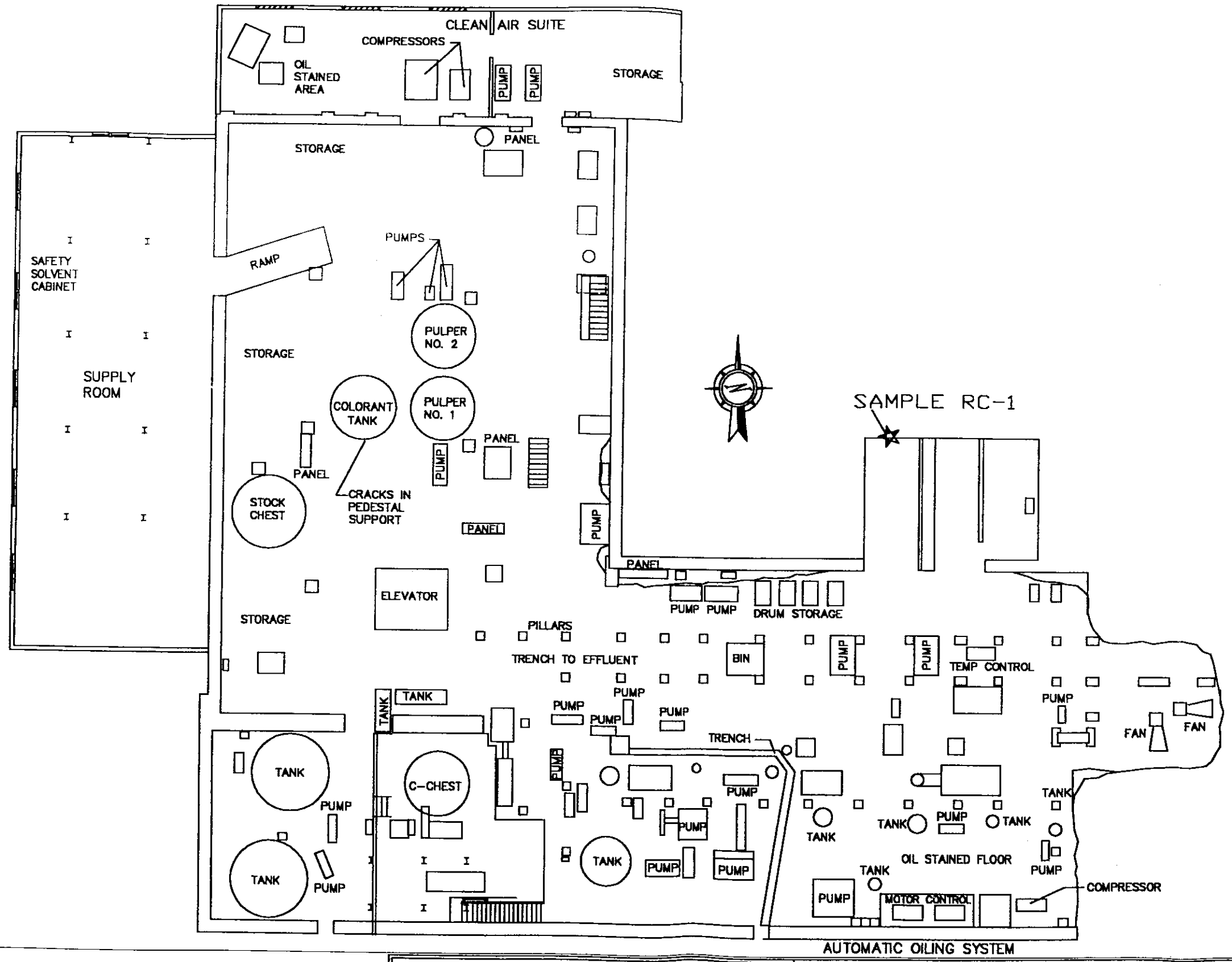

SECOND FLOOR PLAN

SAMPLE LOCATION MAP

★ RC-1 = ROCK CHIP SAMPLE

Envision Environmental, Inc.

21 Priscilla Lane, Howell, NJ 07731

Phone: 732-886-1664 Fax: 732-886-2925

REXAM DSI

BRIDGE STREET
BROWNVILLE, NY

Revisions:

Project No.	1500.REX
Date:	09/18/00
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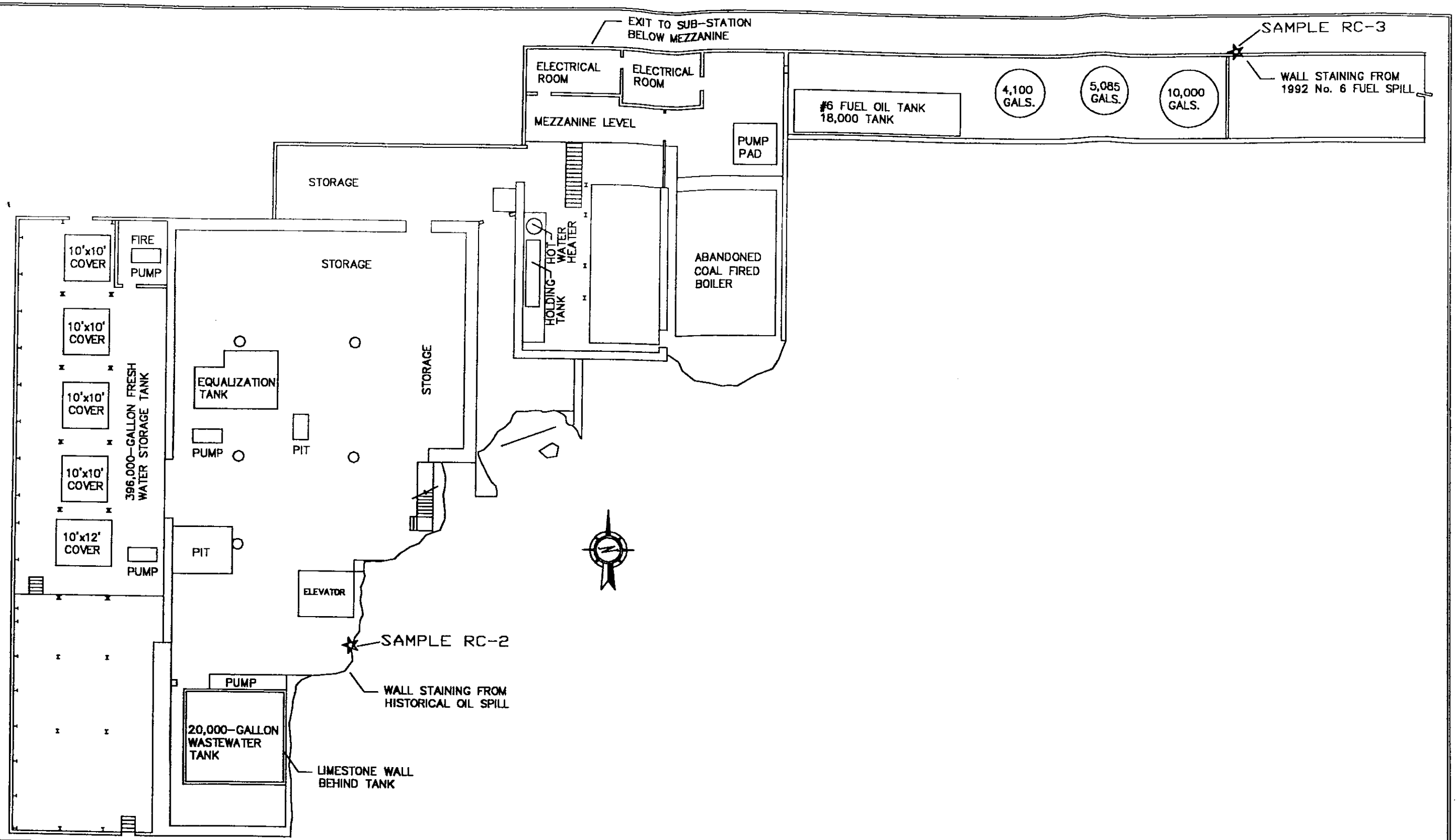

THIRD FLOOR PLAN

SAMPLE LOCATION MAP

☆ RC-1 = ROCK CHIP SAMPLE

Envision Environmental, Inc.
21 Priscilla Lane, Howell, NJ 07731
Phone: 732-886-1664 Fax: 732-886-2925

REXAM DSI

BRIDGE STREET
BROWNVILLE, NY

Revisions:

Project No.	1500.REX
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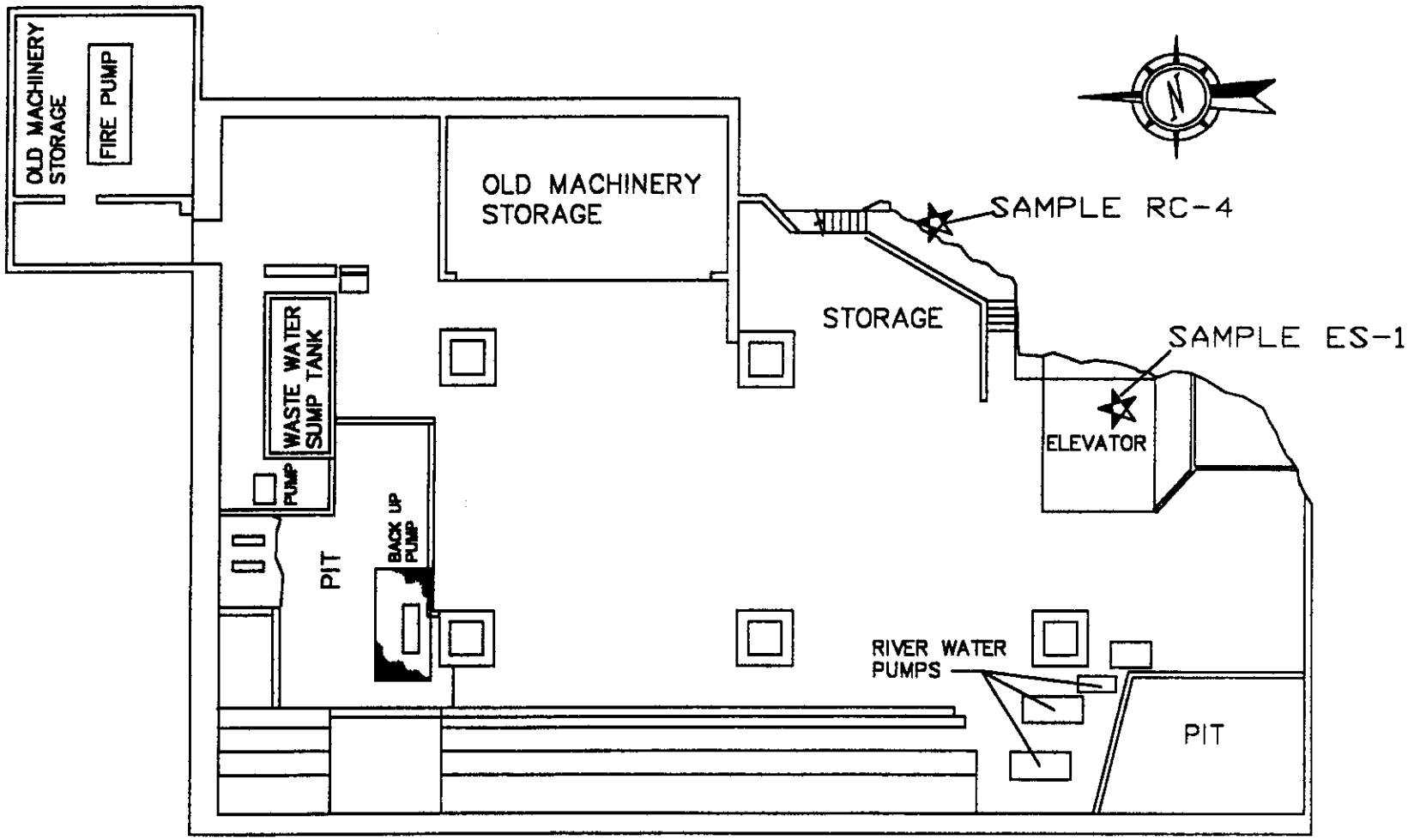

FOURTH FLOOR PLAN
SAMPLE LOCATION MAP
RC-1 = ROCK CHIP SAMPLE
ES-1 = ELEVATOR SAHFT SAMPLE

Envision Environmental, Inc.
21 Priscilla Lane, Howell, NJ 07731
Phone: 732-886-1664 Fax: 732-886-2925

REXAM DSI

BRIDGE STREET
BROWNVILLE, NY

Revisions:

Project No. 1500.REX
Date: 09/18/00
Scale: As Shown
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FIGURE 6

REXAM (Fiber Mark Inc.)
Bridge Street
Brownville, NY 13615
315-782-5800

Tax Map: Plate 73.72, Block 2, Lot 38
Deed 1258-146
Tax Files indicate Decorative Specialities International Incorporated

Voluntary Cleanup # V-00525-6
T&A Code # D661

Contacts:

Project Manager	Peter S. Ouderkirk, P.E.	315-785-2513 / 315-785-2422 Fax
Program Supervisor	Darrell M. Sweredoski, P.E.	315-785-2513 / 315-785-2422 Fax
Central Office VCP Cord.	Mike Komoroske, P.E.	518-402-9774
Central Office VCP Bureau	Dave Smith	518-402-9768
Division of Fish & Wild	Rebekah Quail	518-402-8978
Project Attorney	Maura Desmond	716-851-7050
Consultant Contact	Mark Roman	732-886-2925
NYSDOH Contact:	John Sheehan	518-402-7850

Application Received:	O2/21/02
Enforcement Memo Sent:	03/06/02

Consultant: Envision Environmental Inc.
21 Priscilla Lane
Howell, NJ 07731
732-886-1664
732-886-2925
Mark P. Roman
markroman@envisionenvironmental.com

Reports Submitted: Phase I Environmental Assessment Report - August 2000
Phase II Environmental Assessment Report - December 2000

April 16, 2002

REXAM

DMS:

Pursuant to your questions on REXAM, please note the following:

1. I spoke to Mike Rivera, he will assign a person once the agreement is signed.

2. Rebekah Quail has been listed as the contact person for F&W. Given the proximity to the Black River and the Philomel Creek, their input will be crucial.

3. I have not prepared a memo to BHSC on Registry Status. I would like to talk about this.

4. EQ programs have given their input on all legal issues and have signed off with their consent.

5. Maura indicated that the application is accepted when the client is mailed the VCA. It goes as a package.

6. Issues are as follows:
   A. 1st floor: old floor drains clogged with paper pulp and debris;

   B. 2nd floor: Oil room - stained walls have shown 0.420 ppm PCBs, chrysene at 2000 ppb, benzo (a) pyrene at 310 ppb. Base Neutral Tentatively Identified Compounds have been found at 209,600 ppb. An oil seep was noted on one of the limestone walls which is a structural wall;

   C. 3rd floor: Significant oil staining and crusts are located on the limestone outcrop along the southeast wall of the elevator shaft. Base Neutral Tentatively Identified Compounds have been found at 5,540,000 ppb from a rock chip sample. A second rock chip sample from the north wall of the above ground tank storage room was found to contain Benzo(a)anthracene at 1,800 ppb, benzo (b) fluoranthene at 1,300 ppb and benzo (a) pyrene at 1,500 ppb. Base Neutral Tentatively Identified Compounds have been found at 188,000 ppb.

   D. 4th Floor: At the base of the elevator shaft a sample was taken and showed benzo(a)pyrene at 230 ppb. Base Neutral Tentatively Identified Compounds were found at 60,400 ppb. At the base of the stairs near the elevator shaft a rock sample was taken and showed benzo(a)pyrene at 5000 ppb. Base Neutral Tentatively Identified Compounds were found at 510,000 ppb.

   E. Dumpsters Area: Catch Basin sediments contained benzo(a)pyrene at 160 ppb and Base Neutral Tentatively Identified Compounds were found at 137,200 ppb.

   F. Boiler Room Sump: Nothing to report

   G. Historic Fill to the north of the plant: From Soil Boring EB-3 the following were found: Benzo(a)anthracene at 3200 ppb, chrysene at 3700 ppb,

benzo(b)fluroanthene at 4000 ppb, benzo(k)fluroanthene at 1700 ppb, benzo(a)pyrene at 2800 ppb and dibenzo(a,h)anthracene at 260 ppb. Base Neutral Tentatively Identified Compounds were found at 48,500 ppb. From Soil Boring EB-4 the following were found: Benzo(a)anthracene at 1300 ppb, chrysene at 1300 ppb, benzo(b)fluroanthene at 2000 ppb, benzo(a)pyrene at 1300 ppb and dibenzo(a,h)anthracene at 81 ppb. Base Neutral Tentatively Identified Compounds were found at 7130 ppb. Elevated levels of Zinc and beryllium were also reported above eastern U.S. background levels. From Test Pit TP-3 beryllium was found above eastern U.S. background levels

H. Old Water Flume: Benzo(a)Anthracene at 310 ppb, benzo(a)pyrene at 260 ppb, and Base Neutral Tentatively Identified Compounds were found at 2420 ppb.

I. Previous Fuel Oil Spill Area:

J. Wastewater Pipeline: benzo(a) anthracene at 240 ppb and benzo(a)pyrene at 180 ppb.

K. Warehouse Exterior: Sediment in pipe contained Base Neutral Tentatively Identified Compounds at 259,400 ppb.

Predominantly the there have been no VOC's and PCBs identified on site. Some low level metals have been identified but these are well within our normal background levels for industrial sites. The base neutral compounds are focused on about 6 compounds and then there are the Base Neutral Tentatively identified compounds which range from ND to 5,540,000 ppb. Most samples of our from fill or rock chips. There appears to be some oils seepage in the basement area but it is from a load bearing wall 4 floors below grade. There is no areas of identified sources or what I would call consequential amounts of waste. Most appears to be residuals which are in the form of stained walls, elevator shaft bottoms, or small amounts of sediments. The fill area is comprised of the Court Street Bridge Demolition Site materials which overlays historic deposits of coal and ash.

7.0 CONCLUSIONS / RECOMMENDATIONS

Based upon the Phase II activities and the results of the soil and groundwater samples, ENVISION recommends the following:

Main Plant Interior

REC - 1: 1st Floor

An inactive floor trench drain is located in the Raw Material Storage Area north of the paper machine. The drain previously collected liquids and drained to the wastewater pre-treatment system on the 2nd floor. The trench was full of paper pulp and dirt and could not be thoroughly inspected. The base of the trench was solid where inspected. There was no bedrock exposed in the trench. Two (2) 3" dia. drain pipes were located in the base of the drain that discharged to the open air above the 2nd floor. The paper pulp and dirt should be removed from the trench and the two (2) drain pipes to the 2nd floor should be sealed. If any accidental spillage of raw materials occurs on the 1st floor, sealing these drain pipes will prevent the spilled material from draining to the 2nd floor.

An active floor trench drain was located on the north side of the Off Line Coater, near the Coater Kitchen. The trench is concrete lined throughout its length and appeared to be structurally sound. No further action is recommended regarding this floor trench.

REC - 2: 2nd Floor

The "Y"-shaped trench drain system on this floor is used to drain fluids from the paper machine to the 3rd floor. The sides of the trench are constructed of concrete but the bottom of the trench is bare limestone bedrock. The concrete walls of the trench appear solid but the floor of the trench is broken in the area where the three (3) branches of the system converge. A hole approximately 18" deep is present with loose rock in the bottom at the west end of the east branch of the trench. The east end of the west branch has holes 4 - 6" in depth in the bedrock. The remaining areas of the trench system appear solid. ENVISION recommends that the trench be drained, cleaned and the entire trench be lined with concrete.

The former Oil Room is located in the northeast corner of this floor. Significant oil staining exists on the north limestone wall. A composite rock chip sample (RC-1) was collected from the northwest corner of the north wall, approximately 24" above the floor. RC-1 was analyzed for VOC+15, BN+15 and PCBs. No VOC compounds were detected above the TAGM generic soil cleanup objectives. RC-1 reported 0.420 mg/Kg of Arochlor-1254, which is below the TAGM cleanup objective for PCBs (1.0 mg/Kg). RC-1 only reported the PAHs chrysene at 2,000 ug/Kg and benzo(a)pyrene at 310 ug/Kg, exceeding the TAGM objectives of 400 ug/Kg and 61 ug/Kg, respectively. This sample also reported 209,600 ug/Kg of BN TICs, which were primarily identified as unknown alkanes. These BN compounds are typically found in petroleum-based material (coal, coal ash, oil, asphalt, etc.).

The limestone wall was thick bedded (12 - 24") having shaley partings between beds. No significant vertical fractures were noted in the outcrop along which oil was seeping. Most of the oil seeps were from shaley partings between more massive micritic limestone beds. Since this rock wall is part of the structure of the building, it cannot be removed. It is recommended that the limestone wall be pressure washed in an attempt to remove the oil staining. After cleaning (if possible), the wall should be sealed with an epoxy paint or similar material. All generated waste should be properly disposed of.

REC - 3: 3rd Floor

Two (2) floor sumps were reported in the Phase I report as being associated with the wastewater equalization tank. Only one (1) sump could be located. This sump was northeast of the Equalization Tank and was covered by a metal grate 18" square. The sump funneled into a 4" drainage pipe that elbowed toward the southwest. The floor was sloped toward this sump so that wastewater dripping from the 2nd floor via various pipes could be drained to the 4th floor. The sump appeared sound. No further action is recommended regarding this floor sump.

A floor trench is located to the southwest of the old coal-fired boiler south of the Electrical Room. The trench slopes from east to west and is constructed to allow an 8" diameter steel storm water pipe to pass from the 2nd floor through the wall to the Black River. The trench was filled with paper pulp and dirt. The trench walls and floor appear to be constructed of a combination of limestone bedrock and concrete. According to facility personnel, this structure is not intended to be a trench drain. It is a depressed area in the floor that allows the storm water pipe to pass through the floor and wall of the building. Based upon the conditions of this structure and since it was filled with material, it appears that liquids do not pass through the trench. Since its function is to house the steel storm water pipe and no liquids come in contact with the trench structure itself, no further action is recommended regarding the trench.

Significant oil stains and crusts are located on the limestone bedrock outcrop along the southeast wall of this floor behind the elevator shaft. As previously mentioned, according to facility personnel, the oil staining is a historical issue caused by leaking gear boxes associated with the water wheels formerly used onsite decades ago. The oil in this area was the thickest observed in the building. Tar-like crusts of oil had accumulated to 0.5" in thickness with seeping oil forming when the crust was removed. As with the 2nd floor, the oil was seeping through the wall along horizontal bedding planes in a zone approximately 12" wide. Individual limestone beds were 2 - 4" in thickness in this area separated by shaley, crumbly zones. A composite rock chip sample (RC-2) was collected from this area and analyzed for VOC+15, BN+15 and PCBs. No PCBs were detected in the sample. No VOC compounds were detected above the TAGM generic soil cleanup objectives. RC-2 did not report any detected BN target compounds. However, due to the reported concentration of 5,540,000 ug/Kg BN TICs, many of the BN target compound method detection levels exceeded the respective TAGM cleanup objectives. The BN TICs were all reported as unknowns. Since this rock wall is part of the structure of the building, it cannot be removed. It is recommended that the tar-like crust on the wall be scraped off and the wall pressure washed to remove as much of the staining as possible. After cleaning the wall

(if possible), the wall should be sealed with an epoxy paint or similar material. All generated waste should be properly disposed of.

A second rock chip sample (RC-3) was collected from the north wall of the Above Ground Tank Storage Room at the northeast corner of this floor. This oil staining was reportedly from the 1992 No. 6 fuel oil release. Samples were collected from a constructed limestone block wall forming the north wall of this room. Oil staining in this room was minor. Sample RC-3 was also analyzed for VOC+15, BN+15 and PCBs. No PCBs were detected in the sample. No VOC compounds were detected above the TAGM generic soil cleanup objectives. RC-3 only reported benzo(a)anthracene at 1,800 ug/Kg, benzo(b)fluoranthene at 1,300 ug/Kg, and benzo(a)pyrene at 1,500 ug/Kg; all above the applicable TAGM cleanup objectives of 224 ug/Kg, 1,100 ug/Kg, and 61 ug/Kg, respectively. This sample also reported 188,000 ug/Kg of BN TICs, which were primarily comprised of PAHs and unknown alkanes. These BN compounds are typically found in petroleum-based material (coal, coal ash, oil, asphalt, etc.). This area should be pressure washed to remove the oil staining (if possible). After cleaning, the walls should be sealed with an epoxy paint or similar material. All generated wastes should be properly disposed of.

REC - 4: 4th Floor

At least three (3) large floor sumps are located in the northwest corner of this floor. The sumps were constructed entirely of concrete. Only the lower sump appeared to be constructed with a bedrock floor. The sumps appeared intact. No significant staining was observed in the sumps. The sump floor constructed of bedrock should be sealed or coated.

The sump at the base of the elevator shaft was inspected and found to be constructed of concrete that was intact and free of significant cracks. Approximately 1 - 2" of brown to black wet silt possibly mixed with oil had accumulated on the base of the shaft. A sample of this material (ES-1) was collected for VOC+15, BN+15 and PCB analysis. The slab appeared to be intact. None of the oily silt was noticed outside of the concrete base area. No PCBs were detected in the sample. No VOC compounds were detected above the TAGM generic soil cleanup objectives. ES-1 only reported benzo(a)pyrene at 230 ug/Kg, exceeding its respective TAGM cleanup objective of 61 ug/Kg. This sample reported 60,400 ug/Kg of BN TICs, which were primarily identified as unknowns. These BN compounds are typically found in petroleum-based material (coal, coal ash, oil, asphalt, etc.). It is recommended that the silt be removed from the bottom of the elevator shaft and properly disposed of.

Oil stains were located on the southeast wall of this floor, at the base of the stairs and adjacent to the north side of the elevator shaft. As with the oil stains on previous floors, the oil was seeping from along shaley partings in the limestone bedrock. No significant vertical fracturing was noticeable in the outcrop. The seep occurred approximately 12" above the foundation structure. A composite rock chip sample (RC-4) was collected and analyzed for VOC+15, BN+15 and PCB compounds. No PCBs were detected in the sample. No VOC compounds were detected above the TAGM generic soil cleanup objectives. RC-4 only reported benzo(a)pyrene at 5,000 ug/Kg, exceeding its respective TAGM cleanup objective of 61 ug/Kg.

However, due to the reported concentration of 510,000 ug/Kg BN TICs, many of the BN target compound method detection levels exceeded the respective TAGM cleanup objectives. The BN TICs were all reported as unknowns. These BN compounds are typically found in petroleum-based material (coal, coal ash, oil, asphalt, etc.). Since this rock wall is part of the structure of the building, it cannot be removed. It is recommended that the wall be pressure washed to remove as much of the staining as possible. After cleaning the wall (if possible), the wall should be sealed with an epoxy paint or similar material. All generated waste should be properly disposed of.

Main Plant Exterior

REC - 5: Dumpster Area

Metal 40 cu.yd. rolloff dumpsters are staged outside of the northeast corner of the Site. Latex and dye-coated paper scrap and scrap metal are disposed of in these dumpsters. A storm water catch basin was previously reported as being located next to these dumpsters. That catch basin had been relocated to approximately 25' north-northeast of the dumpster.

Soil boring EB-1 was conducted in a crack in the cement pad on which the dumpsters were staged. A soil sample was collected from the 0.5 - 1.0' interval occurring beneath the concrete. This sample was analyzed for VOC+15, BN+15 and for PPM. No VOC or BN compounds were detected above the respective TAGM cleanup objective. Concentrations of arsenic, beryllium and nickel were reported above the respective published TAGM objectives. However, there is a stipulation within the TAGM memo that site background conditions for all of these metals can be utilized as the cleanup objective instead of the published generic objective.

EB-1 was sampled continuously to 16' below grade (b.g.). Fill material consisting of primarily coal ash, cinders and crushed concrete was encountered. Field screening did not detect any significant organic vapors. The noted metals are most likely derived from the coal ash in the historic fill, which is ubiquitous. See ENVISION's comments pertaining to the fill issue at the end of this section.

Sediment sample EB-2 (Catch Basin) was collected from the inside bottom of the storm water catch basin and analyzed for VOC+15, BN+15 and PPM. No PID readings were detected in the sediment sample. No VOC compounds were detected above the respective TAGM cleanup objective. Sample EB-2 (Catch Basin) contained benzo(a)pyrene at 160 ug/Kg, exceeding the TAGM objective of 61 ug/Kg. This sample also reported 137,200 ug/Kg of BN TICs. Concentrations of beryllium, chromium and zinc were reported above the respective published TAGM objectives. These compounds were more than likely detected in the catch basin sample as a result of the catch basin capturing sheet water flow over asphalt pavement from Bridge Street and other offsite asphalt paved areas. No further action is recommended.

REC - 6: Boiler Room Sump

The sump in the driveway outside of the Boiler Room was inspected for integrity and found to be intact. The sediment buildup in the sump should be cleaned out. Since this sump discharges to the Site storm water system, which directs the storm water to the Black River, spill blockers should be used near the sump should a surface release of material occur.

REC - 7: Historic Fill

The parking lot north of the Site is constructed on demolition debris and fill material used to raise the elevation of the area. This area is not paved and is used for employee parking. As discussed in Section 2.0, this area was previously approximately 25' lower in elevation and was used for coal storage and as a planing mill. Demolition debris, including cement boulders, had been filled into the area to raise it to its present elevation. The fill material consists of construction debris from the demolished Court Street Bridge. The State of New York Department of Transportation, Watertown, NY, authorized the use of the construction debris as fill material. A DOT letter dated May 13, 1993 states that the fill material contains no contaminated material (hazardous waste, industrial waste, or petroleum products through a spill).

Two (2) soil borings (EB-3 and EB-4) and one (1) test pit (TPE-3) were advanced through the fill using a Geoprobe and excavator. Soil samples were collected based upon field screening results or as discussed previously. Soil samples were analyzed for VOC+15, BN+15, PPM and PCBs.

Boring EB-3 was conducted near the east center part of the parking lot. Continuous soil samples were collected to refusal on limestone bedrock at 23.8' b.g. Materials encountered consisted mainly of ash, coal dust, cinders, wood and concrete chunks. A soil sample was collected from the 16 - 16.5' interval for analyses. This sample appeared to be from the 6" interval above the water table and also was the interval having the highest headspace reading (1.9 units). No VOC compounds were detected above the respective TAGM cleanup objective. No PCBs were detected. EB-3 (16-16.5') reported benzo(a)anthracene at 3,200 ug/Kg, chrysene at 3,700 ug/Kg, benzo(b)fluoranthene at 4,000 ug/Kg, benzo(k)fluoranthene at 1,700 ug/Kg, benzo(a)pyrene at 2,800 ug/Kg and dibenz(a,h)anthracene at 260 ug/Kg; all above the applicable TAGM cleanup objectives of 224 ug/Kg, 400 ug/Kg, 1,100 ug/Kg, 1,100 ug/Kg, 61 ug/Kg and 14 ug/Kg, respectively. This sample also reported 48,500 ug/Kg of BN TICs, which were primarily comprised of PAHs and unknown alkanes. Concentrations of beryllium, copper, nickel, mercury and zinc were reported above the respective published TAGM objectives.

A temporary piezometer (PZ-1) was installed in EB-3 and allowed to stand overnight but was dry the next morning. As a result, no groundwater sample was collected from this boring. The piezometer material was removed and the borehole was backfilled.

Boring EB-4 was located near MW-1 on the south side of the historic fill area adjacent to the Site. This is also in the vicinity of the previous test pit TP-1, excavated after the 1992 No. 6 fuel

oil leak. The historic fill overlying the previous TP-1 area was replaced after the fuel oil release cleanup activities took place in 1992-93 (see ENVISION's Phase I report, Appendix 30 for previous No. 6 fuel oil spill investigation reports). Boring EB-4 was intended to characterize the historic fill as well as the soil conditions in the vicinity of the former oil release. EB-4 encountered a sandy fill containing crushed limestone, concrete, bricks and clayey silts. A sample was collected at 1.5 - 2.0' b.g. due to an elevated headspace reading of 3.0 units. Soil samples were collected continuously to refusal on limestone bedrock at 17.5' b.g. No significant groundwater was encountered in the borehole. In order to investigate soil conditions at the base of the fill in the vicinity of the previous oil release, a sample was also collected from 16 - 16.5' b.g. Both collected samples were analyzed for VOC+15, BN+15, PPM and PCBs. No VOC compounds were detected above the respective TAGM cleanup objectives and no PCBs were detected in either sample. EB-4 (1.5-2.0') reported benzo(a)anthracene at 1,300 ug/Kg, chrysene at 1,300 ug/Kg, benzo(b)fluoranthene at 2,000 ug/Kg, benzo(a)pyrene at 1,300 ug/Kg and dibenz(a,h)anthracene at 81 ug/Kg; all above the applicable TAGM cleanup objectives of 224 ug/Kg, 400 ug/Kg, 1,100 ug/Kg, 61 ug/Kg and 14 ug/Kg, respectively. This sample also reported 7,130 ug/Kg of BN TICs, which were primarily comprised of PAHs and unknown alkanes. Concentrations of beryllium and zinc were reported above the respective published TAGM objectives. EB-4 (16-16.5') contained benzo(a)pyrene at 110 ug/Kg, exceeding the TAGM objective of 61 ug/Kg. This sample also reported 6,940 ug/Kg of BN TICs. Concentrations of beryllium, mercury and zinc were reported above the respective published TAGM objectives.

The demolition debris fill material used in this area was reported by plant personnel to contain large boulders of concrete near the western edge of the parking lot. A large backhoe was brought onsite and test pit TPE-3 was excavated near the northwest corner of the parking lot to determine upgradient background conditions. The pit was excavated to 12' below grade, at which point large chunks of concrete were encountered which prohibited deeper excavation. The historic fill material encountered was primarily a sandy fill having mixed concrete chunks, reinforcement bar, sheet metal, steel wire and silty clay material. No coal ash was evident in this area. A very moist light grey silty clay was encountered from 1.5 - 3.0' b.g. A sample was collected from this interval and analyzed for VOC+15, BN+15, PPM and PCBs. No VOC or BN compounds were detected above the respective TAGM cleanup objective and no PCBs were detected in either sample. TPE-3 (1.5-2') reported concentrations of beryllium (0.39 mg/Kg), which exceeded the published TAGM objective of 0.16 mg/Kg.

As mentioned, a stipulation within the TAGM memo states that the cleanup objectives for metals, excluding mercury, can also be Site Background. The noted PAH compounds and metals are most likely derived from the historic fill onsite. See ENVISION's comments pertaining to the fill issue at the end of this section.

REC - 8: Old Water Flume

A storm water drainage pipe is bedded in an old water flume on the northwest side of the Plant. The flume may have received oil from the 1992 fuel oil spill that occurred between the Plant and the flume. The bedding material in the flume and around the storm water pipe was inspected by

excavating a trench using a backhoe and collecting soil samples. There was no indication that oil had migrated along the pipe from the spill area. Two (2) soil samples (TPE-1 and TPE-2) collected from beneath the pipe were analyzed for VOC+15 and BN+15. No VOC compounds were detected above the respective TAGM cleanup objective in either sample. Sample TPE-2 (4-4.5') did not report any BN concentrations in exceedance of the respective TAGM objectives. Sample TPE-1 (3-3.5') contained benzo(a)anthracene at 310 ug/Kg and benzo(a)pyrene at 260 ug/Kg, exceeding the generic TAGM objectives of 224 ug/Kg and 61 ug/Kg, respectively. This sample reported 2,420 ug/Kg of BN TICs, which were primarily identified as unknowns. These PAH compounds are more than likely associated with the historic fill used onsite. See ENVISION's comments pertaining to the fill issue at the end of this section.

REC - 9: Previous Fuel Oil Spill Area

A release from a No. 6 fuel oil pipe occurred on the north side of the Site in 1992. During 1993, soils were excavated in this area and three (3) test pits (TP-1 – TP-3) were excavated. On October 25, 2000, boring EB-4 was completed and soil samples were collected from 1.5 – 2.0' and 16 - 16.5' in the vicinity of previous test pit TP-1 to confirm that removal of the impacted soils was completed. Bedrock was located 17.5' below grade in this area. The sample was analyzed for VOC+15, BN+15, PPM and PCBs. Please note that this boring also addressed REC – 7: Historic Fill. The two (2) test pits (TPE-1 and TPE-2) described above (REC – 8) were also sampled to confirm the findings of the 1992 oil release investigation.

A monitoring well was also installed in 1993 in the release area. This well (MW-1; 75' deep) was sampled and analyzed for VOC+15, BN+15 and PPM. No exceedances above the respective water quality criteria were detected in this groundwater sample.

Based upon the results of the sampling (see REC – 7 and REC – 8), it appears that the 1992 fuel oil release was appropriately addressed. No visual or olfactory evidence of oil was noted in TPE-1 and TPE-2. Overall, the PAH compounds and metals reported to exceed the respective generic TAGM objectives are most likely derived from the coal ash in the historic fill, which is ubiquitous. See ENVISION's comments pertaining to the fill issue at the end of this section.

REC - 10: Wastewater Pipeline

An abovegrade wastewater pipeline extends from the Site to the Village of Brownville POTW, which is located west of the Site. The pipeline contains a cleanout with a manhole access. This manhole has overflowed in the past with process wastewater from the Site. The pavement below the cleanout was inspected for integrity. The concrete pavement was found to be cracked and deteriorated. Boring EB-5 was installed approximately 10' southwest of the manhole and a soil sample was collected from 1.2 - 1.7' below grade in a sandy ash material and analyzed for VOC+15 and BN+15. No VOC compounds were detected above the respective TAGM cleanup objective. EB-5 (1.2-1.7') contained benzo(a)anthracene at 240 ug/Kg and benzo(a)pyrene at 180 ug/Kg, exceeding the TAGM objectives of 224 ug/Kg and 61 ug/Kg, respectively. This sample did not report any BN TICs. These PAH compounds are more than likely associated

with the historic fill used onsite. See ENVISION's comments pertaining to the fill issue at the end of this section.

Soil samples were collected continuously to 16' b.g. from this boring. Groundwater was encountered approximately 7.8' b.g. Fill material, consisting of ash, sand, crushed concrete and rock, was sampled continuously to a depth of 8' b.g., after which a sandy silt alluvium was encountered. The water table was located close to this contact. No PID readings were detected in the soil column. A temporary piezometer (PZ-2) was installed in the borehole. A groundwater sample was collected and analyzed for VOC+15, BN+15 and PPM. No VOC or BN compounds were detected in the groundwater sample from PZ-2. PZ-2 reported a concentration of 75.2 ug/L of lead, which exceeds the NYSDEC Water Quality Standard of 25 ug/L. A true monitoring well should be installed at this location and sampled for lead (total and dissolved) to confirm these findings.

REC - 11: Warehouse Exterior

A floor drain previously existed in the Warehouse located east of Bridge Street. This drain discharged into Philomel Creek on the east side of the Warehouse. A 6" diameter steel pipe was located 70' north of the southeast corner of the building. This pipe was located 30" below the top of the foundation wall and was filled with concrete. A sample was collected from the loamy silt sediment located above a rusted metal plate sitting on bedrock immediately below the outfall. This sample (EB-6) was analyzed for VOC+15 and BN+15. No VOC compounds were detected above the respective TAGM cleanup objective. EB-6 did not report any detected BN target compounds. However, due to the reported concentration of 259,400 ug/Kg of BN TICs, many of the BN target compound method detection levels exceeded the respective TAGM cleanup objectives. The BN TICs were all reported as unknowns. Since this area of the Site receives surface water flow from offsite, an upgradient soil sample from within the Philomel Creek should be collected and analyzed for the same parameters in order to determine if the concentration of BN TICs is coming from offsite. In addition, upon analysis of the sample, the laboratory should attempt identification of the TICs in order to determine if any of the individual compounds exceed the respective TAGM objective.

BN and PPM TAGM Objective Exceedances

The noted PAH BN compounds and heavy metals, which are reported to exceed the respective generic TAGM cleanup objectives are believed to be associated with the historic fill (coal, coal ash, cinders, etc.) found across the Site. As a result, it is ENVISION's opinion that these concentrations should be considered as background conditions found onsite. According to the NYSDEC, a site's final soil cleanup objective can be determined by using the TAGM generic values as its basis and accounting for the following conditions: risk assessment, concentrations which are protective of water quality, background values, and method detection limits. Site-specific cleanup levels should be developed through the Feasibility Study process (TAGM 4030). Through the development of site-specific cleanup levels, based on the presence of the historic fill onsite, remediation of these RECs may not be required.

As a result, ENVISION recommends that the Phase II results be reported to the NYSDEC so that an NYSDEC-approved sampling plan can be developed, which will evaluate the distribution of the contaminants in the fill and enable site-specific cleanup objectives for metals and PAHs to be developed. This sampling program may also need to include a risk assessment.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

VOLUNTARY CLEANUP PROGRAM APPLICATION

NYSDEC Site No.:_____ (rev. 11/00)

COPY

STATEMENT OF CERTIFICATION

I, Frank C. Brown, do hereby certify and attest that the information included in this Voluntary Cleanup Program application, including any attachments, is, to the best of my knowledge and belief, accurate and complete; and that the applicant has the necessary funds to undertake the activities proposed to be implemented under this application, if approved.

2-20-02 (Date) Frank C Brown (Signature)

TYPE OF CONTAMINANTS: ☑ Petroleum ☐ Hazardous Substances ☐ MGP ☑ Other

I. SITE NAME AND LOCATION

SITE NAME (legal, common, or descriptive): FiberMark DSI Inc. (formerly Rexam DSI Inc.)
SITE LOCATION: Street or Route No.: Bridge Street (Northside of Black River - Just West of Bridge)
CITY/TOWN: Brownville COUNTY: Jefferson ZIP: 13615
LATITUDE: 44° 00' 00" LONGITUDE: 75° 59' 00"
COUNTY TAX MAP IDENTIFIER NO(S): Plat 732, Block 2, Lot 38
NYTM Coordinates: E: 421,265 N: 4 872,483

II. CURRENT OWNER/OPERATOR INFORMATION

Current owner's name, address, and phone and fax nos.:

FiberMark Inc.
PO Box 489 / 161 Wellington Road
Brattleboro, VT 05302-0489
(802) 257-5900 (802) 257-5900-fax

Current operator's name, address, and phone and fax nos.:

FiberMark DSI Inc.
Bridge St.
Brownville, NY 13615
(315) 782-5800 (315) 782-5416-fax

III. VOLUNTEER IDENTIFICATION

Volunteer's name, address, and phone and fax nos.:

Rexam Inc.
4201 Congress Street
Charlotte NC 28209
(704) 551-1500 (704) 551-1572-fax

Volunteer's contact's name, address, and phone and fax nos.:

Frank C. Brown
Rexam Inc.
4201 Congress St. Charlotte, NC 28209
(704) 551-1520 (704) 551-1572-fax

Describe Volunteer's relationship, if any, to current owner and current operator (subsidiary, shareholder, partner, etc.). If no relationship, put "none":
Former property owner/operator.

IV. PROPERTY'S ENVIRONMENTAL HISTORY OVER PAST 50 YEARS

A. To the extent that existing information/studies/reports/ are readily available to the applicant, attach: See Phase I Report.
- a description of the environmental history of the site that includes previous uses of the property, types of operation, chemicals used on the property, by-products or wastes produced by previous activities on-site, and a list of any orders, decrees, or other legal documents regarding violations of the Environmental Conservation Law or equivalent federal environmental statutes;
- a list of previous owners with names, last known addresses and telephone numbers (describe Volunteer's relationship, if any, to each previous owner listed. If no relationship, put "none"); and
- a list of previous operators with names, last known addresses and telephone numbers (describe Volunteer's relationship, if any, to each previous operator listed. If no relationship, put "none").

B. Is the site listed in New York State's Registry of Inactive Hazardous Waste Sites? YES ___ NO ✓

If yes, the Registry Site Code is __ - ___ - _____.

C. Is the site listed as Class 1 or 2 in New York State's Registry of Inactive Hazardous Waste Sites? YES ___ NO ✓

D. Did the Volunteer generate, transport or dispose of, arrange for or cause the generation, transportation or disposal of hazardous substance on the property? See below. YES ___ NO ___

E. Is the site a treatment, storage, or disposal facility (TSDF) subject to corrective action or closure under permit or order issued under the Department's hazardous waste management regulatory ("RCRA") program? YES ___ NO ✓

F. Is the site a TSDF operating under interim status under the RCRA program that is subject to enforcement action leading to the issuance of an order containing a corrective action schedule? YES ___ NO ✓

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V. INTENDED SITE USE

Briefly describe below the Contemplated Use of the site following cleanup.

The site will continue to be used as an industrial establishment for the manufacturing of latex saturated paper.

D. The site maintained a small quantity generator status (USEPA ID No. NYD 982188427). The only material that was generated onsite and shipped offsite for disposal as hazardous waste was spent mercury containing light bulbs (recycled) and spent Safety-Kleen self-contained parts washer fluid (recycled). See Section 4.7 of the Phase I report for more details.

ENVISION ENVIRONMENTAL, INC.

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

of

REXAM DSI INC.
BRIDGE STREET
BROWNVILLE, NY 13615

for

REXAM INC.
CHARLOTTE, NC 28209

Prepared by:

Mark P. Roman, CHMM
Stephen Laney, CPG

ENVISION ENVIRONMENTAL, INC.

December 2000

ENVISION Project ID 1500.REX

VOLUME I of II

21 Priscilla Lane, Howell, NJ 07731 • Phone: 732-886-1664 Fax: 732-886-2925

ENVISION
ENVIRONMENTAL, INC.

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ENVISION
ENVIRONMENTAL, INC.

1.0 INTRODUCTION

ENVISION ENVIRONMENTAL, INC. (ENVISION) conducted a Phase II Environmental Site Assessment of the REXAM DSI INC. (REXAM) facility in Brownville, NY during October 25 - 26, 2000. The Phase II activities concentrated on investigating Recognized Environmental Conditions (RECs) identified at the Brownville facility during a Phase I Environmental Site Assessment conducted in June 2000 by ENVISION. The Phase II activities outside of the building included the installation of two (2) temporary piezometers and six (6) soil borings, the excavation of three (3) test pits, and the sampling of one (1) existing monitoring well. Activities inside of the building included the collection of four (4) rock chip samples, one (1) elevator shaft sediment sample, and the inspection of trench drains.

The purpose of the groundwater and soil sampling activities was to determine the potential environmental impact from the identified RECs. A utility markout was performed prior to initiating the subsurface sampling activities and facility personnel were utilized for assistance in locating underground utility locations.

A total of eleven (11) soil samples and four (4) rock chip samples were collected for laboratory analysis. Laboratory analysis consisted of volatile organic compounds (VOC+15) via USEPA Method 8260; base neutral compounds (BN+15) via USEPA Method 8270; and priority pollutant metals (PPM). Selected samples were also analyzed for polychlorinated biphenyls (PCBs). Groundwater was sampled from one (1) existing bedrock monitoring well (MW-1) and one (1) piezometer (PZ-2). PZ-1 never produced any groundwater to be sampled. The groundwater samples were analyzed for VOC+15, BN+15, and PPM. Please note that both the VOC and BN analyses also included an additional fifteen (15) compound library search (+15).

It is recommended that ENVISION's August 2000 Phase I Environmental Site Assessment Report be reviewed in conjunction with this report in order to obtain more details on the identified RECs.

1.1 Sampling Approach

Soil Sampling

Geoprobe soil boring/piezometer installation services were provided by Atlantic Testing Laboratory, Syracuse, NY and test pit excavation services by Keller Drilling Co., Brownville, NY. Soil samples were collected with the Geoprobe rig using 46" x 1 7/8" diameter clear liners. All soil borings were advanced to groundwater, boring refusal, or to significant changes in soil lithology that indicated a change in horizon.

Soils were field screened continuously and headspace samples measured using a photoionization detector (PID) field instrument. No significant zones of contamination were encountered using these methods during field sampling activities. All borings were conducted until "clean" PID readings were obtained, if contamination was found. The six (6) inch soil interval from each boring that exhibited the highest PID reading was sampled for analysis. If no

significant PID readings were encountered, soil samples were collected from areas of soil discoloration; from the six (6) inch interval above the water table; or in the intervals specific to an REC (as described below). If the boring was determined to be "clean", based upon PID readings, then soil samples were collected under the following criteria:

- Under asphalt for potential surface releases – sample 18 – 24" below grade for all parameters;
- Under concrete for potential surface releases – sample 6 - 12" below grade for all parameters;
- Under non-paved areas – sample 0 - 6" below grade for all parameters except VOCs. For VOCs, sample at least 18 – 24" below grade or changes in lithology.

An upgradient soil sample (TPE-3) was collected and analyzed for VOC+15, BN+15, PPM and PCBs in order to determine background conditions onsite. Detailed lithologic logs were prepared for all borings and are presented in Appendix 1.

Groundwater Sampling

Two (2) temporary piezometers were installed using the Geoprobe by sampling continuously to the top of bedrock or to the water table in order to evaluate soil conditions and determine if groundwater was present in the unconsolidated material. Piezometers consisted of 1.0" diameter PVC screens (0.01" slot) and riser.

The two (2) temporary piezometers were installed onsite to intercept first water. One (1) piezometer (PZ-1) was located onsite near the northeast corner of the Site, in the parking lot area located over historic fill material. Another piezometer (PZ-2) was located on the west side of the property below the toe of the fill embankment and adjacent to the sanitary sewer line manhole. Refer to Figure 1 for all sampling locations.

The wells were purged using the slow-purge method and peristaltic pump. Field parameters measured include pH, temperature, electrical conductivity and dissolved oxygen (DO). These parameter values are listed on the purge sheets presented in Appendix 1. All sampling was conducted by following appropriate USEPA-approved decontamination/containerization and QA/QC procedures. STL-Envirotech Laboratories, a NY-certified laboratory, analyzed all collected samples.

1.2 Phase I Identified RECs

The following identifies the eleven (11) RECs that were investigated as part of the Phase II activities. The Main Building consists of four (4) floors, the top floor (ground level) is designated at the 1st floor, with floor numbers increasing downward. The RECs are also identified on Figures 1 - 5. Further details on the RECs can be found in ENVISION's Phase I report.

Main Plant Interior

1. REC – 1: 1st Floor

An inactive floor trench drain in the Raw Material Storage Area north of the paper machine previously collected liquids and drained to the wastewater pre-treatment system on the 2nd floor. The trench was inspected for integrity along its exposed length; and areas that are lined or bare bedrock were noted. An active floor trench drain on the north side of the Off Line Coater near the Coater Kitchen was also inspected for integrity.

2. REC - 2: 2nd Floor

A floor trench drain exists in the middle of the 2nd floor, which drains fluids from below the paper machine to the 3rd floor. This trench was inspected for integrity. The former Oil Room is located in the northeast corner of this floor. Significant oil staining exists on the limestone wall in the area where oil drums were formerly stored. A composite rock chip sample (RC-1) was collected from the north wall and analyzed for VOC+15, BN+15 and PCBs. The walls were also inspected for fractures along which petroleum may migrate into the bedrock.

3. REC - 3: 3rd Floor

Oil stains are located on the bedrock wall along the southeast side of this floor. According to facility personnel, the oil staining is a historical issue from the former use of water wheels in this section of the building. The gearboxes associated with the former water wheels more than likely leaked oil over the years and contributed to the staining on the walls. The use of the water wheels was discontinued decades ago and there is currently no source of oil leakage in this area of the building. The limestone was inspected for fractures and a composite rock chip sample (RC-2) was collected for VOC+15, BN+15 and PCB analysis. Two (2) floor sumps on this floor are reportedly associated with the wastewater equalization tank. The integrity of these sumps was evaluated. A floor trench is constructed in bedrock near the old coal-fired boiler south of the Electrical Room. The integrity of this floor trench was evaluated with special emphasis on locating open fractures.

4. REC - 4: 4th Floor

The sump at the base of the elevator shaft was inspected for cracks and fractures in bedrock. The integrity of two (2) floor sumps was evaluated. Oil stains are located on the southeast wall of this floor. These oil stains are reportedly associated with the gearboxes from the former water wheels mentioned in REC – 3. The wall is composed of limestone bedrock. A composite rock chip sample (RC-4) was collected and analyzed for VOC+15, BN+15 and PCB compounds.

Main Plant Exterior:

5. REC - 5: Dumpster Area

Dumpsters are staged outside of the northeast corner of the Site. Latex and dye-coated paper scrap and scrap metal are disposed of in these dumpsters. A storm water catch basin was reportedly located next to these dumpsters. A sediment sample (EB-2) was collected from the bottom of the basin and analyzed for VOC+15, BN+15 and PPM. The pavement near the dumpsters was also inspected for cracks and a soil sample (EB-1) was collected beneath an area of cracked pavement and analyzed for VOC+15, BN+15 and PPM.

6. REC - 6: Boiler Room Sump

A sump covered with a metal grate exists in the driveway near the Boiler Room. The integrity of the sump was evaluated.

7. REC - 7: Historic Fill

The parking lot north and west of the Main Plant is constructed on demolition debris used to raise the elevation of the area. Two (2) soil borings (EB-3 and EB-4) and one (1) test pit (TPE-3) were advanced through the fill using the Geoprobe and excavator. Soil samples were collected based upon field screening results or as discussed previously. Soil samples were analyzed for VOC+15, BN+15, PPM and PCBs. One (1) temporary piezometer (PZ-1) was installed using 1" PVC screen. A groundwater sample was not collected because the piezometer was dry.

8. REC - 8: Old Water Flume

A storm water drainage pipe is bedded in an old water flume on the northwest side of the Site. The flume may have received oil from the 1992 fuel oil spill that occurred between the Site and the flume. The bedding material in the flume and around the storm water pipe in this area was inspected by excavating trenches using a backhoe and collecting soil samples. Samples were analyzed for VOC+15 and BN+15. Two (2) trenches (TPE-1 and TPE-2) were excavated between the Black River and previous test pit TP-3. Test pit TP-3 was installed during the 1992 remedial activities, which addressed the 1992 oil release (see REC – 9).

9. REC - 9: Previous Fuel Oil Spill Area

A leak from a No. 6 fuel oil pipe occurred on the north side of the Site in 1992. As part of the remediation effort in 1992, soils were excavated in this area and three (3) test pits were excavated (TP-1 – TP-3). Although the New York State Department of Environmental Conservation (NYSDEC) issued a No Further Action letter for this

release, documentation on post-excavation soil conditions was not available. As a result, one (1) soil boring (EB-4) was completed by ENVISION in the vicinity of TP-1 to confirm that removal of the impacted soils was completed. Bedrock was located 17.5' below grade in this area. Soil samples from EB-4 were analyzed for VOC+15, BN+15, PPM and PCBs. Please note that this boring also addressed REC – 7 (Historic Fill). A monitoring well is also located in the former spill area. This well (MW-1; 75' deep) was sampled and analyzed for VOC+15, BN+15 and PPM.

10. REC - 10: Wastewater Pipeline

An abovegrade wastewater pipeline extends from the Main Plant to the Village of Brownville POTW, which is located west of the Site. The pipeline contains a cleanout with a manhole access. This manhole has overflowed in the past with process wastewater from the Site. The pavement below the cleanout was inspected for integrity and a soil boring/sample (EB-5) was installed. A temporary piezometer (PZ-2) was installed in the borehole. A soil sample was collected and analyzed for VOC+15 and BN+15. A groundwater sample was also collected and analyzed for VOC+15, BN+15 and PPM.

11. REC - 11: Warehouse Exterior

A floor drain previously existed in the Warehouse located east of Bridge Street. This drain reportedly discharged into Philomel Creek. A sample (EB-6) was collected from sediment located on bedrock immediately below the outfall. This sample was analyzed for VOC+15 and BN+15.

2.0 SITE CHARACTERISTICS

REXAM DSI INC. is located at Bridge Street, in the Village of Brownville, Jefferson County, New York. The Site is located on a rectangular tract of land, approximately 3.8 acres in size, on the north side of the Black River. The Site consists of two (2) buildings. The Main Plant and Paper Production Facility is located on the west side of Bridge Street on about 3.5 acres. A Warehouse is located on the east side of Bridge Street on about 0.3 acres and is used for finished product storage, shipping/receiving and raw material storage.

The Main Plant consists of four (4) floors (numbers increase downward) with the 4th floor located within the flood zone of the Black River. The floors decrease in total area from the top or 1st level to the bottom or 4th level. The Main Plant consists of approximately 98,000 sq.ft. of floor space and the Warehouse consists of approximately 2,000 sq.ft. of floor space.

The Site is currently used for the production of latex-saturated paper (book coverings, etc.). The Site was previously used as a cotton mill and paper mill.

The Main Plant is built upon micritic limestone and the property generally slopes toward the southwest or toward the Black River. The northern portion of the property has been filled in with demolition material from a local bridge demolition. This area was previously a large bowl-shaped depression, a possible sinkhole that was filled in during the 1990's. A parking lot presently exists in this area (see Figure 1). Fire insurance maps from 1926 show a rock retaining wall approximately 25' in height bordering Bridge Street beneath the east side of the present parking lot. The area west of the wall was used as a planing mill and for coal storage at that time.

Concrete-lined water flumes are located on the north and west sides of the Main Plant. The flumes were previously used to float logs to the Site in the 1890's-early 1900's. These flumes are now covered with historic fill. A 30" diameter corrugated steel stormwater pipe was installed in the flume located parallel to the north side of the Site prior to being buried. Figure 2 is a copy of the Fire Insurance Map showing the Site features in 1926.

2.1 Topography

Area topography onsite ranges from 310 ft. above mean sea level north of the facility and 250 ft. south of the facility, at river level. Topography slopes gently toward the west across the parking lot area on the northeast corner of the property, then abruptly from the top of the historic fill to the flood plain level of the river on the west side of the Site adjacent to the Black River.

2.2 Geology

Surface deposits in the Site area consists of sandy, gravelly glacial till that have been formed into low, streamlined ridges trending northeast-southwest. These ridges may be drumlins formed beneath the Wisconsinan continental glaciation that covered the area 10,000 - 12,000 years ago. Bedrock consists of carbonate rock belonging to the Black River Group of Middle Ordovician age (approximately 450 million years ago). The Chaumont, Lowville and Sugar River

limestones reportedly outcrop in the area. These carbonate rocks are dense, blocky, dark grey to brown grey limestones having bedding ranging 0.5 - 2.0' in thickness with shaley partings. Small-scale karst features including dissolution along bedding planes, joints and fractures have developed in the bedrock.

Bedrock has been subjected to brittle fracturing resulting in a dominant conjugate joint set striking northwest and north-northeast. These joints are planar, subvertical and spaced 5 - 10' apart. Minor jointing is confined to individual beds. The direction of maximum hydraulic conductivity would be parallel to bedding planes. A major fracture most likely extends east-west beneath the Black River, resulting in a very straight, entrenched river valley.

Onsite lithologies encountered during soil sampling include sandy fill materials comprised of coal ash, cinders, slag, coal, concrete, wood, rebar, sheet metal, wiring, limestone, etc. Fill was encountered primarily to the west of the buried retaining wall discussed in Section 2.0. Lithologies encountered west of or below the level of the historic fill include light grey clayey organic silts representing alluvial flood plain sediments.

2.3 Hydrogeology

Groundwater was not typically encountered in the historic fill. A thin damp zone was present above bedrock, but it did not yield groundwater to a temporary piezometer (PZ-1) after allowing the piezometer to remain in the ground overnight. Groundwater was encountered in the alluvial silt at the river level on the west side of the property at approximately 8' b.g.

Groundwater was encountered in the limestone in MW-1 between 40 - 75' below grade or approximately 15' below the base of the fill. MW-1 was installed in 1993 during an investigation conducted by others involving a release of No. 6 fuel oil that occurred in 1992. This well is 6" in diameter, completed with 40' of steel casing and as a stickup near the top of the fill slope adjacent to the north side of the building. The well reportedly can yield 3 - 5 gpm.

There are two (2) water-bearing zones onsite. One (1) was found in the unconsolidated native soil below the fill. The other water-bearing zone was found in the limestone bedrock. Based on the water levels recorded in MW-1 and PZ-2, these two (2) water-bearing zones appear to be connected.

A "disappearing" stream (Philomel Creek) is located east of the Warehouse. This stream resurges as a spring below the southeast corner of the Site, approximately 15' above the Black River.

3.0 SOIL INVESTIGATION ACTIVITIES

On October 25, 2000, four (4) soil borings were conducted using a Geoprobe 5400 machine and three (3) test pits were excavated using a Bobcat 328 backhoe at the Site. The Geoprobe utilized the direct-push method for soil sampling. This method hammers a 46" x 1.75" diameter clear acetate liner into the ground using a hydraulic hammer. Soil samples for headspace analysis were collected directly from the liner after field scanning the soil core with a PID. Samples having either the highest field screening PID results; located within the six (6) inch zone above the water table; located within lithology changes; or a representative sample from each tube were placed in laboratory containers for analysis. The results of the field screening/headspace readings are shown on the boring logs contained in Appendix 1.

The borings ranged in depth from 16 - 23.8 ft. b.g. Deep borings were conducted to determine depth to refusal (bedrock) and to locate the water table. Shallower test pits were conducted to determine soil conditions around a storm sewer with an invert 3 - 4' below grade. Figure 1 shows the boring locations in each REC located outside of the mill building onsite.

Only REC - 5, 7, 8, 9, 10 and 11 required soil sampling. The following describes the activities conducted in each of these RECs:

REC - 5: Dumpster Area

Metal 40 cu.yd. rolloff dumpsters are staged outside of the northeast corner of the Site. Latex and dye-coated paper scrap and scrap metal are disposed of in these dumpsters. A storm water catch basin was previously reported as being located next to these dumpsters. That catch basin had been relocated to approximately 25' north-northeast of the dumpster. A sample from the catch basin and a sample adjacent to the dumpsters was collected to determine if contaminants had migrated from the dumpsters to impact surrounding soil conditions.

Soil boring EB-1 was conducted in a crack in the cement pad on which the dumpsters were staged. EB-1 was located approximately 8' east of the dumpster. A soil sample was collected from the 0.5 - 1.0' interval occurring beneath the concrete. This sample was analyzed for VOC+15, BN+15 and for PPM.

EB-1 was sampled continuously to 16' below grade (b.g.). Fill material consisting of primarily coal ash, cinders and crushed concrete was encountered. Field screening did not detect any significant organic vapors. In order to determine the depth to bedrock or refusal, a blank was hammered to refusal at 26.9'. No groundwater was encountered in this boring.

Sediment sample EB-2 was collected from the inside bottom of the storm water catch basin and analyzed for VOC+15, BN+15 and PPM. No PID readings were detected in the sediment sample. The catch basin measured 2' x 2'8" x 4' in depth. A 6" steel pipe drained the basin toward the south to the Black River.

REC - 7: Historic Fill

The parking lot north of the Site is constructed on demolition debris and fill material used to raise the elevation of the area. This area is not paved and is used for employee parking. As discussed in Section 2.0, this area was previously approximately 25' lower in elevation and was used for coal storage and as a planing mill. Demolition debris, including cement boulders, had been filled into the area to raise it to its present elevation. The fill material consists of construction debris from the demolished Court Street Bridge. The State of New York Department of Transportation, Watertown, NY, authorized the use of the construction debris as fill material. A DOT letter dated May 13, 1993 states that the fill material contains no contaminated material (hazardous waste, industrial waste, or petroleum products through a spill). The purpose of sampling this fill was to determine if any contaminants had been introduced to the Site associated with the fill material.

Two (2) soil borings (EB-3 and EB-4) and one (1) test pit (TPE-3) were advanced through the fill using the Geoprobe and excavator. Soil samples were collected based upon field screening results or as discussed previously. Soil samples were analyzed for VOC+15, BN+15, PPM and PCBs.

Boring EB-3 was conducted near the east center part of the parking lot. Continuous soil samples were collected to refusal on limestone bedrock at 23.8' b.g. Materials encountered consisted mainly of ash, coal dust, cinders, wood and concrete chunks. The bottom 7' of the hole was slightly wet to wet. A soil sample was collected from the 16 - 16.5' interval for analyses. This sample appeared to be from the 6" interval above the water table and also was the interval having the highest headspace reading (1.9 units). A temporary piezometer (PZ-1) was installed in EB-3 using 15' of 1" PVC screen (0.01" slot). PZ-1 never produced any water for sampling. The piezometer was allowed to stand overnight but was still dry the next morning. The piezometer material was removed and the borehole was backfilled.

Boring EB-4 was located near MW-1 on the south side of the historic fill area adjacent to the Site. This is also in the vicinity of the previous test pit TP-1, excavated after the 1992 No. 6 fuel oil leak. The historic fill overlying the previous TP-1 area was replaced after the fuel oil release cleanup activities took place in 1992-93 (see ENVISION's Phase I report, Appendix 30 for previous No. 6 fuel oil spill investigation reports). Boring EB-4 was intended to characterize the historic fill as well as the soil conditions in the vicinity of the former oil release.

EB-4 encountered a sandy fill containing crushed limestone, concrete, bricks and clayey silts. A sample was collected at 1.5 - 2.0' b.g. due to an elevated headspace reading of 3.0 units. Soil samples were collected continuously to refusal on limestone bedrock at 17.5' b.g. No significant groundwater was encountered in the borehole. In order to investigate soil conditions at the base of the fill in the vicinity of the previous oil release, a sample was also collected from 16 - 16.5' b.g. Both collected samples were analyzed for VOC+15, BN+15, PPM and PCBs.

The fill material in this area was reported by plant personnel to contain large boulders of concrete near the western edge of the parking lot. A large backhoe was brought onsite and test

pit TPE-3 was excavated near the northwest corner of the parking lot. The pit was excavated to 12' below grade, at which point large chunks of concrete were encountered which prohibited deeper excavation. The historic fill material encountered was primarily a sandy fill having mixed concrete chunks, reinforcement bar, sheet metal, steel wire and silty clay material. A very moist light grey silty clay was encountered from 1.5 - 3.0' b.g. A sample was collected from this interval and analyzed for VOC+15, BN+15, PPM and PCBs. This sample was collected based upon the change in lithology and damp nature of this horizon.

REC - 8: Old Water Flume

A 30" corrugated metal storm water drainage pipe is bedded in an old water flume on the northwest side of the Site (see Figure 2). This area may have received oil from the 1992 No. 6 fuel oil spill that occurred between the mill building and the flume. The bedding material in the flume and around the storm water pipe was inspected by excavating two (2) trenches using a backhoe and collecting soil samples. Samples (TPE-1 and TPE-2) were analyzed for VOC+15 and BN+15.

Test Pit TPE-1 was excavated approximately 20' east of the northwest corner and 20' north of the mill building. TPE-1 encountered concrete, brick and crushed rock fill to 1' below grade, where the top of the storm water pipe was located. The pipe was bedded in a gravely sand that showed no indication of oil. A sample was collected from 3.0 - 3.5' b.g., or directly from below the pipe, and analyzed for VOC+15 and BN+15.

Test pit TPE-2 was excavated approximately 60' east of the northwest corner and 6' north of the mill building. This location is in the vicinity of previous test pit TP-3. Approximately 2' of fill consisting of bricks, cinders, concrete blocks, steel pipes, etc. and black silty sand were encountered above the storm water pipe. The pipe was bedded in a silty sand. A sample was collected from below the pipe in the 4 - 4.5' soil interval. The sample was analyzed for VOC+15 and BN+15. No indication of oil was detected during field screening or visual examination of the bedding material below and around the stormwater pipe from either test pits.

REC - 9: Previous Fuel Oil Spill Area

As previously discussed, a leak from a No. 6 fuel oil pipe occurred on the north side of the Site in 1992. During 1993, soils were excavated in this area and three (3) test pits (TP-1 – TP-3) were excavated. On October 25, 2000, boring EB-4 was completed and soil samples were collected from 1.5 – 2.0' and 16 - 16.5' in the vicinity of previous test pit TP-1 to confirm that removal of the impacted soils was completed. Bedrock was located 17.5' below grade in this area. The sample was analyzed for VOC+15, BN+15, PPM and PCBs. Please note that this boring also addressed REC – 7: Historic Fill. The two (2) test pits (TPE-1 and TPE-2) described above (REC – 8) were also sampled to confirm the findings of the 1992 oil release investigation.

A monitoring well was also installed in 1993 in the release area. This well (MW-1; 75' deep) was sampled and analyzed for VOC+15, BN+15 and PPM. See Section 4.0 for more information regarding groundwater sampling.

REC - 10: Wastewater Pipeline

An abovegrade wastewater pipeline extends from the Site to the Village of Brownville POTW, which is located west of the Site. The pipeline contains a cleanout with a manhole access. This manhole has overflowed in the past with process wastewater from the Site. The pavement below the cleanout was inspected for integrity. The concrete pavement was found to be cracked and deteriorated. Boring EB-5 was installed approximately 10' southwest of the manhole and a soil sample was collected from 1.2 - 1.7' below grade in a sandy ash material and analyzed for VOC+15 and BN+15. Soil samples were collected continuously to 16' b.g. from this boring. Groundwater was encountered approximately 7.8' b.g. Fill material, consisting of ash, sand, crushed concrete and rock, was sampled continuously to a depth of 8' b.g., after which a sandy silt alluvium was encountered. The water table was located close to this contact. No PID readings were detected in the soil column. A temporary piezometer (PZ-2) was installed in the borehole. A groundwater sample was collected and analyzed for VOC+15, BN+15 and PPM.

REC - 11: Warehouse Exterior

A floor drain previously existed in the Warehouse located east of Bridge Street. This drain discharged into Philomel Creek on the east side of the Warehouse. A 6" diameter steel pipe was located 70' north of the southeast corner of the building. This pipe was located 30" below the top of the foundation wall and was filled with concrete. A sample was collected from the loamy silt sediment located above a rusted metal plate sitting on bedrock immediately below the outfall. This sample (EB-6) was analyzed for VOC+15 and BN+15. The purpose for this sample was to determine if contaminants might have been discharged to the environment via the drain prior to its being abandoned.

Background Conditions

In order to determine background conditions at the Site, test pit TPE-3 was located near the north property line in the most upgradient location possible. No native soils were encountered in the excavation. See REC - 7 (Historic Fill) for details on TPE-3.

4.0 GROUNDWATER INVESTIGATION ACTIVITIES

One (1) bedrock monitoring well (MW-1) was previously installed onsite at the location shown on Figure 1. MW-1, located approximately in the center of the north side the Site, has a total depth of 75.2' b.g. and was constructed with 6" diameter steel casing grouted into bedrock at 40' b.g. The well was completed with a 2' stickup. Depth to the static water level in MW-1 was 42.0' on October 25, 2000, prior to purging and sampling. Groundwater samples were collected and analyzed for VOC+15, BN+15 and PPM. No PID readings were detected in the wellhead.

The purge form for MW-1 is presented in Appendix 1 of this report. Field parameters measured before sampling were as follows: pH 7.38; dissolved oxygen 0.0 ppm; electrical conductivity 0.62 mS/sec.; and temperature 10.23°C. Because of the depth to water, MW-1 was purged using a 2" submersible pump.

Two (2) temporary piezometers were installed onsite at the locations of borings EB-3 and EB-5 (see Figure 1). PZ-1 was located in historic fill near the east-center area of the parking lot. The bottom 5' of this borehole (EB-3) was damp to wet (19 - 24') and looked like it would yield water. Fifteen (15) feet of screen was installed in the borehole, which never produced any water. The well was allowed to stand overnight before it was removed and the borehole backfilled. No groundwater samples were obtained from PZ-1.

Temporary piezometer PZ-2 was installed west of the historic fill in recent alluvium (see lithologic log for EB-5). Sixteen (16') feet of screen was installed in the borehole. Groundwater was encountered at 8' b.g. The slow purge method (peristaltic pump) was used to purge the well. The purge form is located in Appendix 1. Field parameters measured before sampling were as follows: pH 7.09; dissolved oxygen 2.53 ppm; electrical conductivity 1.35 mS/sec.; and temperature 14.2°C. PZ-2 was sampled and analyzed for VOC+15, BN+15 and PPM.

Since PZ-1 was dry, a groundwater contour map and groundwater flow direction could not be determined onsite. At least three (3) data points are required to construct a groundwater contour/flow map. However, it appears that groundwater flow is towards the Black River.

5.0 TRENCH DRAINS AND ROCK CHIP SAMPLING

Trench drains are installed in the floors inside of the mill building. These trench drains collect wastewater from beneath various machines located on the upper three (3) floors and direct it to the wastewater sump/equalization tanks on the 3rd and 4th floors. The integrity of trenches and sumps were inspected by visually examining the length of the drainage devices (where accessible) and probing the sides and floors for cracks or deteriorating conditions using a hand probe (large screwdriver). When practical, the floor of the trench/sump was cleaned by hand in order to inspect the condition of the liner. Mr. Bob Murphy, Mr. Steve Lange and Mr. Jon Rose of REXAM DSI accompanied ENVISION personnel while they conducted the inspection.

In addition to examining the floor drains, samples of oil that was seeping along the bedrock walls in certain areas were collected. The oily bedrock was sampled by taking rock chip samples using a clean chisel and hammer. The rock chip samples (RC) were placed in glass jars and analyzed for VOC+15, BN+15 and PCBs.

Figures 3, 4, 5 and 6 show the floor plan for each floor. Figures 4, 5 and 6 also show the locations of rock chip samples collected onsite. The following is a summary of conditions observed on each floor:

REC – 1: 1st Floor

An inactive floor trench drain is located in the Raw Material Storage Area north of the paper machine. This drain is 122' in length, 9" wide and 2.5" deep. The drain previously collected liquids and drained to the wastewater pre-treatment system on the 2nd floor. The east 75' of trench was covered by a metal grate and the west 47' of the trench was covered by concrete. The trench was full of paper pulp and dirt and could not be thoroughly inspected. The base of the trench was solid where inspected. There was no bedrock exposed in the trench. Two (2) 3" dia. drain pipes were located in the base of the drain that discharged to the open air above the 2nd floor.

An active floor trench drain was located on the north side of the Off Line Coater, near the Coater Kitchen. This drain was 140' in length and gets deeper as it flows from east to west. The east end is 15" wide and 3" deep and the west end is 12" wide and 14" deep. The trench reportedly discharges to the 2nd floor at the west end. The trench flows from under the Coater Kitchen or mix room (north side of wall), to the Off Line Coater (south side of the wall), then back to the north side of the wall west of the dryer ovens. The trench is concrete lined throughout its length. The entire trench is covered by a metal grate except for the shallow (east) end beneath the mix tanks. Latex fluids were flowing from east to west in the trench at the time of inspection.

REC - 2: 2nd Floor

Floor Trenches

A floor trench drain exists in the middle of the 2nd floor, which drains fluids from below the paper machine to the 3rd floor. This trench is 8" deep and 10 - 12" wide on the west end. The sides

are constructed of concrete but the bottom of the trench is bare limestone bedrock. The bedrock floor appears to be a flat bedding plane. Wastewater in the trench is clear to a soapy, milky color, reported to be latex.

The trench forms a "Y" shaped system in the concrete floor. The east branch of the trench system was constructed entirely in bedrock. This branch was approximately 12" wide and 12" deep. Neither the east or west branches were covered. The east branch drained wastewater containing blue dye that drained from the Off Line Coater on the 1st floor.

The two (2) branches join into a single trench 14" deep and 18" wide that is covered by a metal grate. The floor of this final section of trench is also constructed on bedrock . The trenches on the 2nd floor reportedly drain to the wastewater tank located on the 3rd floor. The only area where the trench bottom does not appear solid is where all three (3) segments connect. A hole approximately 18" deep is present with loose rock in the bottom at the west end of the east branch. The east end of the west branch has holes 4 - 6" in depth in the bedrock. The remaining areas of the trench system appear solid.

Oil Staining

The former Oil Room is located in the northeast corner of this floor. Significant oil staining exists on the north limestone wall. A composite rock chip sample (RC-1) was collected from the northwest corner of the north wall, approximately 24" above the floor. RC-1 was analyzed for VOC+15, BN+15 and PCBs.

The limestone wall was thick bedded (12 - 24") having shaley partings between beds. No significant vertical fractures were noted in the outcrop along which oil was seeping. Most of the oil seeps were from shaley partings between more massive micritic limestone beds.

Oil stains were noted on Figure 6 of the Phase I report at the northwest corner of this floor. These stains were inspected and determined to be coatings/latex leaking from the storage room on the 1st floor.

REC - 3: 3rd Floor

Floor Trenches

Two (2) floor sumps were reported in the Phase I report as being associated with the wastewater equalization tank. Only one (1) sump could be located. This sump was northeast of the Equalization Tank and was covered by a metal grate 18" square. The sump funneled into a 4" drainage pipe that elbowed toward the southwest. The floor was sloped toward this sump so that wastewater dripping from the 2nd floor via various pipes could be drained to the 4th floor. The sump appeared solid. Other pits located in this room were all open to the 4th floor.

A floor trench is located to the southwest of the old coal-fired boiler south of the Electrical Room. The trench slopes from east to west and is constructed to allow an 8" diameter steel

storm water pipe to pass from the 2nd floor through the wall to the Black River. This trench is 18' long, 16" wide and approximately 10" deep. The trench is filled with paper pulp and dirt. The trench walls and floor appear to be constructed of a combination of limestone bedrock and concrete. The integrity of the trench floor could not be ascertained due to the trash in the trench.

Oil Staining

Significant oil stains and crusts are located on the limestone bedrock outcrop along the southeast wall of this floor behind the elevator shaft. The oil in this area was the thickest observed in the building. Tar-like crusts of oil had accumulated to 0.5" in thickness with seeping oil forming when the crust was removed. As with the 2nd floor, the oil was seeping through the wall along horizontal bedding planes in a zone approximately 12" wide. Individual limestone beds were 2 - 4" in thickness in this area separated by shaley, crumbly zones. A composite rock chip sample (RC-2) was collected from this area and analyzed for VOC+15, BN+15 and PCBs.

A second rock chip sample (RC-3) was collected from the north wall of the Above Ground Tank Storage Room at the northeast corner of this floor. This oil staining was reportedly from the 1992 No. 6 fuel oil release. Samples were collected from a constructed limestone block wall forming the north wall of this room. Oil staining in this room was minor compared to that present in the RC-2 sample area. Sample RC-3 was also analyzed for VOC+15, BN+15 and PCBs.

REC - 4: 4th Floor

The sump at the base of the elevator shaft was inspected. The shaft measured approximately 15' x 15' and was constructed of concrete. The area outside of the concrete base consisted of limestone bedrock with a wooden frame. Approximately 1 - 2" of brown to black wet silt possibly mixed with oil had accumulated on the base of the shaft. A sample of this material (ES-1) was collected for VOC+15, BN+15 and PCB analysis. The slab appeared to be intact. None of the oily silt was noticed outside of the concrete base area.

At least three (3) large floor sumps are located in the northwest corner of this floor. These sumps were where the water wheels were located that supplied power for the old paper mill that previously existed at the Site. The sumps were constructed entirely of concrete. Only the lower sump appeared to be constructed with a bedrock floor. The sumps appeared intact. No significant staining was observed in the sumps. Oil stains were located on the southeast wall of this floor, at the base of the stairs and adjacent to the north side of the elevator shaft. As with the oil stains on previous floors, the oil was seeping from along shaley partings in the limestone bedrock. No significant vertical fracturing was noticeable in the outcrop. The seep occurred approximately 12" above the foundation structure. A composite rock chip sample (RC-4) was collected and analyzed for VOC+15, BN+15 and PCB compounds. Oil staining was also evident on the bedrock outcrop south of the elevator shaft. Building structures in this area prohibited the collection of a sample.

The most significant oil staining observed on the 3rd and 4th floors were around the elevator shaft. The oily silt at the base of the elevator may be associated with oil leaking down the elevator shaft.

REC – 6: Boiler Room Sump

A sump or storm water catch basin is located in the concrete pad outside of the Boiler Room on the 1st floor. This sump measures 21" x 21" x 21" in depth, is constructed of concrete and is covered by a metal grate. There is a 6" diameter pipe at the bottom of the sump. The bottom of the sump was covered with a 1" mat of latex, pulp and dirt. The bottom of the sump was solid and the entire structure appeared to be intact.

6.0 ANALYTICAL RESULTS

Two (2) sets of guidance documents for site remediation have been issued by the NYSDEC. Each contains different soil remediation criteria. Stars Memo # 1, issued August 1992, contains petroleum-contaminated soil cleanup criteria and was intended to apply to petroleum spill sites. The STARS guidelines are recommended by the NYSDEC to be used primarily with petroleum containing UST investigations. On January 24, 1994, an NYSDEC Technical and Administrative Guidance Memorandum (TAGM) (HWR-94-4046) was issued by the Division of Hazardous Waste Remediation, which provides a basis and procedure to determine soil cleanup objectives for Federal Superfund, State Superfund, and responsible party lead sites. This 1994 memo, TAGM 4046, includes a much more extensive list of cleanup criteria than the Stars Memo # 1. ENVISION's Phase II report uses the cleanup objectives identified in TAGM 4046 for the assessment of the sampling data collected during the October 2000 Phase II activities.

TAGM 4046 lists generic soil cleanup objectives, which if met, will at a minimum eliminate significant threats to human health and/or the environment from detected contamination. The TAGM cleanup objectives are intended to be utilized as a starting point for remediation. If these objectives are met, then further investigation/remediation is not necessary. However, if the objectives are not attained, then site-specific cleanup objectives can be derived. A site's final soil cleanup objective can be determined by using the TAGM generic values as its basis and accounting for the following conditions: risk assessment, concentrations which are protective of water quality, background values, and method detection limits. According to the NYSDEC, site-specific cleanup levels should be developed through the Feasibility Study process (TAGM 4030).

The TAGM soil cleanup objectives are limited to the following maximum values:

- Total VOCs; less than or equal to 10 mg/Kg
- Total BNs; less than or equal to 500 mg/Kg
- Individual BNs; less than or equal to 50 mg/Kg
- Total Pesticides; less than or equal to 10 mg/Kg
- Heavy Metals; Eastern USA, New York State or site-specific soil background values

In addition, the TAGM 4046 generic soil cleanup objectives are based on a soil organic carbon content of 1%.

TAGM 4046 also identifies groundwater standards/criteria, which are derived from NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 and NYCRR 6, Chapter X, Parts 700 – 706 (Water Quality Regulations). In instances where TAGM 4046 does not identify a groundwater standard/criteria, the applicable criteria in ENVISION's data tables is derived from the NYSDEC Water Quality Regulations for freshwater groundwater quality (Class GA) criteria.

6.1 Soil Data

Table 1 presents a summary of the sampling and analysis data for each sample. Information contained on this table includes sample identifications, sample depths, sampling dates, analytical methodology and parameters analyzed for. Table 2 is a summary of VOC+15 soil and groundwater analytical results; Table 3 is a summary of BN+15 soil and groundwater analytical results; Table 4 is a summary of soil and groundwater PPM results; and Table 5 is a summary of PCB soil analytical results. Tables 2 and 3 only lists the analytical parameters that were reported above the analytical method detection levels. All other parameters analyzed for were reported as non-detect (below method detection level) for the VOC+15 and BN+15 analyses. Tables 2 – 5 also lists the respective TAGM generic soil cleanup objectives (Recommended Soil Cleanup Objectives and Soil Cleanup Objectives to Protect Groundwater Quality); and the NYSDEC Groundwater Quality Standards/Criteria.

The following reviews the results of the noted analyses:

As shown on Table 2, although VOCs were detected in the soil samples collected onsite, there were no VOC exceedances of the referenced generic soil cleanup objectives.

Table 3 summarizes the results of the BN+15 analysis. As can be seen from this table, most of the exceedances of the TAGM generic soil cleanup objectives involved polyaromatic hydrocarbons (PAHs) and TICs, which were primarily associated with the historic fill material containing coal, coal ash, cinders, slag, etc.; and with the oil rock chip samples.

Although BN compounds were detected in sample EB-1 (0.5-1'), all results were reported below the respective TAGM cleanup objectives.

Sample EB-2 (Catch Basin) contained benzo(a)pyrene at 160 ug/Kg, exceeding the TAGM objective of 61 ug/Kg. This sample also reported 137,200 ug/Kg of BN TICs.

Sample EB-3 (16-16.5') reported benzo(a)anthracene at 3,200 ug/Kg, chrysene at 3,700 ug/Kg, benzo(b)fluoranthene at 4,000 ug/Kg, benzo(k)fluoranthene at 1,700 ug/Kg, benzo(a)pyrene at 2,800 ug/Kg and dibenz(a,h)anthracene at 260 ug/Kg; all above the applicable TAGM cleanup objectives of 224 ug/Kg, 400 ug/Kg, 1,100 ug/Kg, 1,100 ug/Kg, 61 ug/Kg and 14 ug/Kg, respectively. This sample also reported 48,500 ug/Kg of BN TICs, which were primarily comprised of PAHs and unknown alkanes.

Sample EB-4 (1.5-2.0') reported benzo(a)anthracene at 1,300 ug/Kg, chrysene at 1,300 ug/Kg, benzo(b)fluoranthene at 2,000 ug/Kg, benzo(a)pyrene at 1,300 ug/Kg and dibenz(a,h)anthracene at 81 ug/Kg; all above the applicable TAGM cleanup objectives of 224 ug/Kg, 400 ug/Kg, 1,100 ug/Kg, 61 ug/Kg and 14 ug/Kg, respectively. This sample also reported 7,130 ug/Kg of BN TICs, which were primarily comprised of PAHs and unknown alkanes.

Sample EB-4 (16-16.5') contained benzo(a)pyrene at 110 ug/Kg, exceeding the TAGM objective of 61 ug/Kg. This sample also reported 6,940 ug/Kg of BN TICs.

Sample EB-5 (1.2-1.7') contained benzo(a)anthracene at 240 ug/Kg and benzo(a)pyrene at 180 ug/Kg, exceeding the TAGM objectives of 224 ug/Kg and 61 ug/Kg, respectively. This sample did not report any BN TICs.

Sample EB-6 (0-0.5') did not report any detected BN target compounds. However, due to the reported concentration of 259,400 ug/Kg BN TICs, many of the BN target compound method detection levels exceeded the respective TAGM cleanup objectives. The BN TICs were all reported as unknowns.

Sample TPE-1 (3-3.5') contained benzo(a)anthracene at 310 ug/Kg and benzo(a)pyrene at 260 ug/Kg, exceeding the TAGM objectives of 224 ug/Kg and 61 ug/Kg, respectively. This sample reported 2,420 ug/Kg of BN TICs, which were primarily identified as unknowns.

Samples TPE-2 (4-4.5') and TPE-3 (1.5-2') did not report any BN concentrations in exceedance of the respective TAGM objectives.

Rock sample RC-1 contained chrysene at 2,000 ug/Kg and benzo(a)pyrene at 310 ug/Kg, exceeding the TAGM objectives of 400 ug/Kg and 61 ug/Kg, respectively. This sample reported 209,600 ug/Kg of BN TICs, which were primarily identified as unknown alkanes.

Rock sample RC-2 did not report any detected BN target compounds. However, due to the reported concentration of 5,540,000 ug/Kg BN TICs, many of the BN target compound method detection levels exceeded the respective TAGM cleanup objectives. The BN TICs were all reported as unknowns.

Rock sample RC-3 reported benzo(a)anthracene at 1,800 ug/Kg, benzo(b)fluoranthene at 1,300 ug/Kg, and benzo(a)pyrene at 1,500 ug/Kg; all above the applicable TAGM cleanup objectives of 224 ug/Kg, 1,100 ug/Kg, and 61 ug/Kg, respectively. This sample also reported 188,000 ug/Kg of BN TICs, which were primarily comprised of PAHs and unknown alkanes.

Rock sample RC-4 reported benzo(a)pyrene at 5,000 ug/Kg, exceeding its respective TAGM cleanup objective of 61 ug/Kg. However, due to the reported concentration of 510,000 ug/Kg BN TICs, many of the BN target compound method detection levels exceeded the respective TAGM cleanup objectives. The BN TICs were all reported as unknowns.

Sample ES-1 reported benzo(a)pyrene at 230 ug/Kg, exceeding its respective TAGM cleanup objective of 61 ug/Kg. This sample reported 60,400 ug/Kg of BN TICs, which were primarily identified as unknowns.

Table 4 lists the results of the thirteen (13) PPMs. As can be seen from this table, seven (7) of the PPMs reported concentrations exceeding the TAGM Recommended Soil Cleanup Objectives. These metals included arsenic, beryllium, chromium, copper, mercury, nickel and

zinc. However, there is a stipulation within the TAGM objectives that site background concentrations for all of these metals, with the exclusion of mercury, can be utilized as the cleanup objective instead of the published generic objective. Mercury has a generic cleanup objective of 0.1 mg/Kg. The majority of these metals appear to be associated with the coal/coal ash and construction debris fill material found onsite in the filled in parking area on the north side of the Site. Sample EB-1 (0.5-1.0') reported concentrations of arsenic (9.9 mg/Kg), beryllium (0.59 mg/Kg), and nickel (41.1 mg/Kg), which exceeded the published TAGM objectives of 7.5 mg/Kg for arsenic; 0.16 mg/Kg for beryllium; and 13 mg/Kg for nickel. Sample EB-2 (Catch Basin) reported concentrations of beryllium (0.20 mg/Kg), chromium (14.0 mg/Kg) and zinc (259 mg/Kg), which exceeded the published TAGM objectives of 0.16 mg/Kg for beryllium; 10 mg/Kg for chromium and 20 mg/Kg for zinc. Sample EB-3 (16-16.5') reported concentrations of beryllium (0.29 mg/Kg), copper (35.5 mg/Kg), nickel (13.7 mg/Kg) and zinc (170 mg/Kg), which exceeded the published TAGM objectives of 0.16 mg/Kg for beryllium; 25 mg/Kg for copper, 13 mg/Kg for nickel and 20 mg/Kg for zinc. Sample EB-4 (1.5-2') reported concentrations of beryllium (0.21 mg/Kg), and zinc (38.5 mg/Kg), which exceeded the published TAGM objectives of 0.16 mg/Kg for beryllium; and 20 mg/Kg for zinc. Sample EB-4 (16-16.5') reported concentrations of beryllium (0.24 mg/Kg), and zinc (61.9 mg/Kg), which exceeded the published TAGM objectives of 0.16 mg/Kg for beryllium; and 20 mg/Kg for zinc. Sample TPE-3 (1.5-2') reported concentrations of beryllium (0.39 mg/Kg), which exceeded the published TAGM objectives of 0.16 mg/Kg for beryllium. As mentioned, a stipulation within the TAGM objectives states that the cleanup objectives for these metals can also be Site Background. Samples EB-3 (16-16.5') and EB-4 (16-16.5') reported exceedances of the mercury cleanup objective (0.34 mg/Kg and 0.14 mg/Kg, respectively).

As can be seen from Table 5, no PCBs were detected in soil samples EB-3 (16-16.5'), EB-4 (1.5-2'), EB-4 (16-16.5'), TPE-3 (1.5-2.0'); rock chip samples RC-2 (0-0.5'), RC-3 (0-0.5'), RC-4 (0-0.5'); and sediment sample ES-1 (0-0.5'). Rock chip sample RC-1 reported 0.420 mg/Kg of Arochlor-1254, which is below the TAGM cleanup objective for PCBs (1.0 mg/Kg).

Field blanks were collected each sampling day and analyzed for VOC+15, BN+15, PPM and PCBs for QA/QC purposes. All parameters analyzed for were reported as none detected, except for methylene chloride. The October 26 field blank reported a level of 8.6 ug/L. This low level of methylene chloride is attributable to laboratory contamination.

6.2 Groundwater Data

Tables 2 - 4 also present the results of the analytical parameters detected in the groundwater samples for MW-1 and PZ-2.

As shown on Table 2, no VOC+15 compounds were detected in the groundwater samples obtained from MW-1 and PZ-2.

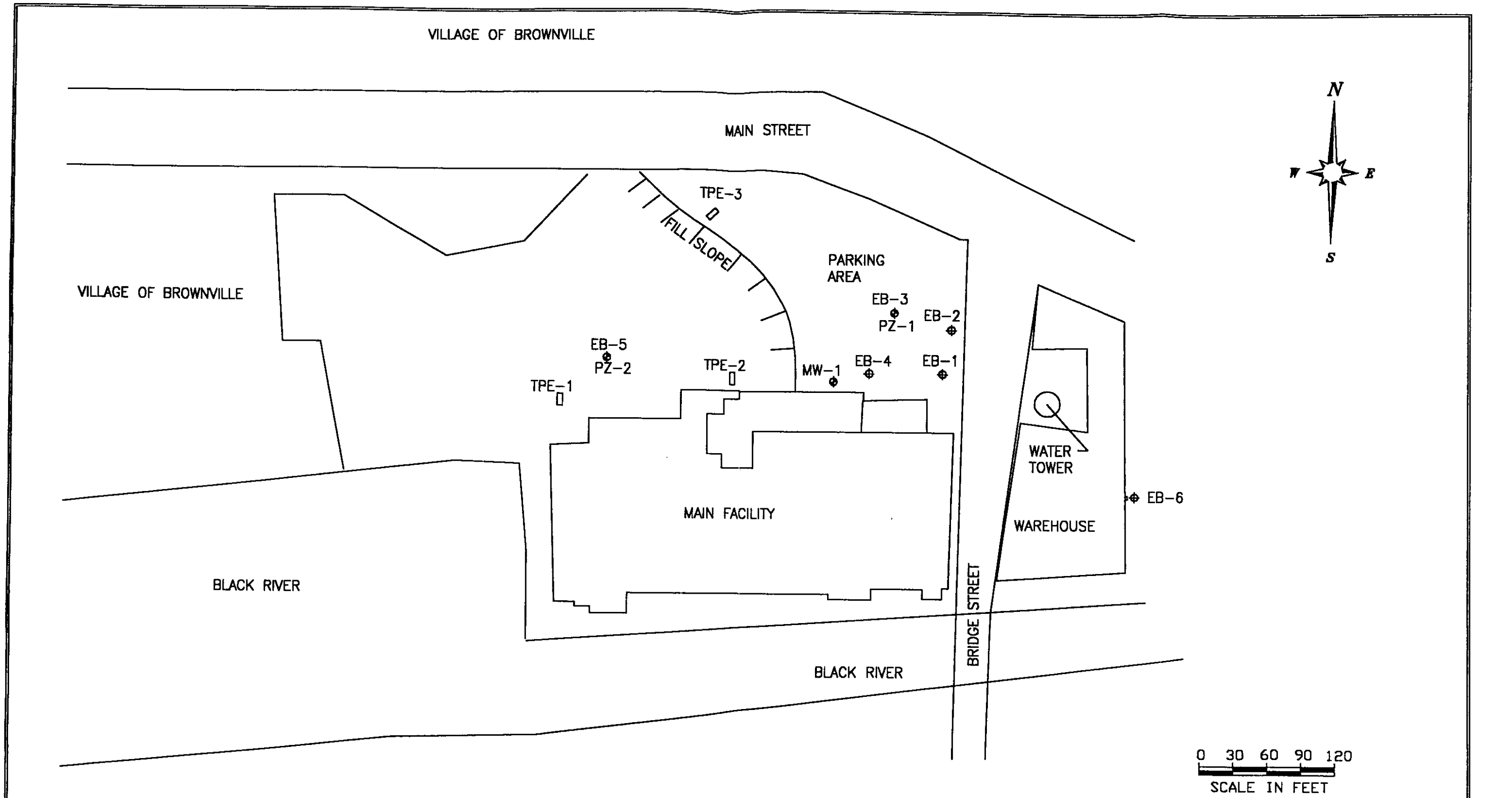
No BN compounds were detected above the method detection limit in the groundwater samples from MW-1 and PZ-2. However, the analytical method detection limit was reported higher than the water quality standards for benzidine, 3,3'-dichlorobenzidine, benzo(a)anthracene,

chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene. In addition, no BN TICs were reported for either groundwater sample. Groundwater was not analyzed for PCBs.

As can be seen from Table 4, the results of PPM analysis indicates that only lead exceeded the water quality standards in the groundwater sample collected from PZ-2. PZ-2 reported a concentration of 75.2 ug/L of lead, which exceeds the NYSDEC Water Quality Standard of 25 ug/L. MW-1 did not report any exceedances. Please note that the analytical method detection limit for antimony in water (4.5 ug/L) was reported higher than the NYSDEC Water Quality Standard of 3.0 ug/L. However, since antimony was not detected in any of the soil and/or groundwater samples onsite, this should not be considered an issue.

Field and trip blanks were also collected and analyzed for VOC+15, BN+15 and PPM for QA/QC purposes. All compounds were reported as none detected in the blank samples. A complete copy of the laboratory analytical reports can be found in Appendix 2. Appendix 3 contains a copy of the referenced NYSDEC remediation guidance levels for soil and groundwater.

FIGURES



SITE PLAN

SOIL BORING, TEST PIT, AND GROUND-WATER WELL LOCATION MAP

- ⊕ EB-1 = SOIL SAMPLE LOCATION
- ▯ TPE-1 = TEST PIT LOCATION
- ⊕ PZ-1 & MW-1 = PIEZOMETER & MONITORING WELL LOCATION

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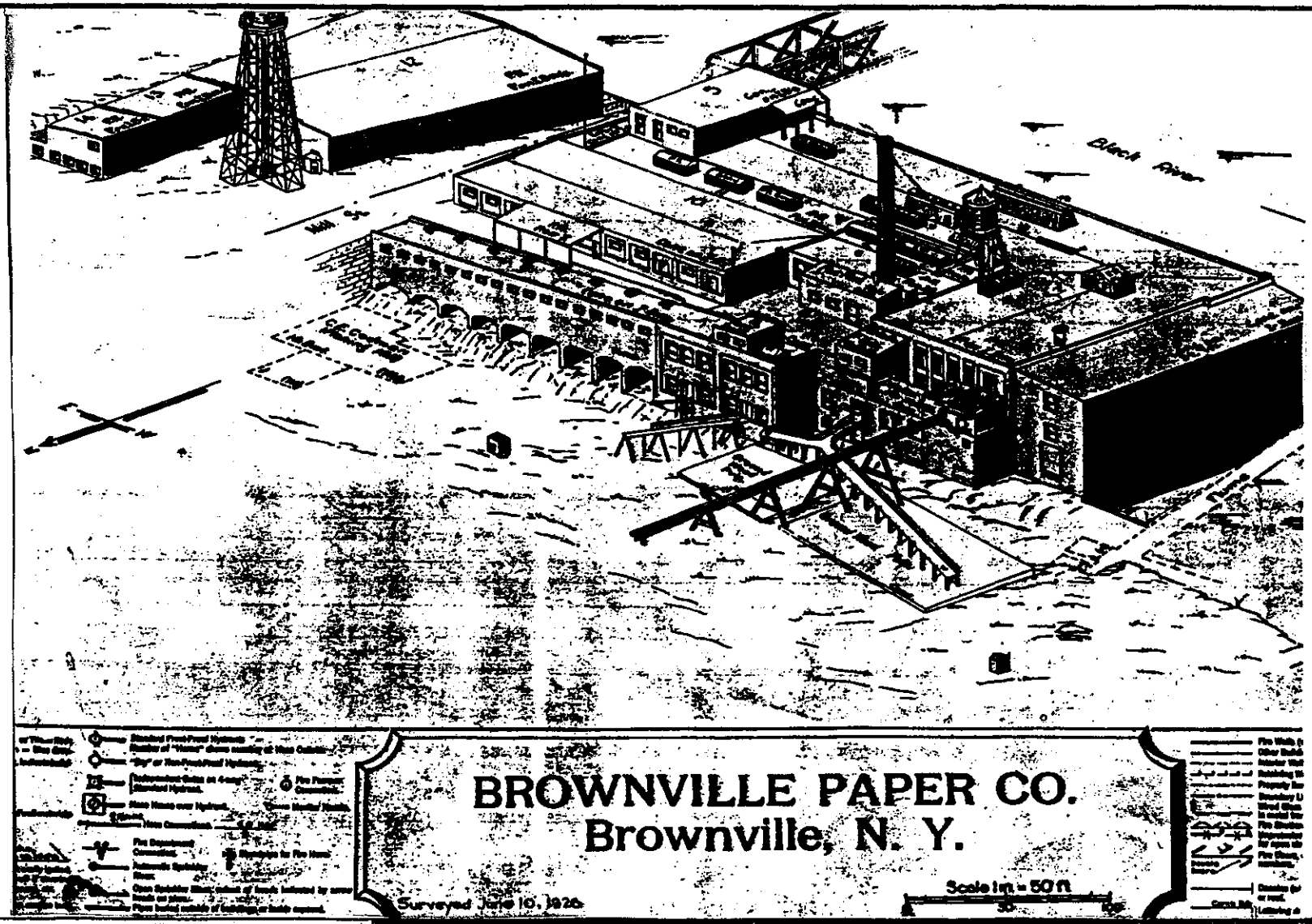
REXAM DSI

BRIDGE STREET
BROWNVILLE, NY

Revisions:

Project No.	1500.REX
Date:	09/18/00
Scale:	As Shown
Drawing No.	FIGURE 1



1926 FIRE INSURANCE MAP

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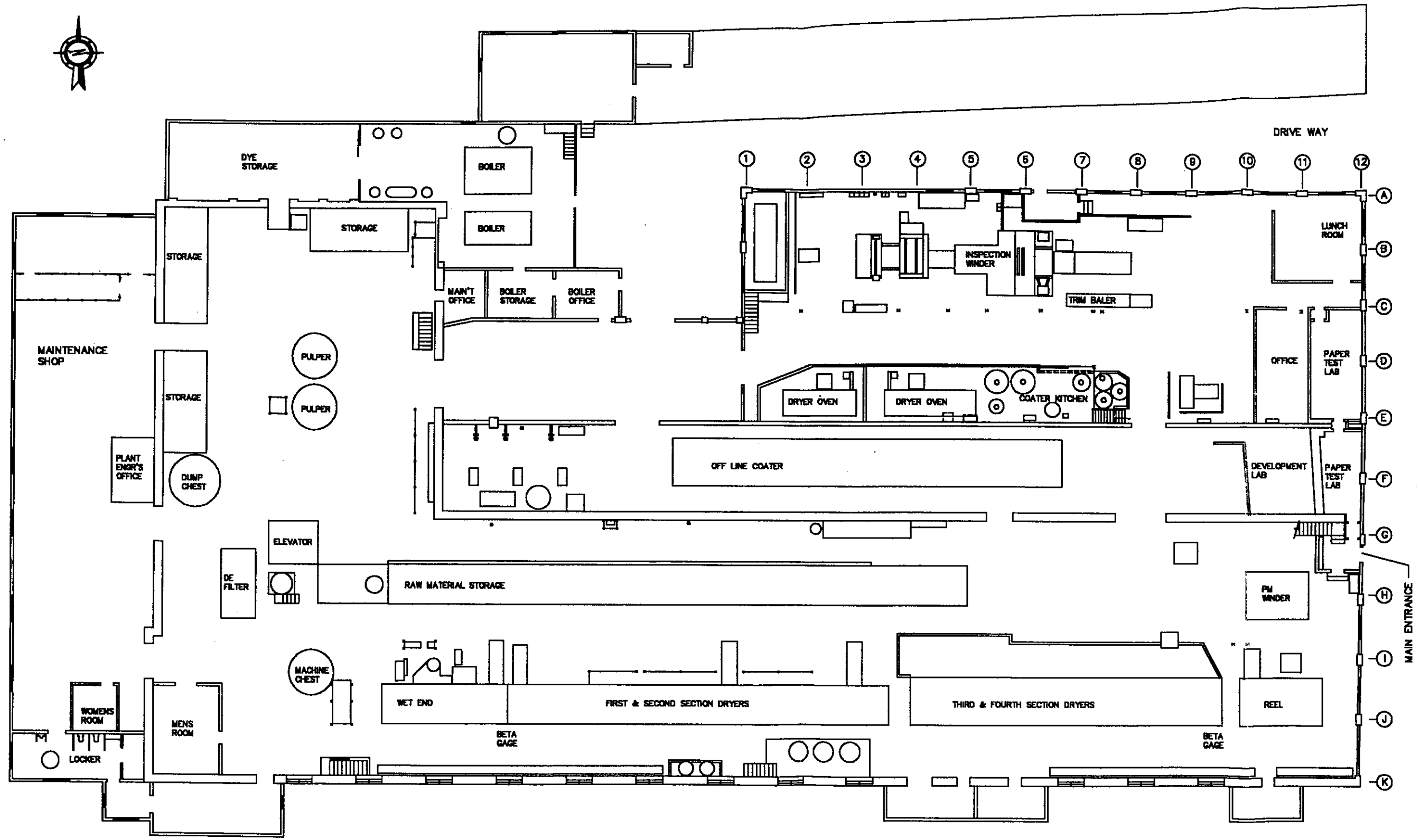
Project No. 1500.REX
Date: 09/18/00
Scale: As Shown
Drawing No.
FIGURE 2



FIRST FLOOR PLAN

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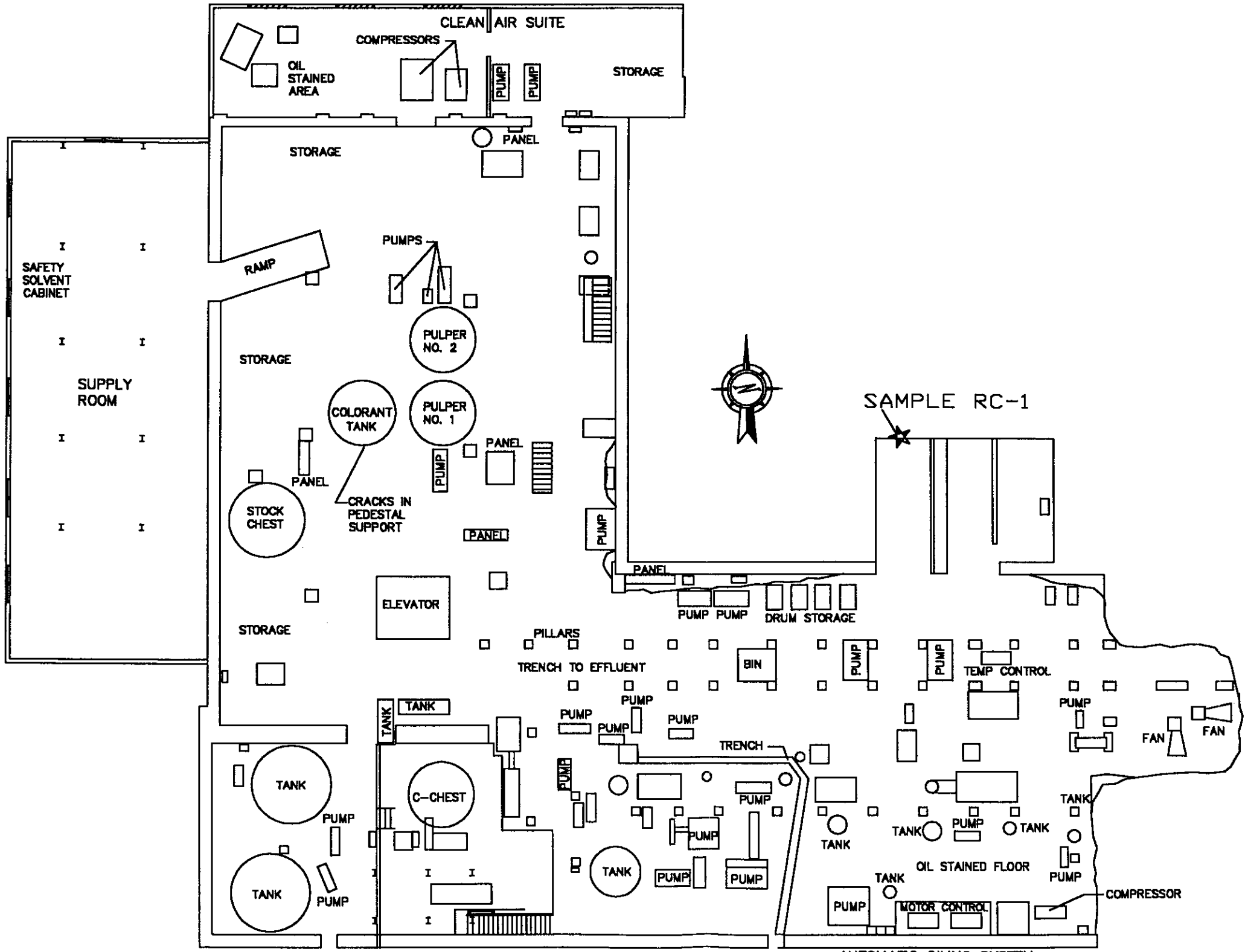
Scale:	*As Shown*
Drawing No.	FIGURE 3



SECOND FLOOR PLAN

SAMPLE LOCATION MAP

☆ RC-1 = ROCK CHIP SAMPLE

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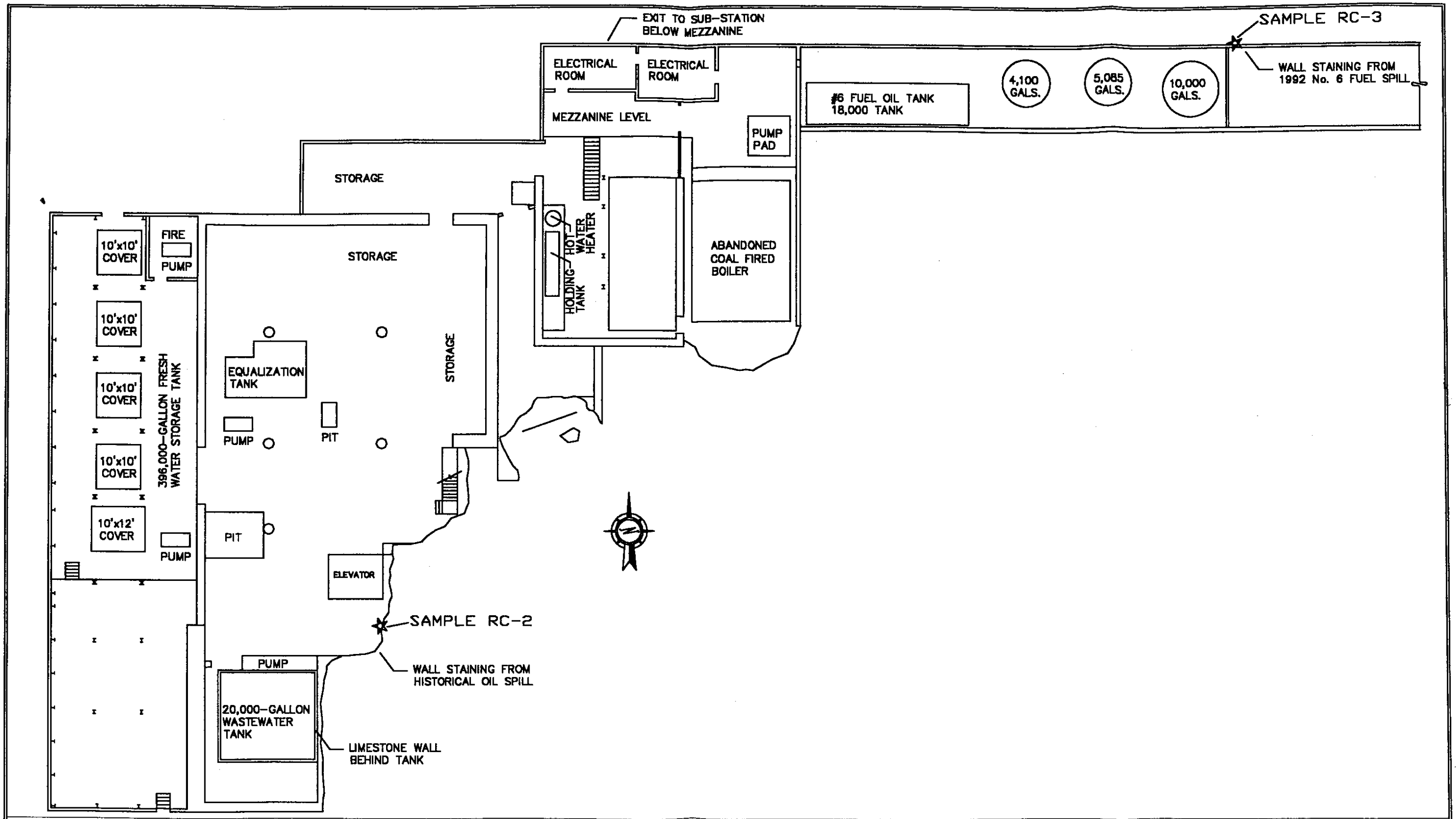
Scale:	*As Shown*
Drawing No.	FIGURE 4



THIRD FLOOR PLAN

SAMPLE LOCATION MAP

☆ RC-1 = ROCK CHIP SAMPLE

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Project No.	1500.REX
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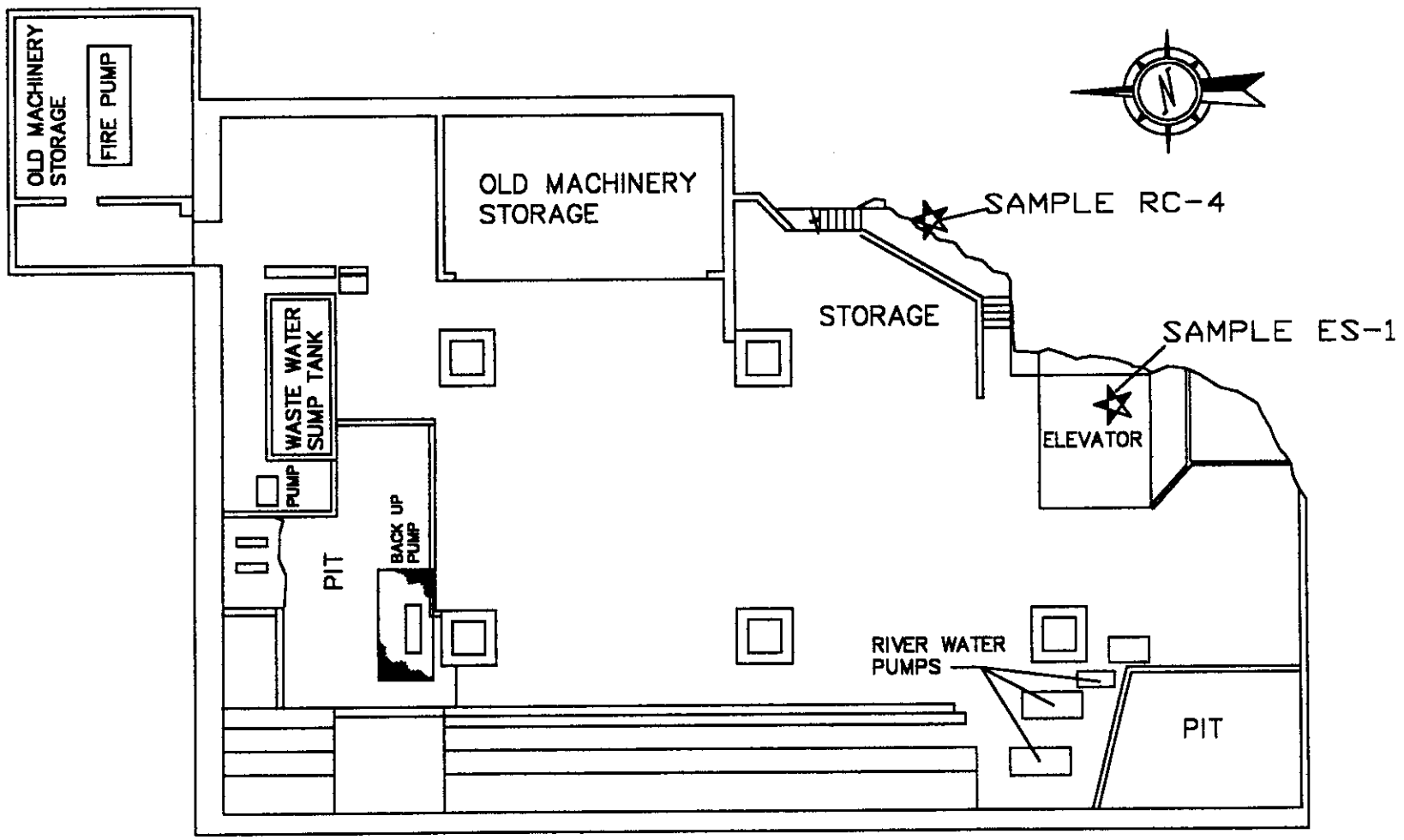
Scale:	As Shown
Drawing No.	FIGURE 5



FOURTH FLOOR PLAN

SAMPLE LOCATION MAP

☆ RC-1 = ROCK CHIP SAMPLE

☆ ES-1 = ELEVATOR SAHFT SAMPLE

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Drawing No.	FIGURE 6

TABLES

TABLE 1

Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Lab Sample ID	Field Sample ID	Sample Depth (ft)	Sample Date	Matrix	Method	Parameters
237812	EB-1	0.5 -1.0	10/25/2000	SOLID	8260B	PPVOA+15
237812	EB-1	0.5 -1.0	10/25/2000	SOLID	8270C	PPBN+15
237812	EB-1	0.5 -1.0	10/25/2000	SOLID	SW-846	PP METALS
237813	EB-2 Catch Basin	0-0.1	10/25/2000	SOLID	8260B	PPVOA+15
237813	EB-2 Catch Basin	0-0.1	10/25/2000	SOLID	8270C	PPBN+15
237813	EB-2 Catch Basin	0-0.1	10/25/2000	SOLID	SW-846	PP METALS
237814	EB-3	16-16.5	10/25/2000	SOLID	8260B	PPVOA+15
237814	EB-3	16-16.5	10/25/2000	SOLID	8270C	PPBN+15
237814	EB-3	16-16.5	10/25/2000	SOLID	8082	PCBs
237814	EB-3	16-16.5	10/25/2000	SOLID	SW-846	PP METALS
237815	EB-4	1.5-2	10/25/2000	SOLID	8260B	PPVOA+15
237815	EB-4	1.5-2	10/25/2000	SOLID	8270C	PPBN+15
237815	EB-4	1.5-2	10/25/2000	SOLID	8082	PCBs
237815	EB-4	1.5-2	10/25/2000	SOLID	SW-846	PP METALS
237839	EB-4	16-16.5	10/25/2000	SOLID	8260B	PPVOA+15
237839	EB-4	16-16.5	10/25/2000	SOLID	8270C	PPBN+15
237839	EB-4	16-16.5	10/25/2000	SOLID	8082	PCBs
237839	EB-4	16-16.5	10/25/2000	SOLID	SW-846	PP METALS
237816	EB-5	1.2-1.7	10/25/2000	SOLID	8260B	PPVOA+15
237816	EB-5	1.2-1.7	10/25/2000	SOLID	8270C	PPBN+15
237817	EB-6 Outfall	0-0.5	10/25/2000	SOLID	8260B	PPVOA+15
237817	EB-6 Outfall	0-0.5	10/25/2000	SOLID	8270C	PPBN+15
237818	TPE-1	3-3.5	10/25/2000	SOLID	8260B	PPVOA+15
237818	TPE-1	3-3.5	10/25/2000	SOLID	8270C	PPBN+15
237819	TPE-2	4-4.5	10/25/2000	SOLID	8260B	PPVOA+15
237819	TPE-2	4-4.5	10/25/2000	SOLID	8270C	PPBN+15
237820	TPE-3	1.5-2	10/25/2000	SOLID	8260B	PPVOA+15
237820	TPE-3	1.5-2	10/25/2000	SOLID	8270C	PPBN+15
237820	TPE-3	1.5-2	10/25/2000	SOLID	8082	PCBs
237820	TPE-3	1.5-2	10/25/2000	SOLID	SW-846	PP METALS
237821	MW-1		10/25/2000	WATER	624	PPVOA+15
237821	MW-1		10/25/2000	WATER	625	PPBN+15
237821	MW-1		10/25/2000	WATER	200 SERIES	PP METALS
237822	PZ-2		10/25/2000	WATER	624	PPVOA+15
237822	PZ-2		10/25/2000	WATER	625	PPBN+15
237822	PZ-2		10/25/2000	WATER	200 SERIES	PP METALS
237823	Trip_Blank-1		10/24/2000	WATER	624	PPVOA+15
237824	Field_Blank-1025		10/25/2000	WATER	624	PPVOA+15
237824	Field_Blank-1025		10/25/2000	WATER	625	PPBN+15
237824	Field_Blank-1025		10/25/2000	WATER	200 SERIES	PP METALS
237825	RC-1_2nd_Floor	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237825	RC-1_2nd_Floor	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237825	RC-1_2nd_Floor	0-0.5	10/26/2000	SOLID	8082	PCBs
237826	RC-2_3rd_Floor	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237826	RC-2_3rd_Floor	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237826	RC-2_3rd_Floor	0-0.5	10/26/2000	SOLID	8082	PCBs
237827	RC-3_3rd_Floor	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237827	RC-3_3rd_Floor	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237827	RC-3_3rd_Floor	0-0.5	10/26/2000	SOLID	8082	PCBs
237828	RC-4_4th_Floor	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237828	RC-4_4th_Floor	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237828	RC-4_4th_Floor	0-0.5	10/26/2000	SOLID	8082	PCBs
237829	ES-1_Elev. Shaft_4th	0-0.5	10/26/2000	SOLID	8260B	PPVOA+15
237829	ES-1_Elev. Shaft_4th	0-0.5	10/26/2000	SOLID	8270C	PPBN+15
237829	ES-1_Elev. Shaft_4th	0-0.5	10/26/2000	SOLID	8082	PCBs
237830	Trip_Blank-2		10/24/2000	WATER	624	PPVOA+15
237831	Field_Blank-1026		10/26/2000	WATER	624	PPVOA+15
237831	Field_Blank-1026		10/26/2000	WATER	625	PPBN+15
237831	Field_Blank-1026		10/26/2000	WATER	200 SERIES	PP METALS

T. 2
Volatile Organic Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	NYSDEC	NYSDEC	EB-1	EB-2	EB-3	EB-4	EB-4	EB-5	EB-6	TPE-1	TPE-2	TPE-3
Sample Depth (feet)	Recommended	Soil Cleanup	Groundwater	0.5-1	Catch Basin	16-16.5	1.5-2	16-16.5	1.2-1.7	0-0.5	3-3.5	4-4.5	1.5-2.0
Lab Sample Number	Soil	Objectives	Standards/	237812	237813	237814	237815	237839	237816	237817	237818	237819	237820
Sampling Date	Cleanup	to Protect	Criteria, Cw	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00
Matrix	Objectives	GW Quality		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Units	ppb or ug/Kg	ppb or ug/Kg	ppb or ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
VOCs Detected													
Methylene Chloride	100	100	5	0.8 J, B	ND (<3.3)	1.5 J, B	ND (<2.8)	ND (<2.9)	ND (<2.9)	2.5 J, B	ND (<3.2)	ND (<4.0)	ND (<2.8)
Trichlorofluoromethane	NS	NS	5	ND (<5.8)	ND (<5.5)	3.7 J	ND (<4.6)	ND (<4.8)	1.0 J	ND (<6.3)	ND (<5.3)	1.1 J	ND (<4.7)
Chlorofrom	300	300	7	ND (<5.8)	ND (<5.5)	ND (<6.5)	ND (<4.6)	ND (<4.8)	ND (<4.9)	ND (<6.3)	ND (<5.3)	ND (<6.7)	ND (<4.7)
trans-1,2-Dichloroethene	300	300	5	ND (<5.8)	ND (<5.5)	ND (<6.5)	ND (<4.6)	ND (<1.9)	ND (<4.9)	ND (<6.3)	ND (<5.3)	ND (<6.7)	ND (<4.7)
cis-1,2-Dichloroethene	NS	NS	5	ND (<5.8)	ND (<5.5)	ND (<6.5)	ND (<4.6)	ND (<4.8)	ND (<4.9)	ND (<6.3)	ND (<5.3)	ND (<6.7)	ND (<4.7)
Trichloroethene	700	700	5.0	ND (<1.2)	ND (<1.1)	ND (<1.3)	ND (<0.9)	ND (<1.0)	ND (<1.0)	ND (<1.2)	ND (<1.0)	ND (<1.3)	ND (<0.9)
Benzene	60	60	0.7	0.9 J	0.9 J	19	ND (<0.9)	0.6 J	ND (<1.0)	1.3	4.1	ND (<1.3)	0.6 J
Tetrachloroethene	1,400	1,400	5	ND (<1.2)	ND (<1.1)	ND (<1.3)	ND (<0.9)	ND (<1.0)	ND (<1.0)	ND (<1.2)	ND (<1.0)	ND (<1.3)	ND (<0.9)
Toluene	1,500	1,500	5	3.3 J	1.4 J	18	0.6 J	1.1 J	0.7 J	1.5 J	4.6 J	1.3 J	1.3 J
Ethylbenzene	5,500	5,500	5	ND (<4.7)	ND (<4.4)	1.8 J	ND (<3.7)	ND (<3.8)	ND (<3.9)	ND (<5.0)	0.5 J	ND (<5.4)	ND (<3.7)
Total Xylenes	1,200	1,200	5	3.6 J	0.6 J	31	ND (<4.6)	ND (<4.8)	ND (<4.9)	ND (<6.3)	1.3 J	ND (<6.7)	0.6 J
Total Detected VOCs	NA	NA	NA	7.8	2.9	75.0	0.6	1.7	1.7	5.3	10.5	2.4	2.5
VOC TICs Detected													
Unknown	NA	NA	NA	16						78	14		
Unknown Alkane	NA	NA	NA				6.8			8.8			
Unknown Alkene	NA	NA	NA							518			
Unknown Aromatic	NA	NA	NA			18.8							
Unknown Cycloalkane	NA	NA	NA										
Unknown Siloxane	NA	NA	NA	16									
Coeluting Unknows	NA	NA	NA										
Methyl Cyclohexane	NA	NA	NA	8.5									
Hexanal	NA	NA	NA		7.5	30					11		
Trimethylbenzene Isomer	NA	NA	NA			49							
C5H12 Alkane	NA	NA	NA							17			
C11H24 Alkane	NA	NA	NA										
C12H26 Alkane	NA	NA	NA										
C13H28 Alkane	NA	NA	NA										
C5H10 Alkene	NA	NA	NA							20			
C10H14 Aromatic	NA	NA	NA			11							
C9H8 Aromatic	NA	NA	NA			15							

T. 2
Volatile Organic Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Soil Cleanup Objectives ppb or ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ppb or ug/Kg	NYSDEC Groundwater Standards/ Criteria, Cw ppb or ug/L	EB-1 0.5-1 237812 10/25/00 SOLID ug/Kg	EB-2 Catch Basin 237813 10/25/00 SOLID ug/Kg	EB-3 16-16.5 237814 10/25/00 SOLID ug/Kg	EB-4 1.5-2 237815 10/25/00 SOLID ug/Kg	EB-4 16-16.5 237839 10/25/00 SOLID ug/Kg	EB-5 1.2-1.7 237816 10/25/00 SOLID ug/Kg	EB-6 0-0.5 237817 10/25/00 SOLID ug/Kg	TPE-1 3-3.5 237818 10/25/00 SOLID ug/Kg	TPE-2 4-4.5 237819 10/25/00 SOLID ug/Kg	TPE-3 1.5-2.0 237820 10/25/00 SOLID ug/Kg
C11H22 Cycloalkane	NA	NA	NA										
C12H24 Cycloalkane	NA	NA	NA										
C5H100 Ketone	NA	NA	NA										
C8H160 Ketone	NA	NA	NA										
Nahpthalene	NA	NA	NA			280							
Tetrahydromethyl-naphthalene Isomers	NA	NA	NA										
Bezothiophene Isomer	NA	NA	NA			13							
Methylnaphthalene Isomer	NA	NA	NA			9.1							
Decahydronaphthalene Isomers	NA	NA	NA										
Idene Isomers	NA	NA	NA				5.1						
2-Propanone	NA	NA	NA							17			
2-Butanone	NA	NA	NA							9.7			
2-Hexanone	NA	NA	NA										
Acetic Acid, methyl ester	NA	NA	NA										
Butanal	NA	NA	NA										
Pentanal	NA	NA	NA										
Total VOC TICs	NA	NA	NA	40.5	7.5	425.9	11.9	ND	ND	668.5	25.0	ND	ND
Total VOCs	NA	NA	NA	48.3	10.4	500.9	12.5	1.7	1.7	674	35.5	2.4	2.5

TA 2
Volatile Organic Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	NYSDEC	NYSDEC	RC-1	RC-2	RC-3	RC-4	ES-1	MW-1	PZ-2	FIELD	FIELD	TRIP	TRIP
Sample Depth (feet)	Recommended	Soil Cleanup	Groundwater	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5			BLANK	BLANK	BLANK-1	BLANK-2
Lab Sample Number	Soil	Objectives	Standards/	237825	237826	237827	237828	237829	237821	237822	237824	237831	237823	237830
Sampling Date	Cleanup	to Protect	Criteria, Cw	10/26/00	10/25/00	10/26/00	10/26/00	10/26/00	10/25/00	10/25/00	10/25/00	10/26/00	10/24/00	10/24/00
Matrix	Objectives	GW Quality		SOLID	SOLID	SOLID	SOLID	SOLID	WATER	WATER	WATER	WATER	WATER	WATER
Units	ppb or ug/Kg	ppb or ug/Kg	ppb or ug/L	ug/Kg	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
VOCs Detected														
Methylene Chloride	100	100	5	ND (<2.8)	0.8 J, B	1.4 J, B	1.1 J, B	1.7 J, B	ND (<0.8)	ND (<0.8)	ND (<0.8)	8.6	ND (<0.8)	ND (<0.8)
Trichlorofluoromethane	NS	NS	5	ND (<4.6)	ND (<5.2)	5.9	ND (<5.0)	ND (<7.8)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Chlorofrom	300	300	7	ND (<4.6)	1.8 J	0.6 J	2.1 J	ND (<7.8)	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)
trans-1,2-Dichloroethene	300	300	5	ND (<4.6)	ND (<5.2)	ND (<5.0)	ND (<5.0)	2.3 J	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)
cis-1,2-Dichloroethene	NS	NS	5	ND (<4.6)	ND (<5.2)	ND (<5.0)	ND (<5.0)	7.6 J	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)
Trichloroethene	700	700	5.0	ND (<0.9)	0.8 J	ND (<1.0)	ND (<1.0)	8.4	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)	ND (<0.4)
Benzene	60	60	0.7	ND (<0.9)	11	ND (<1.0)	1.6	3.2	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Tetrachloroethene	1,400	1,400	5	2.9	ND (<1.0)	ND (<1.0)	0.8 J	12	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Toluene	1,500	1,500	5	0.7 J	7.2	2.6 J	6.8	11	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Ethylbenzene	5,500	5,500	5	ND (<3.7)	ND (<4.2)	ND (<4.0)	ND (<4.0)	4.1 J	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Total Xylenes	1,200	1,200	5	ND (<4.6)	ND (<5.2)	ND (<5.0)	ND (<5.0)	11	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Total Detected VOCs	NA	NA	NA	3.6	21.6	10.5	12.4	61.3	ND	ND	ND	8.6	ND	ND
VOC TICs Detected														
Unknown	NA	NA	NA				78.3	490						
Unknown Alkane	NA	NA	NA			6.2	31							
Unknown Alkene	NA	NA	NA											
Unknown Aromatic	NA	NA	NA											
Unknown Cycloalkane	NA	NA	NA				21							
Unknown Siloxane	NA	NA	NA											
Coeluting Unknows	NA	NA	NA			14.4	29							
Methyl Cyclohexane	NA	NA	NA											
Hexanal	NA	NA	NA											
Trimethylbenzene isomer	NA	NA	NA											
C5H12 Alkane	NA	NA	NA											
C11H24 Alkane	NA	NA	NA					490						
C12H26 Alkane	NA	NA	NA					580						
C13H28 Alkane	NA	NA	NA					450						
C5H10 Alkene	NA	NA	NA											
C10H14 Aromatic	NA	NA	NA											
C9H8 Aromatic	NA	NA	NA											

TA 2
Volatile Organic Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Soil Cleanup Objectives ppb or ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ppb or ug/Kg	NYSDEC Groundwater Standards/ Criteria, Cw ppb or ug/L	RC-1 0-0.5 237825 10/26/00 SOLID ug/Kg	RC-2 0-0.5 237826 10/25/00 SOLID ug/L	RC-3 0-0.5 237827 10/26/00 SOLID ug/Kg	RC-4 0-0.5 237828 10/26/00 SOLID ug/Kg	ES-1 0-0.5 237829 10/26/00 SOLID ug/Kg	MW-1 237821 10/25/00 WATER ug/L	PZ-2 237822 10/25/00 WATER ug/L	FIELD BLANK 237824 10/25/00 WATER ug/L	FIELD BLANK 237831 10/26/00 WATER ug/L	TRIP BLANK-1 237823 10/24/00 WATER ug/L	TRIP BLANK-2 237830 10/24/00 WATER ug/L
C11H22 Cycloalkane	NA	NA	NA					840						
C12H24 Cycloalkane	NA	NA	NA					390						
C5H100 Ketone	NA	NA	NA		10									
C8H160 Ketone	NA	NA	NA		11									
Nahpthalene	NA	NA	NA			7.5								
Tetrahydromethyl-naphthalene Isomers	NA	NA	NA			15.8								
Bezothiophene Isomer	NA	NA	NA											
Methylnaphthalene Isomer	NA	NA	NA											
Decahydronaphthalene Isomers	NA	NA	NA				22	380						
Idene Isomers	NA	NA	NA			20.6								
2-Propanone	NA	NA	NA	5.4	36	5.4	42							
2-Butanone	NA	NA	NA		16		20							
2-Hexanone	NA	NA	NA		6.9									
Acetic Acid, methyl ester	NA	NA	NA		6.2									
Butanal	NA	NA	NA		8.3									
Pentanal	NA	NA	NA		6.2									
Total VOC TICs	NA	NA	NA	5.4	100.6	69.9	243.3	3620	ND	ND	ND	ND	ND	ND
Total VOCs	NA	NA	NA	9.0	122.2	80.4	255.7	3681	ND	ND	ND	9	ND	ND

Notes:

ppm = Parts Per Million = mg/Kg

ppb = Parts Per Billion = ug/L

Bolded = Compounds which exceed NYSDEC standards.

HWR-94-4046, 1/24/94 (TAGM 4046)

NA = Not Applicable.

ND = Not Detected.

ND(<) = Less than the Reporting Limit.

NS = No criteria listed in TAGM 4046 or NYSDEC Water Quality Standards.

J = Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified quantitation limit but greater than zero. The concentration given is an approximate value.

VOC = Volatile organic compounds via USEPA Method 8260B.

TIC = Tentatively identified compounds via USEPA Method 8260B.

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	EB-1 0.5-1 237812 10/25/00 SOLID ug/Kg	EB-2 Catch Basin 237813 10/25/00 SOLID ug/Kg	EB-3 16-16.5 237814 10/25/00 SOLID ug/Kg	EB-4 1.5-2 237815 10/25/00 SOLID ug/Kg	EB-4 16-16.5 237839 10/25/00 SOLID ug/Kg	EB-5 1.2-1.7 237816 10/25/00 SOLID ug/Kg
Detected SVOCs									
Naphthalene	13,000	13,000	10	ND (<390)	ND (<400)	2,300	71 J	16 J	15 J
Acenaphthylene	41,000	41,000	20	ND (<390)	12 J	850 J	290 J	33 J	39 J
Acenaphthene	50,000	90,000	20	ND (<390)	12 J	250 J	54 J	7.8 J	ND (<370)
Fluorene	50,000	350,000	50	ND (<390)	23 J	850 J	78 J	12 J	ND (<370)
N-Nitrosodiphenylamine	NS	NS	NS	ND (<390)	ND (<400)	ND (<2,200)	ND (<360)	ND (<360)	ND (<370)
Phenanthrene	50,000	220,000	50	63 J	160 J	12,000	1,000	110 J	78 J
Anthracene	50,000	700,000	50	ND (<390)	31 J	770 J	380	32 J	26 J
Di-n-butylphthalate	8,100	8,100	50	ND (<390)	95 J	ND (<2,200)	ND (<360)	ND (<360)	ND (<370)
Fluoranthene	50,000	1,900,000	50	42 J	350 J	12,000	2,500	190 J	290 J
Pyrene	50,000	665,000	50	43 J	360 J	9,200	2,600	230 J	350 J
Benzidine	NS	NS	5	ND (<600)	ND (<1,600)	ND (<8,700)	ND (<1,400)	ND (<1,400)	ND (<1,500)
Butylbenzylphthalate	50,000	122,000	50	ND (<390)	ND (<400)	ND (<2,200)	ND (<360)	ND (<360)	ND (<370)
3,3'-Dichlorobenzidine	NS	NS	5	ND (<80)	ND (<800)	ND (<4,300)	ND (<720)	ND (<720)	ND (<740)
Benzo(a)anthracene	224 or MDL	3,000	0.002	ND (<39)	160	**3,200**	**1,300**	120	**240**
Chrysene	400	400	0.002	70 J	300 J	**3,700**	**1,300**	160 J	180 J
bis(2-Ethylhexyl)phthalate	50,000	435,000	5	ND (<390)	450	ND (<2,200)	ND (<360)	80 J	ND (<370)
Di-n-octylphthalate	50,000	120,000	50	ND (<390)	280 J	ND (<2,200)	ND (<360)	ND (<360)	ND (<370)
Benzo(b)fluoranthene	1,100	1,100	0.002	30 J	380	**4,000**	**2,000**	180	220
Benzo(k)fluoranthene	1,100	1,100	0.002	ND (<39)	200	**1,700**	940	74	110
Benzo(a)pyrene	61 or MDL	11,000	MDL	8.8 J	**160**	**2,800**	**1,300**	**110**	**180**
Indeno(1,2,3-cd)pyrene	3,200	3,200	0.002	ND (<39)	68	1,300	490	39	74
Dibenz(a,h)anthracene	14 or MDL	165,000,000	50	ND (<39)	ND (<40)	**260**	**81**	ND (<36)	19 J
Benzo(g,h,i)perylene	50,000	800,000	5	8.9 J	69 J	1,400 J	370	31 J	88 J
Total Detected SVOCs				266	3,110	56,580	14,754	1,425	1,909

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	EB-1 0.5-1 237812 10/25/00 SOLID ug/Kg	EB-2 Catch Basin 237813 10/25/00 SOLID ug/Kg	EB-3 16-16.5 237814 10/25/00 SOLID ug/Kg	EB-4 1.5-2 237815 10/25/00 SOLID ug/Kg	EB-4 16-16.5 237839 10/25/00 SOLID ug/Kg	EB-5 1.2-1.7 237816 10/25/00 SOLID ug/Kg
Detected SVOC TICs									
beta -Amyrin	NA	NA	NA		7,400				
C19H40 Alkane	NA	NA	NA						
C15H10/C15H12 PAHs	NA	NA	NA				310		
C16H14 PAH	NA	NA	NA	400					
C17H12 PAH	NA	NA	NA						
C17H16 PAH	NA	NA	NA						
C20H12 PAH	NA	NA	NA			2,600	2,660		
Unknown	NA	NA	NA		49,300	8,600	2,970	3,440	
Unknown Alkane	NA	NA	NA		55,500	28,500	1,190	3,500	
Unknown Alkane/Unknown	NA	NA	NA		14,000	3,800			
Unknown Sterol	NA	NA	NA			2,700			
Vitamin E	NA	NA	NA		11,000				
5-Pentyl-1,3-benzenediol	NA	NA	NA			2,300			
Total Detected SVOC TICs				400	137,200	48,500	7,130	6,940	ND
Total SVOCs & TICs				666	140,310	105,080	21,884	8,365	1,909

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	NYSDEC	NYSDEC	EB-6	TPE-1	TPE-2	TPE-3	RC-1	RC-2
Sample Depth (feet)	Recommended	Soil Cleanup	Groundwater	0-0.5	3-3.5	4-4.5	1.5-2.0	0-0.5	0-0.5
Lab Sample Number	Cleanup	Objectives	Standards/	237817	237818	237819	237820	237825	237826
Sampling Date	Objectives	to Protect	Criteria	10/25/00	10/25/00	10/25/00	10/25/00	10/26/00	10/26/00
Matrix	Soil	GW Quality		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Units	ug/Kg	ug/Kg	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Detected SVOCs									
Naphthalene	13,000	13,000	10	ND (<1,500)	53 J	ND (<460)	ND (<350)	ND (<1,700)	**ND (<43,000)**
Acenaphthylene	41,000	41,000	20	ND (<5,400)	69 J	ND (<460)	ND (<350)	ND (<1,700)	**ND (<43,000)**
Acenaphthene	50,000	90,000	20	ND (<5,400)	38 J	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
Fluorene	50,000	350,000	50	ND (<5,400)	72 J	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
N-Nitrosodiphenylamine	NS	NS	NS	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	190 J	ND (<43,000)
Phenanthrene	50,000	220,000	50	ND (<5,400)	800	54 J	ND (<350)	120 J	1,000 J
Anthracene	50,000	700,000	50	ND (<5,400)	100 J	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
Di-n-butylphthalate	8,100	8,100	50	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	ND (<1,700)	**ND (<43,000)**
Fluoranthene	50,000	1,900,000	50	ND (<5,400)	870	15 J	8.5 J	280 J	2,500 J
Pyrene	50,000	665,000	50	ND (<5,400)	700	17 J	12 J	420 J	5,400 J
Benzidine	NS	NS	5	ND (<22,000)	ND (<1,400)	ND (<1,800)	ND (<1,400)	ND (<6,700)	ND (<170,000)
Butylbenzylphthalate	50,000	122,000	50	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
3,3'-Dichlorobenzidine	NS	NS	5	ND (<11,000)	ND (<720)	ND (<920)	ND (<700)	ND (<3,300)	ND (<87,000)
Benzo(a)anthracene	224 or MDL	3,000	0.002	ND (<540)	**310**	ND (<46)	ND (<35)	180	ND (<4,300)
Chrysene	400	400	0.002	**ND (<5,400)**	350 J	40 J	8.3 J	**2,000**	**ND (<43,000)**
bis(2-Ethylhexyl)phthalate	50,000	435,000	5	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	980 J	ND (<43,000)
Di-n-octylphthalate	50,000	120,000	50	ND (<5,400)	ND (<360)	ND (<460)	ND (<350)	ND (<1,700)	15,000 J
Benzo(b)fluoranthene	1,100	1,100	0.002	ND (<540)	390	11 J	10 J	260	**ND (<4,300)**
Benzo(k)fluoranthene	1,100	1,100	0.002	ND (<540)	160	ND (<46)	ND (<35)	44 J	**ND (<4,300)**
Benzo(a)pyrene	61 or MDL	11,000	MDL	ND (<540)	**260**	ND (<46)	ND (<35)	**310**	ND (<4,300)
Indeno(1,2,3-cd)pyrene	3,200	3,200	0.002	ND (<540)	130	ND (<46)	ND (<35)	ND (<170)	**ND (<4,300)**
Dibenz(a,h)anthracene	14 or MDL	165,000,000	50	ND (<540)	22 J	ND (<46)	ND (<35)	ND (<170)	ND (<4,300)
Benzo(g,h,i)perylene	50,000	800,000	5	ND (<5,400)	160 J	ND (<460)	ND (<350)	ND (<1,700)	ND (<43,000)
Total Detected SVOCs				ND	4,484	137	38.8	4,784	23,900

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	EB-6 0-0.5 237817 10/25/00 SOLID ug/Kg	TPE-1 3-3.5 237818 10/25/00 SOLID ug/Kg	TPE-2 4-4.5 237819 10/25/00 SOLID ug/Kg	TPE-3 1.5-2.0 237820 10/25/00 SOLID ug/Kg	RC-1 0-0.5 237825 10/26/00 SOLID ug/Kg	RC-2 0-0.5 237826 10/26/00 SOLID ug/Kg
Detected SVOC TICs									
beta -Amyrin	NA	NA	NA						
C19H40 Alkane	NA	NA	NA						
C15H10/C15H12 PAHs	NA	NA	NA						
C16H14 PAH	NA	NA	NA						
C17H12 PAH	NA	NA	NA						
C17H16 PAH	NA	NA	NA						
C20H12 PAH	NA	NA	NA						
Unknown	NA	NA	NA	259,400	2,040				5,540,000
Unknown Alkane	NA	NA	NA			420		209,600	
Unknown Alkane/Unknown	NA	NA	NA						
Unknown Sterol	NA	NA	NA		380				
Vitamin E	NA	NA	NA						
5-Pentyl-1,3-benzenediol	NA	NA	NA						
Total Detected SVOC TICs				259,400	2,420	420	ND	209,600	5,540,000
Total SVOCs & TICs				259,400	6,904	557	38.8	214,384	5,563,900

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	RC-3 0-0.5 237827 10/26/00 SOLID ug/Kg	RC-4 0-0.5 237828 10/26/00 SOLID ug/Kg	ES-1 0-0.5 237829 10/26/00 SOLID ug/Kg	Field Blank 237831 10/26/00 WATER ug/L	MW-1 237821 10/25/00 WATER ug/L	PZ-2 237822 10/25/00 WATER ug/L	Field Blank 237824 10/25/00 WATER ug/L
Detected SVOCs										
Naphthalene	13,000	13,000	10	ND (<8,900)	**ND (<43,000)**	20 J	ND (<0.8)	ND (<0.9)	ND (<0.9)	ND (<1.0)
Acenaphthylene	41,000	41,000	20	ND (<8,900)	**ND (<43,000)**	13 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.7)
Acenaphthene	50,000	90,000	20	220 J	ND (<43,000)	17 J	ND (<0.6)	ND (<0.6)	ND (<0.6)	ND (<0.8)
Fluorene	50,000	350,000	50	200 J	ND (<43,000)	28 J	ND (<0.8)	ND (<0.8)	ND (<0.8)	ND (<1.0)
N-Nitrosodiphenylamine	NS	NS	NS	ND (<8,900)	ND (<43,000)	64 J	ND (<0.6)	ND (<0.6)	ND (<0.6)	ND (<0.7)
Phenanthrene	50,000	220,000	50	1,100 J	ND (<43,000)	240 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.6)
Anthracene	50,000	700,000	50	ND (<8,900)	ND (<43,000)	60 J	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.4)
Di-n-butylphthalate	8,100	8,100	50	ND (<8,900)	**ND (<43,000)**	200 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.7)
Fluoranthene	50,000	1,900,000	50	600 J	1,500 J	470 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.6)
Pyrene	50,000	665,000	50	7,400 J	6,600 J	420 J	ND (<0.6)	ND (<0.6)	ND (<0.6)	ND (<0.7)
Benzidine	NS	NS	5	ND (<36,000)	ND (<170,000)	ND (<2,200)	ND (<14)	**ND (<15)**	**ND (<15)**	ND (<18)
Butylbenzylphthalate	50,000	122,000	50	ND (<8,900)	ND (<43,000)	ND (<560)	ND (<0.7)	ND (<0.8)	ND (<0.8)	ND (<0.9)
3,3'-Dichlorobenzidine	NS	NS	5	ND (<18,000)	ND (<87,000)	ND (<1,100)	ND (<5.0)	**ND (<5.3)**	**ND (<5.3)**	ND (<6.3)
Benzo(a)anthracene	224 or MDL	3,000	0.002	**1,800**	890 J	210	ND (<0.4)	**ND (<0.5)**	**ND (<0.5)**	ND (<0.5)
Chrysene	400	400	0.002	5,400 J	1,400 J	260 J	ND (<0.7)	**ND (<0.7)**	**ND (<0.7)**	ND (<0.9)
bis(2-Ethylhexyl)phthalate	50,000	435,000	5	ND (<8,900)	ND (<43,000)	3,700	ND (<2.1)	ND (<2.2)	ND (<2.2)	ND (<2.6)
Di-n-octylphthalate	50,000	120,000	50	ND (<8,900)	ND (<43,000)	420 J	ND (<0.3)	ND (<0.4)	ND (<0.4)	ND (<0.4)
Benzo(b)fluoranthene	1,100	1,100	0.002	**1,300**	**ND (<4,300)**	490	ND (<0.4)	**ND (<0.4)**	**ND (<0.4)**	ND (<0.5)
Benzo(k)fluoranthene	1,100	1,100	0.002	390 J	**ND (<4,300)**	90	ND (<0.7)	**ND (<0.7)**	**ND (<0.7)**	ND (<0.9)
Benzo(a)pyrene	61 or MDL	11,000	MDL	**1,500**	**5,000**	**230**	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.3)
Indeno(1,2,3-cd)pyrene	3,200	3,200	0.002	ND (<890)	**ND (<4,300)**	55 J	ND (<0.5)	**ND (<0.5)**	**ND (<0.5)**	ND (<0.7)
Dibenz(a,h)anthracene	14 or MDL	165,000,000	50	ND (<890)	ND (<4,300)	ND (<56)	ND (<0.3)	ND (<0.3)	ND (<0.3)	ND (<0.4)
Benzo(g,h,i)perylene	50,000	800,000	5	780 J	ND (<43,000)	74 J	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.6)
Total Detected SVOCs				20,690	15,390	7,061	ND	ND	ND	ND

Table 3
Base Neutral Compounds
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID Sample Depth (feet) Lab Sample Number Sampling Date Matrix Units	NYSDEC Recommended Cleanup Objectives Soil ug/Kg	NYSDEC Soil Cleanup Objectives to Protect GW Quality ug/Kg	NYSDEC Groundwater Standards/ Criteria ug/L	RC-3 0-0.5 237827 10/26/00 SOLID ug/Kg	RC-4 0-0.5 237828 10/26/00 SOLID ug/Kg	ES-1 0-0.5 237829 10/26/00 SOLID ug/Kg	Field Blank 237831 10/26/00 WATER ug/L	MW-1 237821 10/25/00 WATER ug/L	PZ-2 237822 10/25/00 WATER ug/L	Field Blank 237824 10/25/00 WATER ug/L
Detected SVOC TICs										
beta -Amyrin	NA	NA	NA							
C19H40 Alkane	NA	NA	NA	14,000						
C15H10/C15H12 PAHs	NA	NA	NA	14,000						
C16H14 PAH	NA	NA	NA	38,000						
C17H12 PAH	NA	NA	NA							
C17H16 PAH	NA	NA	NA	40,000						
C20H12 PAH	NA	NA	NA							
Unknown	NA	NA	NA	71,000	410,000	45,000				
Unknown Alkane	NA	NA	NA	11,000		15,400				
Unknown Alkane/Unknown	NA	NA	NA							
Unknown Sterol	NA	NA	NA		100,000					
Vitamin E	NA	NA	NA							
5-Pentyl-1,3-benzenediol	NA	NA	NA							
Total Detected SVOC TICs				188,000	510,000	60,400	ND	ND	ND	ND
Total SVOCs & TICs				208,690	525,390	67,461	ND	ND	ND	ND

Notes:

ppm = Parts PerMillion = mg/Kg

ppb = Parts Per Billion = ug/L

Bolded = Compounds which exceed NYSDEC standards.

HWR-94-4046, 1/24/94 (TAGM 4046)

NA = Not Applicable.

ND = Not Detected.

ND(<) = Less than the Reporting Limit.

NS = No criteria listed in TAGM or NYSDEC Water Qality Standards.

B = The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

J = Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified quantitation limit but greater than zero. The concentration given is an approximate value.

SVOC = Semi-volatile organic compounds via USEPA Method 8270C.

TIC = Tentatively identified compounds via USEPA Method 8270C.

TABLE 4
Priority Pollutant Metals
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

ample ID	NYSDEC	NYSDEC	EB-1	EB-2	EB-3	EB-4	EB-4	TPE-3	MW-1	PZ-2	Field	Field
ample Depth (ft.)	Recommended	Water	0.5-1.0	Catch Basin	16-16.5	1.5-2	16-16.5	1.5-2			Blank	Blank
ab Sample No.	Soil	Quality	237812	237813	237814	237815	237839	237820	237821	237822	237824	237831
ampling Date	Cleanup	Regulations	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/25/00	10/26/00
atrix	Objectives		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	WATER	WATER	WATER	WATER
nits	(mg/Kg)	(ug/L)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	ug/L	ug/L	ug/L	ug/L
ETALS												
ntimony	SB	3	ND (<1.4) N	ND (<1.4) N	ND (<1.5) N	ND (<1.1) N	ND (<1.3) N	ND (<1.2) N	**ND (<4.5)**	**ND (<4.5)**	**ND (<4.5)**	**ND (<4.5)**
rsenic	7.5 or SB	25	**9.9**	0.87	5.1	2.2	1.6	ND (<0.67)	ND (<3.6)	6.6	ND (<3.6)	ND (<3.6)
eryllium	0.16 or SB	NS	**0.59**	**0.20**	**0.29**	**0.21**	**0.24** B	**0.39** B	ND (<0.20)	ND (<0.20)	ND (<0.20)	ND (<0.20)
admium	1 or SB	5	ND (<0.094)	ND (<0.096)	ND (<0.10)	ND (<0.079)	ND (<0.087)	ND (<0.084)	ND (<0.40)	ND (<0.40)	ND (<0.40)	ND (<0.40)
hromium	10 or SB	50	6.4	**14.0**	5.7	5.5	6.7	4.6	ND (<1.1)	1.5	ND (<1.1)	ND (<1.1)
opper	25 or SB	200	12.2 *	15.3 *	**35.5** *	15.7 *	11.3 *	6.6 *	ND (<2.7)	3.4	ND (<2.7)	ND (<2.7)
ead	SB	25	9.6 *	12.4 *	33.3 *	21.8 *	34.2 *	3.0 *	ND (<2.1)	**75.2**	ND (<2.1)	ND (<2.1)
lercury	0.1	0.7	0.04	ND (<0.020)	**0.34**	0.07	**0.14**	ND (<0.017)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)
ickel	13 or SB	100	**41.1**	8.7 B	**13.7**	5.4 B	6.9 B	5.9 B	1.6	2.0	ND (<1.4)	ND (<1.4)
elenium	2 or SB	10	ND (<0.99)	ND (<1.0)	ND (<1.1)	ND (<0.83)	ND (<0.91)	ND (<0.88)	ND (<4.5)	ND (<4.5)	ND (<4.5)	ND (<4.5)
ilver	SB	50	ND (<0.33)	ND (<0.33)	ND (<0.36)	ND (<0.28)	ND (<0.30)	ND (<0.29)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)
hallium	SB	NS	ND (<1.1)	ND (<1.1)	ND (<1.2)	ND (<0.93)	ND (<1.0)	ND (<0.98)	ND (<4.1)	ND (<4.1)	ND (<4.1)	ND (<4.1)
inc	20 or SB	NS	17.5	**259**	**170**	**38.5**	**61.9**	12.8	20.8	13.6	103	23.8

lotes:
IWR-94-4046, 1/24/94 (TAGM 4046)
Vater Quality Regulations Title 6, Chapter X, Parts 700-706 Fresh Groundwater - GA aquifers
pm = Parts Per Million = mg/Kg
pb = Parts Per Billion = ug/L
B = Site Background
letals analysis via USEPA Method SW-846 (soils) and 200 Series (water).
= The spiked sample recovery is not within control limits.
= The reported value is less than the Method Detection Limit but greater than or equal to the Instrument Detection limit.
= Duplicate analysis is not within control limits.
olded entry = Sample concentration which exceeds the NYSDEC recommended action value.
IS = No Criteria Listed in TAGM 4046 OR NYSDES Water Quality Standards.

TABLE 5
PCBs
Sampling and Analysis Summary
REXAM DSI
Brownville, New York

Sample ID	NYSDEC	EB-3	EB-4	EB-4	TPE-3	RC-1	RC-2	RC-3	RC-4	ES-1	Field Blank
Sample Depth (feet)	Recommended	16-16.5	1.5-2	16-16.5	1.5-2.0	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	
Lab Sample No.	Cleanup	237814	237815	237839	237820	237825	237826	237827	237828	237829	237831
Sampling Date	Objectives	10/25/00	10/25/00	10/25/00	10/25/00	10/26/00	10/26/00	10/26/00	10/26/00	10/26/00	10/26/00
Matrix		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	WATER
Units	ppm or mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/L
PCBs											
Aroclor-1016	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<300)
Aroclor-1221	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<300)
Aroclor-1232	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<300)
Aroclor-1242	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<200)
Aroclor-1248	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<300)
Aroclor-1254	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	0.420	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<200)
Aroclor-1260	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<400)
Aroclor-1262	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<200)
Aroclor-1268	1.0	ND (<0.087)	ND (<0.073)	ND (<0.073)	ND (<0.070)	ND (<0.067)	ND (<0.070)	ND (<0.072)	ND (<0.070)	ND (<0.110)	ND (<200)

Notes:

ppm = mg/Kg

NA = Not Applicable.

ND = Not Detected.

ND(<) = Less than the Reporting Limit.

PCB = Polychlorinated Biphenyls via USEPA Method 8082.

APPENDIX 1

Soil Boring Lithologic Logs
Purge Forms

ENVISION ENVIRONMENTAL, INC.
21 Priscilla Lane
Howell, NJ 07731

FIELD BOREHOLE LOG

BOREHOLE NO.: **EB-1**
TOTAL DEPTH: **26.9'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Rexam DSI**	DRILLING CO.:	**Atlantic Testing Laboratory**
SITE LOCATION:	**Brownville, NY**	DRILLER:	**Kevin**
JOB NO.:	**ENV-NY**	RIG TYPE:	**Geoprobe 5400**
LOGGED BY:	**S. Laney**	METHOD OF DRILLING:	**Direct Push**
PROJECT MANAGER:	**Mark Roman**	SAMPLING METHODS:	**Clear liner, 46"x1.75"**
DATES DRILLED:	**10-25-00**	HAMMER WT./DROP	**NA**

Notes: **Dumpster Area**

▽ Water level during drilling

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	COMMENTS
0			CONCRETE: 5"	0.5-1.0'	0	Headspace 0.5-1.0' = 0
-1		SP	ASH: 20", FILL; granular, sandy mix coal ash, coal, cinders, crushed rock, loose, moist, brn-black, crushed concrete at base		0	
-2					0	
-3					0	
4			ASH: 14", FILL; same, 50% cinders, loose, granular, crushed concrete, brn-black		0	
-5					0	
-6		GP	GRAVEL: 7", crushed rock, Lm, to 1.5", grey brn, sugary, micritic		0	
-7					0	
-8		SP	ASH: 13", loose, v.moist, grey black, 50% cinders, concrete chunks		0	
-9					0	
-10					0	
-11					0	
-12		SP	ASH: 14", coal ash, cinders, slag, coal chips, concrete chips, loose, moist		0	
-13					0	
-14						
-15						
-16		SP	FILL: Hamered blank to refusal to locate top of bedrock, dry.		0	
-17						
-18						
-19						
-20						
-21						
-22						
23						
-24						
-25						
-26						

ENVISION ENVIRONMENTAL, INC.
21 Priscilla Lane
Howell, NJ 07731

FIELD BOREHOLE LOG

BOREHOLE NO.: **EB-2**
TOTAL DEPTH: **4.1'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Rexam DSI**	DRILLING CO.:	**Atlantic Testing Laboratory**
SITE LOCATION:	**Brownville, NY**	DRILLER:	**Kevin**
JOB NO.:	**ENV-NY**	RIG TYPE:	**Spatula**
LOGGED BY:	**S. Laney**	METHOD OF DRILLING:	**Spatula**
PROJECT MANAGER:	**Mark Roman**	SAMPLING METHODS:	**Spatula**
DATES DRILLED:	**10-25-00**	HAMMER WT./DROP	**NA**

Notes: **In Stormwater Basin**

▽ Water level during drilling

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	COMMENTS
0			BASIN: Catchbasin 2' x 2'8" x 4'1" deep, concrete precast.			
-1						
-2						
-3						
-4		SM	SAND: 1", silty sand, brn, moist	4.0-4.1'	0	Headspace 4-4.1'=0

ENVISION ENVIRONMENTAL, INC.
21 Priscilla Lane
Howell, NJ 07731

FIELD BOREHOLE LOG

BOREHOLE NO.: **EB-3/PZ-1**

TOTAL DEPTH: **23.8'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Rexam DSI**	DRILLING CO.:	**Atlantic Testing Laboratory**
SITE LOCATION:	**Brownville, NY**	DRILLER:	**Kevin**
JOB NO.:	**ENV-NY**	RIG TYPE:	**Geoprobe 5400**
LOGGED BY:	**Steve Laney**	METHOD OF DRILLING:	**Direct Push**
PROJECT MANAGER:	**Mark Roman**	SAMPLING METHODS:	**Clear liner, 46"x1.75"**
DATES DRILLED:	**10-25-00**	HAMMER WT./DROP	**NA**

NOTES: **Historic Fill, in parking lot.**

▽ Water level during drilling

▼ Water level in completed well

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	BORING COMPLETION	PIEZOMETER DESCRIPTION
0		SM	SILT: 14"; gravelly, sandy, grey, moist, loose, poorly sorted		0 0		
-2			ASH: 18"; mixed coal chips (5%), cinders, slag, sandy, granular, loose, s&p, grey black, v.moist base		0 0		
-4		SM	SILT: 12"; brn, sandy, pea gravelly, moist		0		
-6			ASH: 13"; mixed coal (5%), cinders, slag, sandy, granular, loose, grey black, s&p, sl. wet at base		0 0 0		
-8			ASH: 14"; same except v.moist, concrete chunks to 2", grey black		0 0 0		Temporary Piezometer, 1" dia. PVC riser 0-8.5'
-10							
-12			ASH: 18"; same, slag chunks to 2"		0		Headspace 12-12.5' = 0
-14					0		Headspace 16-16.5' = 1.9
-16			ASH: 7"; same, wet, wood chunks, soft drilling	16-16.5'	0		
-18					0		1" dia. PVC screen 8.5-23.5', 0.01"
-20			ASH: 6"; lt. grey; wet, mixed with crushed Lm, cinders		0		Headspace 20-20.5' = 1.3
-22					0		Dry Well, let stand overnight.
-24			LIMESTONE: 3", crushed, wet, lt. grey black, silty, refusal.				

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FIELD BOREHOLE LOG

BOREHOLE NO.: **EB-4**
TOTAL DEPTH: **17.5'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Rexam DSI**	DRILLING CO.:	**Atlantic Testing Laboratory**
SITE LOCATION:	**Brownville, NY**	DRILLER:	**Kevin**
JOB NO.:	**ENV-NY**	RIG TYPE:	**Geoprobe 5400**
LOGGED BY:	**S. Laney**	METHOD OF DRILLING:	**Direct Push**
PROJECT MANAGER:	**Mark Roman**	SAMPLING METHODS:	**Clear liner, 46"x1.75"**
DATES DRILLED:	**10-25-00**	HAMMER WT./DROP	**NA**

Notes: **Previous TP-1 and Historic Fill Areas**

⊻ Water level during drilling

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	COMMENTS
0		SM	SILT: 14"; grey to black; mixed sand, brick chips, crushed rock; 2" coal and ash in middle; clayey & v.moist at base		0	
-1					0	
		SP	SAND: 18"; fill, sv.silty, grey blk, mixed crushed Lm, brick chips, cohesive, sl. clayey, v.moist 1.5-2.0'	1.5-2.0'	0.5	Headspace 1.5-2.0' = 3.0
-2					0	
-3					0	
-4					0	
-5					0	
		SM	SILT: 4"; f.sandy, brown, sl. wet, cohesive, clean			Headspace 5.5-6.0' = 0
-6					0	
-7					0	
-8		SP	SAND: 25"; fill, 50% crushed Lm & concrete, moist to v.moist zones, silty, brn, crumbly		0	
-9					0	
-10					0	
-11						
-12		SP	SAND: 22"; fill, mixed w/ crushed Lm, bn, crumbly, coarse gr., silty; layered rock & sand fill; moist to v.moist		0	
-13						
-14		SW	SAND: 12"; m-c gr., clean, well sorted, tr. crushed Lm, sl. wet, brn		0	Headspace 14-14.5' = 0
-15						
-16				16-16.5'	0	
-17		LM	LIMESTONE: 2"; angular, grey brn; refusal.			

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FIELD BOREHOLE LOG

BOREHOLE NO.: **EB-5/PZ-2**
TOTAL DEPTH: **16.0'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Rexam DSI**	DRILLING CO.:	**Atlantic Testing Laboratory**
SITE LOCATION:	**Brownville, NY**	DRILLER:	**Kevin**
JOB NO.:	**ENV-NY**	RIG TYPE:	**Geoprobe 5400**
LOGGED BY:	**S. Laney**	METHOD OF DRILLING:	**Direct Push**
PROJECT MANAGER:	**Mark Roman**	SAMPLING METHODS:	**Clear liner, 46"x1.75"**
DATES DRILLED:	**10-25-00**	HAMMER WT./DROP	**NA**

NOTES: **By Sani. Sewer Manhole**

▽ Water level during drilling
▼ Water level in completed well

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	BORING COMPLETION	PIEZOMETER DESCRIPTION
0			CONCRETE: concrete, 4"; crushed rock, 7", sandy		0		
		SW	ASH: 6", cinders, sandy, brick chips	1.2-1.7	0		Headspace 1.2-1.7' = 0
-2		ML	SAND: SAND, 7", m-c gr., brn, v. moist, well sorted		0		Sampled 1.2-1.7; VOC & BN
			SILT: FILL, 8", mixed silt, crushed concrete & rock, wet, sandy, grey		0		
-4		SP	SAND: SAND, 18", m-c gr., mixed crushed rock, brn, crumbly, moist		0		
					0		
-6		GW SM	GRAVEL: Crushed rock, 6", Lm, clean, loose		0		Headspace 6-6.5 = 0
			SILT: FILL, 8", sandy, mixed rock, silty, grey brn, cohesive		0		
▼ -8		SM	SILT: Silt, 16", grey brn, f. sandy, v.clayey, tight, well sorted, clean		0		
					0		
-10		OH	SILT: Silt, 18", grey, v.clayey, tight, sticky, f. sandy, tr. roots and organic zones, tr. brick		0		Temporary Piezometer 0-16', 1" .01" screen
-12		ML	SILT: Silt, 30", lt. grey, v.clayey, wet, f.sandy, sticky, tr. rock chips.		0		
14							
-16							

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FIELD BOREHOLE LOG

BOREHOLE NO.: **EB-6**
TOTAL DEPTH: **0.5'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Rexam DSI**	DRILLING CO.:	**Atlantic Testing Laboratory**
SITE LOCATION:	**Brownville, NY**	DRILLER:	**Kevin**
JOB NO.:	**ENV-NY**	RIG TYPE:	**Spatula**
LOGGED BY:	**S. Laney**	METHOD OF DRILLING:	**Spatula**
PROJECT MANAGER:	**Mark Roman**	SAMPLING METHODS:	**Spatula**
DATES DRILLED:	**10-25-00**	HAMMER WT./DROP	**NA**

Notes: **Warehouse Outfall**

▽ Water level during drilling

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	COMMENTS
0		SM	SILT: 6"; loamy, tr. glass shards, metal chips, sandy, brn, rootlets, dry, loose.			
			: Outfall from floor drain in warehouse to Philomel Creek. Outfall is 70' N of SE corner of warehouse and 30" below top of foundation slab. Steel pipe is 6" diameter and filled with concrete. Thin metal plate is located under pipe. Sediment above plate wassampled for VOC & BN.	0-0.5'	0	

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FIELD BOREHOLE LOG

BOREHOLE NO.: **TPE-1**
TOTAL DEPTH: **4.0'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Rexam DSI	DRILLING CO.:	Keller Drilling Co.
SITE LOCATION:	Brownville, NY	DRILLER:	Keller
JOB NO.:	ENV-NY	RIG TYPE:	Bobcat 328
LOGGED BY:	A. Uminski	METHOD OF DRILLING:	Excavation
PROJECT MANAGER:	Mark Roman	SAMPLING METHODS:	Spatula
DATES DRILLED:	10-25-00	HAMMER WT./DROP	NA

Notes: **Water Flume, east end**

▽ Water level during drilling

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	COMMENTS
0		SP	GRAVEL: 12"; fill, silty, concrete chunks to 12", red bricks, gravelly, sandy			
-1		SP	SAND: 36"; gravelly, light brown, coarse gr., rounded gravel to 1", moist, no odor; 30" steel stormwater culvert bedded in sand in the historic water flume. Sample collected from below culvert (3-3.5').		0	
-2					0	
-3				3-3.5'	0	Sampled for VOC & BN
-4						

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FIELD BOREHOLE LOG

BOREHOLE NO.: **TPE-2**
TOTAL DEPTH: **5.0'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Rexam DSI**	DRILLING CO.:	**Keller Drilling Co.**
SITE LOCATION:	**Brownville, NY**	DRILLER:	**Keller**
JOB NO.:	**ENV-NY**	RIG TYPE:	**Bobcat 328**
LOGGED BY:	**A. Uminski**	METHOD OF DRILLING:	**Excavation**
PROJECT MANAGER:	**Mark Roman**	SAMPLING METHODS:	**Spatula**
DATES DRILLED:	**10-25-00**	HAMMER WT./DROP	**NA**

Notes: **Water flume, west end**

▽ Water level during drilling

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	COMMENTS
0		SP	SAND: 24"; FILL, red bricks (50%), silty sand (50%); f-m gr., moist, no odor			
-1					0	
-2		SP	SAND: 36"; Fill, silty, cinders, bricks, concrete blocks, steel pipes; 30" steel stormwater culvert bedded in water flume; sampled silty sand beneath pipe; 4-4.5' below grade.		0	
-3					0	
-4				4-4.5'	0	Sampled for VOC & BN
-5						

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FIELD BOREHOLE LOG

BOREHOLE NO.: **TPE-3**
TOTAL DEPTH: **12.0'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Rexam DSI**	DRILLING CO.:	**Keller Drilling Co.**
SITE LOCATION:	**Brownville, NY**	DRILLER:	**Keller**
JOB NO.:	**ENV-NY**	RIG TYPE:	**Bobcat 328**
LOGGED BY:	**A. Uminski**	METHOD OF DRILLING:	**Excavation**
PROJECT MANAGER:	**Mark Roman**	SAMPLING METHODS:	**Spatula**
DATES DRILLED:	**10-25-00**	HAMMER WT./DROP	**NA**

Notes: **Historic Fill, NW corner Parking Lot**

▽ Water level during drilling

DEPTH	SOIL SYMBOLS	UNIFIED	SOIL DESCRIPTION	SAMP. No.	PID ppm	COMMENTS
0		SP	SAND: 6"; Fill, 3/4" angular Lm mixed with sand			
-1		SP	SAND: 12"; Fill, f-m gr., tan, moist		0	
-2		CL	CLAY: 18"; Fill, silty, v.moist, light grey	1.5-2.0'	0 0	Sampled for VOC, BN & PPM.
-3		SP	SAND: 24"; Fill, f-m gr., tan, no odor; mixed with concrete, rebar		0	
-4					0	
-5		SP	SAND: 24"; Fill, f-m gr., steel wire, sheet metal, moist, no odor		0	
-6					0	
-7		SP	SAND: 24"; Fill, f-m gr., tan, moist, no odor, concrete blocks		0	
-8					0	
-9		SP	SAND: 36"; Fill, f-m gr. large concrete slabs, moist, no odor.		0	
-10					0	
-11					0	

HYDRO-GEO CORPORATION
Monitoring Well Purge Data
& Physical Parameters

Client: REXAM-DSI BROWNVILLE, NY
Date: 10-25-00
Well ID: PZ-2
Personnel: STEVE LANCY / ALAN UMINSKI
Initial PID (ppm) = 0.0
Depth to Product from Top of Casing (ft) : NONE
Casing Diameter = 1 INCH
Product thickness : NONE
Total Depth of Well from Top of Casing (ft) 16'BG = 17.06
Depth to Water from Top of Casing (ft) 8.02'BG = 9.02
Water Column Thickness = 7.98
Purge Start Time : 1617
Conversion =
Purge End Time : 1647
Estimate of 3 well Volumes to purge (gal) = 1 GAL
Sample Collection Time : 1650
Sampling Method : BAILER

Prepurge / Water level	Time ⊙	Gallons	Temp. °F or C	Elec. Cond mS or uS	pH	DO (ppm)	Purge rate	Comments	Eh - ORP
		0					0		
During Purge									
End of Purge		3GAL	14.2	1.35	7.09	2.53	0.1GPM	SAL = 0.1 TDS = 0.9 g/L	-117 mV
Recovery Data									

CONVERSIONS
2"= 0.16 gal/ft
4"= 0.65 gal/ft
6"= 1.46 gal/ft

HYDRO-GEO CORPORATION
Monitoring Well Purge Data
& Physio-Chemical Parameters

Client: Rexam - DSI
Well ID: R1 MW-1 Installed 8-9-93
Initial PID (ppm) = 0
Casing Diameter = 6"
Total Depth of Well from Top of Casing (ft) (stickup) = 75.2
Depth to Water from Top of Casing (ft) = 42.0
Water Column Thickness = 33.2'
Conversion = x 3 x 1.46
Estimate of 3 well Volumes to purge (gal) = 145 GAL
Q = 3-5 gpm

Date: 10-25-00
Personnel: AHU
Depth to Product from Top of Casing (ft) :
Product thickness : NONE
Purge Start Time : 1540
Purge End Time : 1620
Sample Collection Time : 1625
Sampling Method : BAILER

Prepurge / During Purge	Time	Gallons	Purge rate gal/min	Temp. °F or °C	Elec Cond mS or uS	pH Stand. Units	Diss. Oxy. (ppm)	Salinity	Comments: TDS	TURB	ORP mv
Water level 42.0	1500	0	0								
	1542	10		10.36	1.06	6.86	4.2	0.0	0.8	545	180
	1550	50		10.40	1.17	6.90	3.55	0.1	.51	20.0	173
	1610			10.42	0.65	7.32	0.62	0.0	.44	18.1	4
	1620	150		10.23	0.62	7.38	0.00	0.0	0.40	65	-53

End of Purge: 66.3'

Recovery Data

CONVERSIONS
2"= 0.16 gal/ft
4"= 0.65 gal/ft
6"= 1.46 gal/ft