~~payment.hw.~~
workplan.hw.420007.2006-09-14.D004434-02_MACTEC.pdf

PROJECT NAME: Immediate Investigation Work Assignments		WA #: D004434-1 and -2	
TO: Dale A. Desnoyers		$9988	
The attached Work Plan is submitted for your approval. It has been checked and approved by:			
	Name	***Initials***	***Date***
Project Manager (scope, level-of-effort, subcontracting).	N/A	———	———
Contract Manager (conformance with contract and protocols).	Lisa Lewis	LML	8/17/06
Cost Reviewer (cost reasonableness).	Lisa Lewis	LML	8/17/06
M/WBE Unit	Brenda L. Moulhem	BM	9/7/06
Acting Chief, Contracts & Payments Section	Swapan Gupta	SG	9/8/06
T. Wolosen, Fiscal Management Section	Tim Wolosen	T W	9/13/06
Bureau Director	Donna M. Weigel	DW	9/14/06
PLEASE CALL THERESA SPAIN AT 2-9764 AFTER SIGN-OFF			

RECEIVED
SEP 15 2006
DIVISION OF
ENVIRONMENTAL REMEDIATION

L. Lewis

New York State Department of Environmental Conservation
Division of Environmental Remediation, 12th Floor
625 Broadway, Albany, New York 12233-7011
Phone: (518) 402-9706 • **FAX:** (518) 402-9020
Website: www.dec.state.ny.us

Denise M. Sheehan
Commissioner

SEP 10 2003

Mr. William Weber, P.E.
Program Manager
MACTEC Engineering and Consulting
511 Congress Street, P.O. Box 7050
Portland, Maine 04112-7050

RE: Standby Consultant Contract
Work Plan Approval
Work Assignment #D004434, WA Nos. 1 and 2
Immediate Investigation Work Assignments (IIWAs)

Dear Mr. Weber:

Enclosed are copies of the approved work plan budgets for two IIWAs. These work plans are designed to provide the Department with consultant services for investigation and design on an immediate response basis. Specific sites will be determined at a later time.

The budgets for the two work assignments are as follows:

Approved work plan budget WA #D004434-1	$ 50,000
Approved work plan budget WA #D004434-2	$ 50,000
Total of work assignment budgets	**$100,000**

This letter is not a Notice to Proceed. The notice to proceed will be issued when a site in need of investigation is identified by the Department. Once a notice to proceed is issued, you are authorized to expend only approved budget funds. Payments cannot be processed until the encumbrance of monies for each WA is approved by the Office of the State Comptroller (OSC). This process takes approximately four weeks.

If you have any questions or comments, please contact Lisa Lewis, Contract Manager, at (518) 402-9601.

Sincerely,

Dale A. Desnoyers
Director
Division of Environmental Remediation

Enclosures

ec: w/enc
L. Lewis
S. Gupta
(DER Section Chiefs)

ec: w/o enc
D. Desnoyers
P.D. Smith
C. Vasudevan
E. Belmore
R. Schick
A. English
B. Moulhem
D. Finlayson
T. Wolosen

WORK PLAN
STATE SUPERFUND STANDBY CONTRACT
IMMEDIATE INVESTIGATION WORK ASSIGNMENTS (IIWA)

Site Names and Numbers: Open project for subsequent assignment
Open project for subsequent assignment

Work Assignment Numbers: D004434-1
D004434-2

Work Element: Site Characterization

Contract Manager: Lisa Lewis

Synopsis: This document establishes a series of two site-specific work assignment (WA) projects to be addressed under the State Superfund Standby Contract with MACTEC and provides a site-specific WA budget for each project. Each WA established by this document will be known as an Immediate Investigation Work Assignment (IIWA) and will be used to complete Site Characterization (SC) work. Each WA established by this document will have a pre-approved, maximum work budget of $50,000 - for a maximum total of $100,000. A site-specific scope of work will be prepared and issued by the NYSDEC Project Manager as an attachment to the Notice to Proceed letter issued for each WA. The Notice to Proceed letter for each WA project will be issued under the appropriate Bureau Director's signature within the Division of Environmental Remediation (DER) or under the signature of the appropriate Regional Engineer in any of the Department's empowered Regional Offices.

Scope of Work: IIWA projects are designed to give the Department the ability to acquire additional information relative to a particular inactive hazardous waste disposal site or petroleum spill contaminated site after regular investigations have been completed, or to quickly initiate the early stages of the SC program at previously listed or suspected inactive hazardous waste disposal sites. To facilitate this program, the Standby Contractor will establish all of the management procedures necessary to provide the required services to the Department on a very short notice. The scope of work for the given IIWA projects will generally encompass activities contained in Work Element I of Schedule 1 (SC) and other work elements as appropriate in the Standby Consultant Engineering Contract. The Standby Contractor will be expected to mobilize manpower and equipment for each IIWA project within 7 days immediately following the date of the Notice to Proceed letter issued by the Department, or as directed by the Division of Environmental Remediation Project Manager.

The scope of work for each IIWA is intended to serve site investigation circumstances that other initiatives within the DER, such as Immediate Response Work Assignments (IRWAs), are not able to adequately fulfill. Each IIWA will have a cost ceiling of $50,000 and each IIWA will be used under circumstances where the scope of work is well defined and limited to providing information which will directly factor into a decision relative to the project site's classification. These WA projects are to be executed rapidly (site work is to begin within 7 days immediately following the date of the Notice to Proceed letter) and lend themselves to close technical involvement by DER personnel. In addition, these WA projects may involve components that support a large investigation being managed by the DER.

Work Plan Development: The Department has generated this work plan document to address two site-specific WAs that each have a pre-approved, maximum work plan budget of $50,000 - for a maximum total of $100,000. In general, the scope of work for any given IIWA project established by this work plan document may encompass the activities contained in Schedule 1, Work Element I of the Standby Contract with MACTEC and/or may involve some activities that require the services of a subcontractor, such as:

- Geophysical Services
- Drilling Services
- Subsurface Exploratory Services
- Analytical Laboratory Services

The following items are not included in this work plan document and are to be provided by MACTEC once the Notice to Proceed has been issued. These items are:

1) A Staffing Plan that identifies the management and technical staff to be assigned to a particular project; identifies the management and technical staff responsibilities during their work on the assigned project; and provides a current resume for all involved management and technical staff (if not previously submitted).

2) A Minority Business Enterprise/Women's Business Enterprise (MBE/WBE) Utilization Plan that identifies those subcontracts that will most likely result in some element of MBE/WBE participation.

Work Plan Development Cost Authorization: This work plan document represents the final work plan as generated by the Department; therefore, there are no Standby Consultant associated work plan development costs.

Proposed Budget: The budgets for the proposed sites are as follows:

Work Assignment No.	**Lump Sum Budget**
Work Assignment D004434-1	$ 50,000
Work Assignment D004434-2	$ 50,000
TOTAL	**$100,000**

The site-specific work assignment budgets of $50,000 are estimated by the following breakdown:

Direct and Indirect Salary Costs - 52%
(based on 300 hours of effort for Level IV personnel (as an average) at $32.82 per hour)

Direct Non-Salary Costs - 5%

Subcontract Costs - 40%

Fixed Fee - 3%

Detailed Schedules for each work assignment are attached as follows:

2.11(a)
2.11(g)

Schedule 2.11(a)

Summary of Work Assignment Price

Work Assignment Number D004434-2

1.	Direct Salary Costs (Schedules 2.10(a) and 2.11(b)) (based on 300 hours of effort for Level IV personnel (as an average) at $32.82 per hour)	$ 9,846
2.	Indirect Costs (Schedule 2.10(g))	$16,403
3.	Direct Non-Salary Costs (Schedules 2.10(d)(e)(f) and 2.11 (c)(d))	$ 2,439

Subcontract Costs

Cost-Plus-Fixed-Fee Subcontracts (Schedule 2.10(e) and 2.11(e))

Name of Subcontractor	Services to Be Performed	Subcontract Price
A.		
B.		
C.		

4.	Total Cost-Plus-Fixed-Fee Subcontracts	$10,000

Unit Price Subcontracts (Schedule 2.10(f) and 2.11(f))

Name of Subcontractor	Services to Be Performed	Subcontract Price
A.		
B.		
C.		

5.	Total Unit Price Subcontracts	$10,000
6.	Total Subcontract costs (lines 4 + 5)	$20,000
7.	Fixed Fee (Schedule 2.10(h))	$ 1,312
8.	Total Work Assignment Price (Lines 1 + 2 + 3 + 6 + 7)	**$50,000**

Schedule 2.11(g)

Monthly Cost Control Report
Summary of Fiscal Information

Engineer: MACTEC
Contract No.: D004434
Project Name: IIWA
WA No.: D004434-2
Task No./Name: D004434-2 SUMMARY
% Complete:

Date Prepared:
Billing Period:
CAP No.:

Expenditure Category	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*
	Costs Claimed This Period	*Paid to Date*	*Total Disallowed to Date*	*Total Costs Incurred to Date (A+B+C)*	*Estimated Costs to Completion*	*Estimated Total Work Assignment Price (A+B+E)*	*Approved Budget*	*Estimated Under/Over (G-F)*
1. Direct Salary Costs							$9,846	
2. Indirect Costs (166.6%)							$16,403	
3. Subtotal Direct Salary Costs and Indirect Costs							$26,249	
4. Travel								
5. Other Non-Salary Costs							$2,439	
6. Subtotal Direct Non-Salary Costs							$2,439	
7. Subcontractors							$20,000	
8. Total WA Cost							$48,688	
9. Fixed Fee (5%)							$1,312	
10. Total WA Price							$50,000	

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway, Albany, New York 12233-7017
Phone: (518) 402-9814 • **FAX:** (518) 402-9819
Website: www.dec.state.ny.us

Denise M. Sheehan
Commissioner

JAN - 5 2007

Mr. William Weber, P. E.
Principal Engineer
MACTEC Engineering and Consulting, Inc.
511 Congress Street
Portland, Maine 04101

RE: State Superfund Standby Contract
Notice to Proceed
Immediate Investigation Work Assignment
Work Assignment No. D004434-02
Becker Electronics Manufacturing, Site No. 4-20-007

Dear Mr. Weber:

This is to acknowledge receipt of the Conflict of Interest certification dated January 2, 2007 for the Becker Electronics Manufacturing site. The subject budget and scope as referenced in work assignment D004434-2 is for the installation and sampling of temporary groundwater and soil vapor probes in support of soil vapor intrusion evaluation services at the above-referenced site. The Department hereby authorizes MACTEC to proceed with the investigation.

The following summarizes the budget for this work assignment:

Work Plan Development Cost Authorization (Task 1):	$ 2,500
Estimated Work Assignment Budget (Tasks 2 & 3):	$47,500
Total Work Assignment Budget:	$50,000

You are authorized to expend only approved budget funds. Costs submitted for reimbursement must be broken down by site and task.

Your firm is hereby given Notice to Proceed with the work described in this work assignment. All work described shall be completed according to the schedule in the approved work plan.

If you have any questions or comments, please contact Mr. Ben Rung, Project Manager, at (518) 402-9813.

Sincerely,

William E. Wertz, Ph.D.
Chief, Remedial Section B
Remedial Bureau E
Division of Environmental Remediation

ec: C. Staples, MACTEC
E. Sandin, MACTEC

From: Lisa Lewis
To: wjweber@mactec.com
Date: 12/29/2006 12:56:06 PM
Subject: COI checks for anticipated immediate investigation work assignments

Hi Bill-

Attached are two documents which need to be completed for Conflict of Interest checks.
It is anticipated that, if Mactec has no conflicts, Work Assignments 1 and 2 under the I/D contract D004434 will be activated.

WA #1 will be an IIWA for Roxy Cleaners, Site #4-42-024. Eric Hausamann will be the Project Manager, and he will be responsible for activating the WA.

WA #2 will be an IIWA for Becker Electronics Manufacturing, Site #4-20-007. Benjamin Rung will be the Project Manager for that one, and he will be responsible for activating it.

Because of the immediate nature of these work assignments, we ask that you conduct your conflict of interest checks as quickly as possible. Please PDF the signed forms back to me and then send the originals in the mail. This way, the PMs can contact you for WA activation (aka "Notice to Proceed") with little delay. (A COI check was completed in October 2005 for Becker Electronics in regard to WA D003826-23, but because of the revised format of the COI, we ask that you re-certify for that site.)

Please let me know if you have any questions. And Happy New Year!

Thanks,
Lisa

Lisa M. Lewis
Contract Manager
NYS Dept. of Environmental Conservation
Division of Environmental Remediation
Bureau of Program Management
Contracts & Payments Section
625 Broadway, 12th Floor
Albany, NY 12233-7012

Phone: (518) 402-9601
Fax: (518) 402-9722
Email: lmlewis@gw.dec.state.ny.us

CC: Hausamann, Eric; Peterson, John; Rung, Benjamin

New York State
Department of Environmental Conservation
Division of Environmental Remediation

Standby Engineering Contract
Conflict of Interest Certification

To the best of the Department of Environmental Conservation's knowledge, the potential responsible parties listed below are the known potential responsible parties as of the issuance date of the enclosed work assignment letter.

– ***Fred Becker***

– ***Becker Electronics Manufacturing***

The undersigned authorized representative, for the contractor indicated below, hereby certifies for the contract number and work assignment number identified below that to the best of his/her knowledge the contractor has no organizational or personal conflict of interest with the potential responsible parties listed above, as defined in Appendix B, Section III, Conflict of Interest of the executed standby engineering contract indicated below.

Certified By:

I acknowledge receipt and acceptance of this WA as the contractor's authorized representative. I also acknowledge that the contractor has no conflict of interest.

Wing Wilson 1/2/07

Signature of Contractor's Authorized Representative Date

Mactec Engineering & Consulting
Contractor Name

D004434-2
Contract/WA No.

4-20-007
Site/Spill/PIN No.

Becker Electronics Manufacturing
Site/Spill Name

New York State
Department of Environmental Conservation
Division of Environmental Remediation

Standby Engineering Contract
Conflict of Interest Certification

To the best of the Department of Environmental Conservation's knowledge, the potential responsible parties listed below are the known potential responsible parties as of the issuance date of the enclosed work assignment letter.

– ***Fred Becker***

– ***Becker Electronics Manufacturing***

The undersigned authorized representative, for the contractor indicated below, hereby certifies for the contract number and work assignment number identified below that to the best of his/her knowledge the contractor has no organizational or personal conflict of interest with the potential responsible parties listed above, as defined in Appendix B, Section III, Conflict of Interest of the executed standby engineering contract indicated below.

Certified By:

I acknowledge receipt and acceptance of this WA as the contractor's authorized representative. I also acknowledge that the contractor has no conflict of interest.

Signature of Contractor's Authorized Representative — Date: 1/2/07

Mactec Engineering & Consulting
Contractor Name

D004434-2
Contract/WA No.

4-20-007
Site/Spill/PIN No.

Becker Electronics Manufacturing
Site/Spill Name

From: Benjamin Rung
To: Lisa Lewis
Date: 12/20/2006 1:56:11 PM
Subject: Fwd: CA memo for IIWA Standby Contract, Site No. 4-20-007, Becker Electronics Manufacturing

Lisa,
The conceptual approval memo for Becker Electronics was sent to Sal last Friday 12/15. Mike Cruden was CC'd but I don't see Swapan's name on the list. I'm awaiting Sal's response.
In the meantime, here is the PRP info.

Becker Electronics Mfg.
420007
Greene County
Town of Durham
PRP:
Fred Becker

Roxy Cleaners
442024
Rensselear County
Town of North Greenbush
PRP:
Roxy United Cleaners, Inc.
Mardigian Properties, Inc.

Eric is putting together his conceptual memo for Roxy Cleaners and hopes to submit it to Sal by the end of the week.
Thanks,
Ben

Benjamin Rung
New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau E
625 Broadway, 12th Floor
Albany, New York 12233-7013
Ph: 518-402-9813
Fax: 518-402-9819
email: bwrung@gw.dec.state.ny.us

From: Swapan Gupta
To: Lisa Lewis
Date: 12/26/2006 1:42:32 PM
Subject: Fwd: Re: CA memo for IIWA Standby Contract, Site No. 4-20-007, Becker Electronics Manufacturing

FYI. Please let the PM know which WA# you will assign for him to send out the NTP.

>>> Michael Cruden 12/26/06 7:37 AM >>>
fyi

>>> Sal Ervolina 12/22/06 5:40 PM >>>
I approve the conceptual approval memo for an IIWA at the Becker Electronics Manufacturing site. Please make the correction noted by Mike.

>>> Michael Cruden 12/15/06 11:41 AM >>>
Note that the **Program Element:** in the Conceptual Approval Memo should read Immediate Investigation Work Assignment (IIWA) only (i.e., "Remedial Investigation" is not applicable.) The scope of work supports this. If a RI is necessary in the future, a separate conceptual would need to be requested from Sal for a traditional RI work assignment.

>>> Marcia Jenks 12/15/06 11:18 AM >>>
Sal

Attached for your review and approval is the Conceptual Approval Memo for Immediate Investigation Work Assignment for Engineering Standby Contractor at Becker Electronics Manufacturing, Site No. 4-20-007, located in the Village of East Durham, Greene County, New York.

The estimated work assignment budget is $50,000.

Thank you,
Marcia

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway, Albany, New York 12233-7017
Phone: (518) 402-9814 • **FAX:** (518) 402-9819
Website: www.dec.state.ny.us

Denise M. Sheehan
Commissioner

MEMORANDUM

TO: Salvatore Ervolina, Assistant Division Director, DER

FROM: William E. Wertz, Remedial Bureau E
THRU: Robert C. Knizek, Chief, Remedial Bureau E

SUBJECT: Conceptual Approval Memo for Immediate Investigation Work Assignment For (1) Engineering Standby Contractor at Becker Electronics Manufacturing

DATE: DEC 15 2006

Site No., Name, Location: 4-20-007, Becker Electronics Manufacturing, Located in the Village of East Durham, Greene County, New York

Site Information: See Attachment A for site information.

Conflict of Interest: Fred Becker

Program Element: Remedial Investigation - Immediate Investigation Work Assignment (IIWA)

Project Duration: January 2007 - December 2007

Contractor Preference: MACTEC

Estimated WA Budget:

Work Plan Development	$ 2,500
Soil Vapor Sampling	$18,400
Groundwater Sampling	$10,100
Structure Sampling	$19,000
Work Assignment Amount	$50,000

Funding Source: State Superfund

Brief Description of Scope of Work:

The Becker Electronics site is located in a rural, residential area in the hamlet of East Durham, within the Town of Durham, Greene County, New York. The site is currently listed as a Class 2 Site. The scope of work for this IIWA project will encompass activities contained in the SVI Work Assignment, provided as Attachment A. To facilitate this program, the standby contractor will establish all of the management procedures necessary to provide the required services to the Department with very short notice and will be expected to mobilize manpower and equipment within 14 days immediately following the date of the Notice to Proceed letter issued by the Department.

The work assignment scope of work and cost includes sampling of eight (8) co-located soil vapor and groundwater sampling locations. All drilling and laboratory work will be subcontracted by the contractor who will also provide field staff to collect the groundwater and soil vapor samples and transport the samples to the laboratory. The number of soil vapor and groundwater samples are estimated at 16 and 8, respectively.

The scope of work also includes a provision for amendment if sampling and mitigation of structures in the vicinity of the former Becker Electronics building is determined to be necessary. At the direction of the Department, structure sampling and mitigation will be executed.

Attachment

ec: w\Att. D. Weigel
D. Finlayson
T. Wolosen
M. Cruden
R. Knizek
W. Wertz
B. Rung
E. Hausamann
eDocs

L:\memo.hw420007.2006-12-14_CA_memo.wpd

ATTACHMENT A

Immediate Investigation Work Assignment (IIWA)
Type of Contract: Cost Plus Fixed Fee
Project: Soil Vapor Intrusion Site Characterization at Becker Electronics Manufacturing
Greene County, Town of Durham, New York
NYSDEC Project Manager: Benjamin Rung
Phone: (518) 402-9813

SITE LOCATION AND DESCRIPTION:

General/Location

The Becker Electronics site is located in a rural, residential area in the hamlet of East Durham, within the Town of Durham, Greene County, New York. East Durham is located approximately 40 miles southwest of Albany, and 12 miles west of Catskill, New York. The site is situated on the west side of New York State Route 145. Access to the site is via Route 145. Several access roads and or vehicle trails are located within the site boundaries. East Durham is a rural vacation community. Private residences and small business establishments are located north and east of the site. A resort, which is currently inactive, lies adjacent to the site on the south. Immediately north of the site, on the Irish Culture and Sports Center land, exists athletic fields used for recreational purposes. West of the site is undeveloped land consisting of grass fields and wooded areas. There are no community public water supply systems in the vicinity of the Becker Electronics site. Several residences, vacation resorts and other businesses in the vicinity of the site obtain their water from individually-owned private water supply wells. Two surface water bodies Thorp and Catskill Creek are located downhill of the site. Groundwater that is contaminated by the site discharges into the streams in the area of their confluence which is located approximately 800 feet northeast of the site.

Operational/Disposal History

The Becker Electronics facility, which operated from approximately 1976 to 1988, was used to manufacture high fidelity speakers and speaker components. As part of the plant operations, 1,1,1-trichloroethane (1,1,1-TCA) and other solvents were used to remove oils from speaker magnet plates and other metal parts, and to degrease mechanical machinery. Discharges of solvent-contaminated wastewater and on-site disposal through accidental spills or poor waste management led to the contamination of soil and groundwater.

Remedial History

Significant groundwater contamination by chlorinated solvents, primarily 1,1,1-Trichloroethane, has been verified. The solvents have contaminated several nearby private drinking water wells. New source areas have been identified on this property as the result of additional investigation and a Remedial Action Plan to address the site was developed and has been implemented. Becker Electronics installed carbon filters on all drinking water wells with known contamination in order to reduce contaminant exposure. In 1982, Becker Electronics closed the facility and filed for bankruptcy. The NYSDEC completed a Remedial Investigation/Feasibility Study (RI/FS) for this site in March of 1996. The RI/FS uncovered a significant new source area of contamination at the site. Additional private drinking water supply wells were also found to be contaminated and have also received carbon filter systems. A Record of Decision (ROD) was signed in March of 1996, and a Remedial Action Plan was developed to address the environmental issues raised at this site. All of the carbon filter systems installed in conjunction with this site are currently maintained by the NYSDEC. The design of the final remedy at this site was completed in 1999. Remedial construction began in the fall of 2000 in accordance with the ROD. The following construction activities took place. The debris pile was capped, the chemical storage building was demolished, contaminated soil was removed from the property,

and an air stripper was constructed. The work has been completed. Groundwater pumping and treatment is continuing, and the site is now in O&M.

PROPOSED SITE ACTIVITIES INCLUDED WITHIN THIS WORK ASSIGNMENT:

The Contractor will be responsible for performing a soil vapor intrusion investigation at the site and will be required to conduct the following activities at the site:

TASK 1 - Work Plan Development

A meeting shall be held at the site included in this Work Assignment in order to discuss the requirements of the Work Plan. The Contractor shall visit the site prior to field mobilization in order to verify the proposed sampling locations with the NYSDEC. Based on the meeting, the Contractor will compile a Work Plan which shall detail the following Tasks. The Contractor shall be responsible for hiring a driller as well as locating underground utilities prior to any sub-surface investigative work.

TASK 2 - Soil Vapor Investigation

Soil vapor investigations will be performed in accordance with the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (Final, October 2006).

Temporary Soil Vapor Probe Installation

Temporary soil vapor probes will be installed at approximately eight (8) locations selected by the NYSDEC, in consultation with the NYSDOH, to determine whether vapor phase contaminants are present within the investigation area.

Two (2) temporary soil vapor probes will be installed at each location using direct-push technology to drive stainless steel rods equipped with detachable stainless steel drive points to the desired depth. The paired soil vapor probes will be installed at different depths, the shallow one at a depth equivalent to that of a typical building foundation (approximately 8 ft bgs) and the deeper one approximately 1-2 ft. above the water table. If the water table is determined to be less than 12 ft bgs, then one soil vapor probe at 8 ft bgs may be sufficient. If the water table is less than 5 ft bgs, a decision whether or not to install a soil vapor probe at that location will be made by the NYSDEC based on field conditions.

Once the desired depth is reached, the drive rod will be retracted revealing a six (6) inch sampling screen attached to dedicated Teflon tubing of laboratory or food grade which will be used to collect the soil vapor samples. The borehole will then be backfilled with sand to a minimum of six (6) inches above the screened interval. Bentonite chips or pellets will then be placed from approximately six (6) inches above the screen to the ground surface, and immediately hydrated. Sufficient time should then be provided for the bentonite to set-up (24 hours minimum).

If groundwater is anticipated to be encountered less than 16 ft bgs, a GeoProbe® 5400 or equivalent direct-push technology should be sufficient to obtain the desired sampling depths. If this rig is deemed insufficient, the sampling will be reevaluated using either a larger direct push drill rig or a hollow stem auger (HSA).

Temporary Soil Vapor Probe Sampling

Prior to collection of soil vapor samples, the temporary soil vapor probes will be purged in accordance with the NYSDOH guidance for evaluating soil vapor intrusion. Three to Five implant volumes (i.e., volume of the sample probe and tube) will be purged at a flow rate which does not exceed 0.2 liters per minute. Tracer gas will be used to evaluate short-circuiting of the sampling zone with ambient air. Unless otherwise directed by the NYSDEC, all soil vapor sampling locations at each site will be evaluated with tracer gas in accordance with the NYSDOH guidance.

Samples will be collected using laboratory-certified clean SUMMA canisters with two-hour regulators and dedicated Teflon lined tubing of laboratory or food grade quality. The flow rate during sampling shall not exceed 0.2 liters per minute to minimize outdoor air infiltration during sampling. In the event of freezing weather, a portable heating device (e.g., electric socks or hand warmers) will be used to prevent the regulator and filter assembly from freezing during sample collection.

The soil vapor samples will be analyzed by an ELAP certified lab for volatiles using EPA Method TO-15. A minimum reporting limit of 1 microgram per cubic meter ($\mu g/m^3$) must be achieved for all analytes and all results must be reported in $\mu g/m^3$. The laboratory should report preliminary results within 10 days of receipt of the samples. Additional analytical parameters may be specified depending on site-specific contaminants of concern.

Upon completion of the sampling, the sample tubing will be removed and the temporary soil vapor probe location backfilled with bentonite. Each location will then be marked with a stake/flag labeled with the proper sample identification and illustrated on the site map so that it can be located at a later date. Borings performed in paved or concrete areas will be backfilled and refinished at the ground surface with concrete or cold patch.

Field Documentation Procedures

Field notebooks will be used during all on-site work. A dedicated field notebook will be maintained by the field technician overseeing the site activities. In addition to the notebook, any and all original sampling forms, purge forms and notebooks used during the field activities, shall be submitted to the NYSDEC as part of the final report. Field and sampling procedures, including installation of the soil vapor probe points and groundwater sampling, should be photo-documented.

Sample Identification

The following nomenclature shall be used for the soil vapor sample identification:

***[SITE ID]*[1]-V-1S through 8S (for shallow locations) or**
***[SITE ID]*-V-1D through 8D (for deep locations)**

TASK 2a - Soil Vapor Sampling Data Validation/Usability Report

All samples collected must be validated by a party that is independent of the laboratory which performed the analyses and the Contractor which performed the fieldwork. A usability analysis will be conducted by a qualified data validator and a Data Validation/Usability Report will be submitted to the NYSDEC.

[1] SITE ID = NYSDEC site identification number (e.g. 420007)

TASK 2b - Soil Vapor Sampling Reporting

Reporting will include information pertaining to the installation, collection and sampling of the property. All appropriate text, data and figures will be compiled and provided to the Department. No conclusions shall be contained within the reports. In addition, all field and laboratory data shall be submitted electronically in a standardized format consistent with EPA Region 2's Multimedia Electronic Data Deliverable (MEDD) format.

TASK 3 - Groundwater Sample Collection

Groundwater samples will be collected from approximately eight (8) locations at the site to determine whether VOC groundwater contamination exists. Samples will be collected at existing groundwater wells or as grab samples from temporary locations selected by the NYSDEC, in consultation with the NYSDOH. The Contractor shall participate in visits to the site included in this Work Assignment in order to verify the proposed sampling locations with the NYSDEC prior to field mobilization. The Contractor's Driller will install all direct-push groundwater wells, as needed.

Groundwater Sampling at Existing Monitoring Wells

The depth to water in existing monitoring wells will be gauged to provide information on hydraulic gradient and groundwater flow in the vicinity of the site and to provide information regarding the presence/absence of NAPL. Water levels will be measured using an interface probe and be properly documented.

Groundwater samples will be collected from existing monitoring wells after three (3) well volumes have been purged using either a NYSDEC approved pump, check valve, or bailer after the turbidity has been reduced to 50 NTUs or less (in low yield wells, the sample may be collected after well recharges if purged dry). The groundwater samples will be collected either by a Teflon Waterra check valve and dedicated tubing or a dedicated bailer (or an alternative method approved by the Department).

Groundwater samples will be analyzed by an ELAP certified lab for volatiles by EPA Method 8260. Unless otherwise directed, purge water shall be discharged to the ground surface away from the well. If NAPL or an odor is observed, or if directed by NYSDEC, the purge water must be staged in an appropriate container and disposed of accordingly. At sites with existing water management protocols, those protocols should be followed.

Installing and Sampling Direct-Push Groundwater Wells

At some locations, groundwater samples will be collected by direct-push sampling techniques. The sampling device shall consist of a stainless steel screen with a protective sheath at the base of the drive rods and will be advanced to the desired sampling depth (approximately one foot below the groundwater table) by the Driller. The groundwater sample will be collected via dedicated Teflon lined tubing of laboratory or food grade quality. Groundwater samples will be analyzed by an ELAP certified lab for volatiles by EPA Method 8260.

Upon completion of the sampling, the sample tubing will be removed and the temporary monitoring well location will be backfilled with bentonite and marked with a stake/flag which shall be labeled with the proper sample identification and shall be illustrated on the site map so that it can be located at a later date. Borings performed in paved or concrete areas will be backfilled and refinished at the ground surface with concrete or cold patch.

Decontamination Procedures

All non-dedicated equipment and tools used to collect samples for chemical analysis will be decontaminated prior to and between each sample interval using an Alconox® wash and potable water rinse followed by cleaning of the equipment with steam prior to reuse. Decontamination fluids will be discharged to the ground surface unless a visible sheen or odor is detected either on the equipment or the fluids, at which point the decontamination water will be staged in an appropriate container and disposed of accordingly. At sites with existing water management protocols, those protocols should be followed.

Field Documentation Procedures

Field notebooks will be used during all on-site work. A dedicated field notebook will be maintained by the field technician overseeing the site activities. In addition to the notebook, any and all original sampling forms, purge forms and notebooks used during the field activities, shall be submitted to the NYSDEC as part of the final report. Field and sampling procedures, including installation of the soil vapor probe points, groundwater sampling, etc., should be photo-documented.

Sample Identification

The following nomenclature shall be used for the groundwater sample identification:

***[SITE ID]*-GW-1 through 8 (for temporary points)**
***[SITE ID]*-GW-*[MW ID]* (for existing monitoring wells)**

TASK 3a - Groundwater Sampling Data Validation/Usability Report

All samples collected must be validated by a party that is independent of the laboratory which performed the analyses. A usability analysis will be conducted by a qualified data validator and a Data Validation/Usability Report will be submitted to the NYSDEC.

TASK 3b - Groundwater Sampling Reporting

Reporting will include information pertaining to the installation, collection and sampling of the property. All appropriate text, data and figures will be compiled and provided to the Department. No conclusions shall be contained within the reports. All field and laboratory data shall be submitted electronically in a standardized format consistent with EPA Region 2's MEDD format.

TASK 4 - Structure Sampling

This work assignment includes budgeting for structure sampling of approximately four (4) structures in the vicinity of the former Becker Electronics building. At the direction of the Department, indoor air, outdoor ambient air and subslab soil vapor sampling will be executed. The protocol for this effort shall follow the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Final, October 2006. (SVI Guidance). The turnaround time for all samples results will be two (2) weeks.

Additional sampling phases may be required if the State finds it necessary to sample additional structures or to resample the same structures at a later time. Additional structure sampling is included under Task 4.

Three types of samples will be collected at each structure:

1. **indoor air;**
2. **subslab soil vapor; and**
3. **outdoor air**

As shown in the following table, a minimum of four (4) samples will be associated with each building:

Type of Sample	Number of Samples Per Building	Description
Subslab	1	One centrally-located with potentially one located approximately 3 feet from the "source side" perimeter wall
Indoor air	2	One basement indoor ambient air (centrally-located at a breathing zone height) and one first floor indoor ambient air
Outdoor air	1	One outdoor ambient air, located upwind of the structure at a breathing zone height

Prior to the structure air sampling, an inspection of general site conditions will be performed at each structure. The pre-sampling inspection will determine the locations for the indoor air and outdoor air sampling. The inspection will include the completion of a chemical product inventory, ambient air PID readings, and the completion of a property owner questionnaire. The appropriate field forms for the chemical product inventory and property owner questionnaire shall be obtained from the SVI Guidance.

Sub-Slab Soil Vapor Sample Collection:

A minimum of one (1) centrally-located sub-slab soil vapor sample will be collected from beneath the basement flooring/foundation slab of each residential property. If deemed appropriate by the Department, additional sub-slab points may be added.

After the basement flooring/foundation slab has been inspected, the location of any subsurface utility determined, and the ambient air surrounding the proposed sampling location screened with a PID, a hammer drill will be used to advance a boring to a depth of approximately three to six inches beneath the basement flooring/foundation slab.

The annular space between the bored hole and the sample tubing will be filled and sealed with beeswax (or equivalent) at the surface. The tubing will be connected to a low-flow sample pump. Approximately 1 liter of gas will be purged from the subsurface probe and captured in a Tedlar® bag using the low-flow pump. PID readings will be observed from this sample and the highest reading shall be recorded on the appropriate field form. The air sampling pump will be disconnected and the end of the tubing will be connected directly to the summa canister's regulator intake

valve. Flexible silicone tubing will be used at a minimum and as a tubing adapter only. The sample shall be collected with a laboratory-certified summa canister with dedicated regulator set for a 24-hour sample collection.

The analysis for sub-slab soil vapor samples will achieve detection limits of 1 µg/m^3 for each compound. For specific parameters identified by the NYSDOH, where the selected parameters may have a higher detection limit (e.g., acetone), the higher detection limits will be designated by the NYSDOH.

Indoor Air Sample Collection:

Two (2) indoor air samples will be collected from each residential property including one within the basement area and one within the first floor. If the residential property does not contain a basement, only a first floor indoor air sample will be collected.

All indoor air samples will be collected with a laboratory-certified summa canister regulated for a 24-hour sample collection. The summa canister will be placed in such a location as to collect a representative sample from the breathing zone at 4 to 6 feet above the floor.

The analysis for indoor air samples will achieve detection limits of 1 µg/m^3 for each compound except for TCE which will have a detection limit of 0.25 µg/m^3. For specific parameters identified by the NYSDOH, where the selected parameters may have a higher detection limit (e.g., acetone), the higher detection limits will be designated by the NYSDOH.

Outdoor Air Sample Collection:

All outdoor air samples will be collected with a laboratory-certified summa canister regulated for a 24-hour sample collection. The summa canister will be placed in such a location as to collect a representative sample from the breathing zone at 4 to 6 feet above the ground.

The analysis for outdoor air samples will achieve detection limits of 1 µg/m^3 for each compound except for TCE which will have a detection limit of 0.25 µg/m^3. For specific parameters identified by the NYSDOH, where the selected parameters may have a higher detection limit (e.g., acetone), the higher detection limits will be designated by the NYSDOH.

<u>Sample Identification</u>

The following terminology shall be used for the structure sample identification:

Structure Air Samples

SITE ID[2]-SS-xx (for subslab locations)
SITE ID-BS-xx (for basement indoor ambient air)
SITE ID-FF-xx (for first floor indoor ambient air)
SITE ID-OA-xx (for outdoor ambient air)

[2] SITE ID = NYSDEC site identification number

Task 4a - Structure Sampling: Data Validation/Usability Report

All samples collected must be validated by a party that is independent of the laboratory that the analyses and the Contractor that performed the fieldwork. A usability analysis will be conducted by a qualified data validator and a Data Validation/Usability Report will be submitted to the NYSDEC.

Task 4b - Structure Sampling: Progress Reporting

Progress reporting will be provided and will include information pertaining to the installation, collection and sampling of the properties. All appropriate text, data and figures will be compiled and provided to the Department. Progress reports shall be submitted to the Department and will include preliminary data summary tables as soon as they become available. No conclusions shall be contained within the reports. A database shall also be included compiled from data validated by a qualified data validator. The required format for the data tables will be provided by the NYSDOH. The reports will be required to be issued in both Confidential Version (containing personal addresses, etc.) and Non-Confidential Version (containing coded sample ids and locations) and in hard copy and electronic format.

TASK 5 - Structure Mitigation (if required)

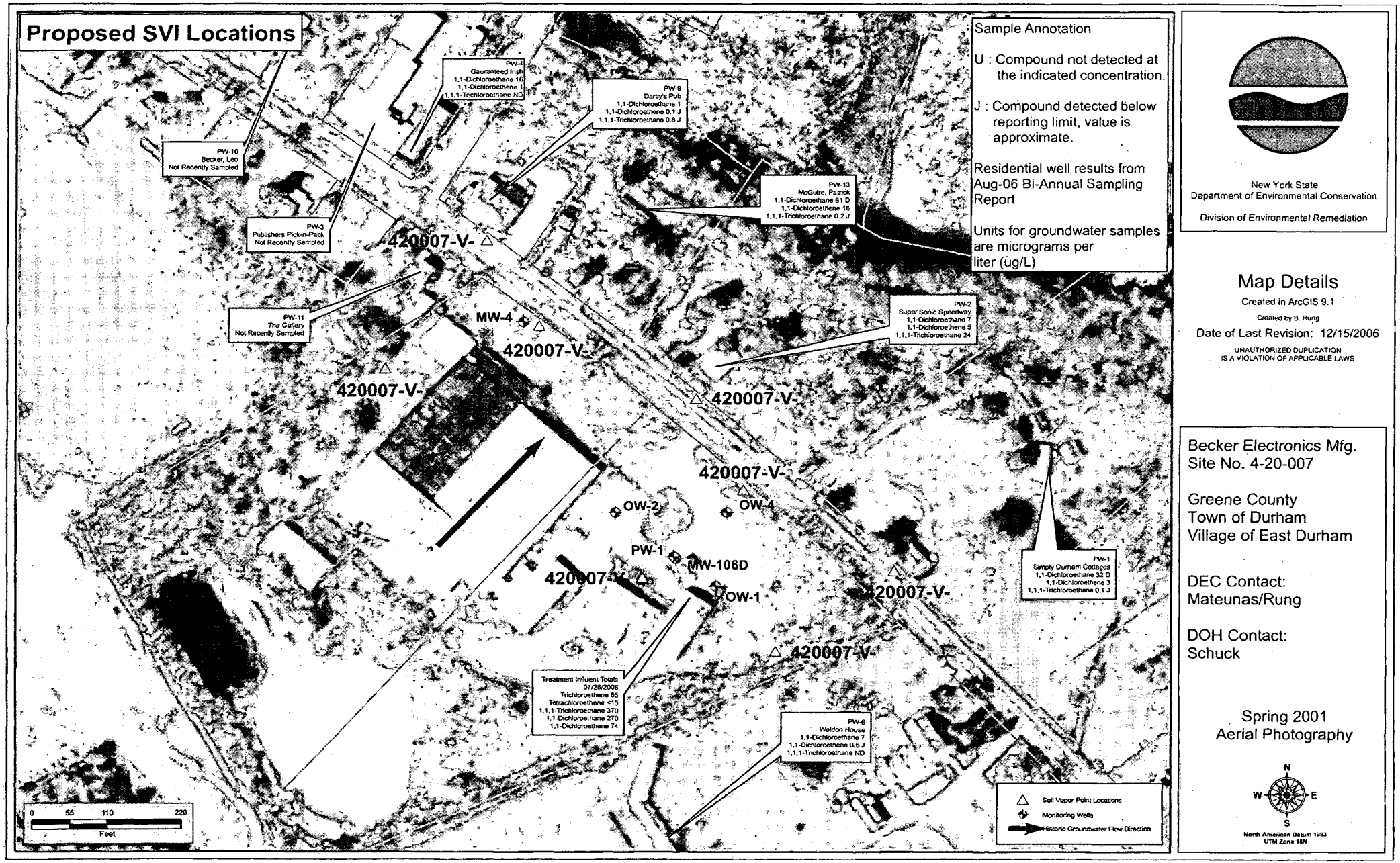
An addendum to this work assignment may be necessary for mitigation of homes in the vicinity of the former Becker Electronics building. At the direction of the Department, soil vapor intrusion mitigation will be executed at homes found to be impacted by sub-slab soil vapors. The protocol for this effort shall follow the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Final, October 2006, [Section 4: Soil Vapor Intrusion Mitigation].

Estimated Budget and Level of Effort (LOE) Summary
Becker Electronics Manufacturing Site
East Durham, New York
Site No. 4-20-007

Task Items	Description/Cost	Dollars
1	Work Plan Development	$2,500
2	Soil Vapor Sampling	$14,560
2a	Soil Vapor Sampling - Data Validation/Usability Report	$1,010
2b	Soil Vapor Sampling - Reporting	$2,830
3	Groundwater Sampling	$6,400
3a	Groundwater Sampling - Data Validation/Usability Report	$800
3b	Groundwater Sampling - Reporting	$2,800
4	Structure Sampling	$14,000
4a	Structure Sampling - Data Validation/Usability Report	$2,100
4b	Structure Sampling - Reporting	$3,000
	Total Estimate Budget (Tasks 1 - 4)	$50,000

Tentative Project Schedule
Becker Electronics Manufacturing Site
East Durham, New York
Site No. 4-20-007

Project Milestone	Date
Issue Work Assignment (WA)	January 2, 2007
Acknowledge Receipt of WA	5 Days after Issuance
Scoping session/site visit	January 8, 2007
Submit Task 1 (Work Plan) Deliverable	January 22, 2007
Notice to Proceed (NTP)	January 29, 2007
Commence Task 2 Field Work	February 5, 2007
Task 2 Field Work Completed	February 19, 2007
Commence Task 3 Field Work	February 5, 2007
Task 3 Field Work Completed	February 19, 2007
Commence Task 4 Field Work	February 5, 2007
Task 4 Field Work Completed	February 19, 2007
Submit Draft Report	March 5, 2007
Approve Draft Report	15 Days after Draft Report Submitted
Submit Final Report	30 Days after Approval of Draft Report



New York State
Department of Environmental Conservation

Division of Environmental Remediation

Map Details

Created in ArcGIS 9.1

Created by B. Rung

Date of Last Revision: 12/15/2006

Becker Electronics Mfg.
Site No. 4-20-007

Greene County
Town of Durham
Village of East Durham

DEC Contact:
Mateunas/Rung

DOH Contact:
Schuck

Spring 2001
Aerial Photography

New York State Department of Environmental Conservation
Division of Management & Budget Services
Bureau of Affirmative Action & Minority
And Women's Business Programs
625 Broadway, Albany , New York 12233-5064
Phone: (518) 402-9311 FAX: (518) 402-9023

Denise M. Sheehan
Commissioner

September 14, 2006

Mr William Weber, P.E.
MACTEC Engineering and Consulting
511 Congress Street, P.O. Box 7050
Portland, Maine 04112-7050

RE: State Superfund Standby Contract
Work Assignment #D004434 1& 2
Immediate Investigation Work Assignments(IIWAs)
Minority and Women's Business Program

Dear Mr. Weber:

The Office of Minority and Women's Business Programs has received a copy of the a work plan budget approval letter for the above-referenced work assignmens. Please be reminded that the M/WBE-EEO goals for the specific work assignments are as follows:

Work Assignment Cost 1&2	100%	$100,000
MBE Goal/Amount:	15%	$15,000
WBE Goal/Amount:	5%	$5,000

EEO Goals
Minority Work Force Participation 10%
Female Work Force Participation 10%

Based on the review of the work assignments, it appears that the following components are conducive to M/WBE participation: Drilling Services, Geophysical Services, Analytical laboratory Services, Subsurface Exploratory services, and Printing and /or Reproduction.

If you require assistance in obtaining the names of NYS certified M/WBE's that specialize in the tasks contained in your contract documents, you may access the Empire State

Development Corporation's M/WBE Directory via the Internet at: http://www.empire.state.ny.us or contact this office.

If you have any questions, I can be reached at (518) 402-9311.

Sincerely,

Vicente Alfonso
Contract Compliance Specialist

cc: B. Moulhem
L. Lewis

DRAFT

Site Summary & Work Plan Package

Vapor Intrusion Evaluations for New York State Remedial Sites

Becker Electronics Manufacturing Site

NYSDEC Site ID # 4-20-007

Village of East Durham
Town of Durham
Greene County

NYSDEC Project Manager: Mark Mateunas

NYSDOH Project Manager: Maureen Schuck

NYSDEC field investigations conducted to determine if there is soil vapor contamination at the site and to determine the extent to which these contaminants pose a threat to human health and the environment.

Soil gas investigations performed in accordance with the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

Site Information Summary for Legacy Sites

Becker Electronics Manufacturing
Site code: 420007

Locality: Greene (C) ***** Unknown ***** (T)

Site class: 02

Site Address:

Route 145

East Durham

Bureau: BURD

DEC Manager: Mateunas

DOH Manager: ?

Site contact information:

Contact: _____ Phone: _____

Address: _____ Fax: _____

_____ Email: _____

_____

Site description: Since 1980, groundwater in the area surrounding this site has been contaminated with solvents, primarily 1,1,1-trichloroethane. Solvents were used by the company in conjunction with their manufacturing operations. The groundwater contamination resulted from the company's practice of dumping waste solvents on the ground. Several nearby residential and business drinking water supply wells were impacted. Becker Electronics installed carbon filters on the impacted drinking water wells in order to reduce contaminant exposure in the drinking water. In 1982, Becker Electronics closed the facility and filed for bankruptcy. The NYSDEC completed a Remedial Investigation/Feasibility Study (RI/FS) for this site in March of 1996. The RI/FS uncovered a significant new source area of contamination at the site. Additional private drinking water supply wells were also found to be contaminated and have also received carbon filter systems. A Record of Decision (ROD) was signed in March of 1996, and a Remedial Action Plan was developed to address the environmental issues raised at this site. All of the carbon filter systems installed in conjunction with this site are currently maintained by the NYSDEC. The design of the final remedy at this site was completed in 1999. Remedial construction began in the fall of 2000 in accordance with the ROD. The following construction activities took place; the debris pile was capped, the chemical storage building was demolished, contaminated soil was removed from the property, and an air stripper was constructed. The work has been completed. Groundwater pump and treating is continuing, and the site is now in O & M.

DOH assessment: Site related contamination is present in the off-site groundwater. Monitoring and maintenance of carbon filter systems on seven affected private wells is ongoing. Routine monitoring of three other private wells also continues. The operation of the on-site groundwater treatment system should limit any additional off-site migration of contaminants in groundwater. NYSDOH and NYSDEC will evaluate the need for additional investigations to determine the potential for soil vapor intrusion into structures on or near the site.

Operable units:

OU: **01** REMEDIAL PROGRAM ROD year: **1996** Bureau: **BURD**

VOCs present?	CVOCs present?	CVOC in groundwater (ug/L)	List volatile chemicals of concern (including non-CVOCs)
y	y		1,1,1-TRICHLOROETHANE (F001 AND F002)

CVOC in soil (ppm)	Depth to max soil conc (ft)

Remedy	Remedy comments	Date completed
Soil Vapor Extraction		July 2004
Not Otherwise Specified		July 2004
Waterline Extension		July 2004

Site Information Summary for Legacy Sites

Becker Electronics Manufacturing
Site code: 420007 **Locality:** Greene (C) ***** Unknown ***** (T) **Site class:** 02

Depth to water table (ft) _____
Are CVOCs present in water table aquifer? u
Soil type _____
Is contamination overlain by clean groundwater? _____
Plume size (L x W) _____
Is there an off-site plume? _____

Analytical data available:

	Date
☐ Soil	
☐ Groundwater	8/30/2005
☐ Soil vapor	
☐ Sub-slab	
☐ Indoor air	
☐ Outdoor air	

Potential receptors:

Land use (onsite) _____
Adjacent land use _____
Number of structures _____
Distance to nearest structure (ft) _____
Est. number of impacted structures(offsite) _____
Sensitive receptors? _____

Construction type
☐ Slab-on-grade
☐ Basement
☐ Crawlspace
☐ Other _____

Future on-site land use _____

Comments:

Note: Attach site map showing proposed sampling locations and copies of most recent sampling data.

In 1996 an RI/FS was completed by NYSDEC for the site per a 1992 Consent Decree ordered by the United States Northern District Court of New York giving the State access to the site to carry out remedial activities.

SECTION 3: CURRENT STATUS

In 1983 the NYSDEC determined that the Becker Electronics site posed a significant threat to human health and the environment. The site was accordingly listed as a Class 2 inactive hazardous waste site and after bankruptcy was declared, the NYSDEC initiated a Remedial Investigation/Feasibility Study (RI/FS).

3.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI/FS, completed this year, was conducted in two phases. A report entitled "Becker Electronics Manufacturing Site East Durham, New York Remedial Investigation/Feasibility Study Report" has been prepared describing the field activities and findings of the RI in detail.

Areas and media of potential concern that were investigated are shown on Figure 2. Investigations in Areas 1, 2, and 3 primarily focused on the septic tanks and associated leach fields in those areas. In addition, soil samples were taken near the northwestern face of the manufacturing building in Area 3, through the loading dock slabs in Area 2 and behind the building in Area 2. Investigation in Area 4 included the area around the chemical storage and maintenance buildings. Investigations were also conducted both in the debris piles above grade in Area 5 and below grade in Area 6. The soil/ sediment (7) ditch water (8) and pond water (9) associated with site drainage ditches and fire pond were also sampled and otherwise investigated. Both the surface water and seeps in the rock face of Thorp and Catskill Creeks (10) were investigated. Both shallow/ overburden (11), and bedrock (12) groundwater associated with the site were also sampled.

Field activities consisted of the following:

- Baseline Air Monitoring
- Surface Geophysical Surveys
- Fracture Trace Analysis
- Surface Water and Sediment Sampling
- Water Table and Bedrock Monitoring Well/Piezometer Installation and Groundwater Sampling
- Subsurface Soil Sampling
- Debris Sampling
- Bedrock Borings and Borehole Geophysical Testing

- Hydrogeologic Testing
- Septic System Sampling
- Ecological and Health Risk Characterization

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the analytical data obtained from the RI was compared to environmental Standards, Criteria, and Guidance (SCGs). Groundwater, drinking water and surface water SCGs identified for the Becker Electronics site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. For the evaluation and interpretation of soil and sediment analytical results, NYSDEC soil cleanup guidelines for the protection of groundwater, background conditions, and risk-based remediation criteria were used to develop remediation goals for soil. For the evaluation and interpretation of air sampling results, NYSDEC Air Guide #1 was used.

Based upon the results of the RI in comparison to the SCGs and potential public health and environmental exposure routes, certain areas and media of the site require remediation. These are summarized below. Chemical concentrations are reported in parts per billion (ppb) and parts per million (ppm) for soil sediment and water samples and parts per billion by volume (ppbv) for air samples. For comparison purposes, SCGs are given for each medium. More complete information can be found in the RI Report.

The presence of contaminants and their significance to human health and the environment are discussed in Section 4.3. Contaminants of concern are listed in Table 1.

3.1.1 Soils and Sediment

Based on the interpreted distribution of total volatile organic chemical (VOC) concentrations found in soils the highest levels of total VOCs in soil are at the chemical storage building. 1,1,1-Trichloroethane (TCA) was found in many of the test pits in the chemical storage building area with a maximum estimated concentration of 64 ppm found directly in front of the building. Other contaminants in this area include Toluene in estimated concentrations to 2,000 ppm, Total Xylene to 3,400 ppm and 2-Butanone to 51 ppm. These and other contaminants of concern discovered in the Chemical Storage Area (Area #4) are presented in Table #1. Other lesser VOC concentrations were detected at the septic system no. 2 leach field, sporadically in drainage ditches, the loading dock area near the former septic system no. 2 tank location, in surface soil west of septic system no. 3 and in some debris pile samples.

Based on the interpreted distribution of selected semi-volatile organic compounds (SVOCs) in soil and sediment (primarily phthalates) the most extensive area of phthalate contamination found, including the highest concentrations of phthalates (primarily BEHP), is the surface debris piles in the southeast corner of the site. BEHP contamination within the debris pile is believed related to use and disposal of epoxy-saturated wood products such as chip and particle board. Other areas of lesser phthalate contamination are the septic system no. 2 leach field, septic system no. 3 soil, the chemical storage building area soil, and site drainages. The source of the phthalate contamination is believed to be both particle board debris and wastewater from the Becker manufacturing building as evidenced by phthalates in residual wastewater from

piping. Additional SVOC contamination also present at the site includes Polynuclear Aromatic Hydrocarbons (PAHs) and phenols, with the highest concentrations associated with the septic system no. 2 leach field.

Inorganic data from site soils and sediment show levels of inorganic concentrations exceeding background in some locations. However, the average inorganic concentration for the entire site, and on-site drainage ditches ,in general, is near or below background.

3.1.2 Groundwater

It is believed that shallow groundwater contamination drains downward into bedrock. Overall, the greatest shallow groundwater contamination is observed at the chemical storage building correlating with the finding of high levels of soil contamination in that area. Groundwater monitoring well 106S located directly in back of the chemical storage building was found to have a TCA concentration of 2600 ppb with a total VOC concentration of 3462 ppb. Lesser VOC contamination in the general vicinity of the debris pile area and septic system no. 2 was also found.

Well 106D which monitors bedrock contamination and is located next to well 106S was found to have high concentrations of TCA, 20,000 ppb, and a total VOC concentration of 33,419 ppb. Other contaminants of concern in both shallow and bedrock groundwater include, 1,1-Dichloroethane (DCA) with concentrations to 7,100 ppb, 1,1-Dichloroethene (DCE) to 2200 ppb, 2 Butanone to 900 ppb (estimated) and total Xylene in the shallow groundwater with a concentration of 30 ppb. These and other contaminants of concern discovered in the shallow and bedrock groundwater are presented in Table #1. Since contamination will follow fractures and cracks in bedrock and these patterns are unevenly distributed in the bedrock, the contamination at a specific location may vary significantly from that indicated in Figure 3. The figure shows that bedrock groundwater contamination is migrating from the site toward Thorp and Catskill Creek. It is believed that, based on groundwater flow directions, the core of the plume extends from the chemical storage building to Catskill Creek south of MW-112. Discharge of bedrock groundwater contamination to Catskill Creek has been observed at seeps along the exposed bedrock face.

3.1.3 Surface Water

Seep results from the rock face of Thorp Creek and Catskill Creek confirm that groundwater VOC contamination discharges to the vicinity of the creeks. The Department conducted sampling of the seeps in September 1995 and found concentrations of 380 ppb of TCA, 35 ppb of DCE, 50 ppb of DCA, 8 ppb of PCA and other contaminants. However, sampling of the creeks at that time confirmed the results of prior sampling events showing that contaminated groundwater entering the creeks was quickly diluted to non-detectable levels. Samples taken from on-site drainage ditches revealed low levels of VOC contamination (up to 12 ppb of Trichloroethene). In general, on-site drainage ditch VOC concentrations appear to have decreased with time.

3.1.4 Potable Water Wells

At this time the Department maintains wellhead treatment systems on 8 homes and businesses that use groundwater impacted by the site. Historically TCA, its breakdown products, and other chemicals have been detected in privately owned water well samples taken prior to receiving treatment from the Department maintained well head treatment systems. A 1981 sample from a privately owned well detected a maximum concentration of TCA of 5,500 ppb. Privately owned well water samples through 1989 found maximum yearly concentrations of TCA to vary between 100 ppb to 310 ppb prior to treatment. All individual water treatment systems are regularly sampled after treatment to insure that the systems are functioning properly. Though several monitoring well groundwater samples exceeded NYS Class GA criteria for some inorganics, no exceedences for inorganics of concern were found in recent Department of Health samples taken from impacted private water wells.

3.2 Interim Remedial Measures:

Interim Remedial Measures are conducted at sites when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

DEC-DHWR and DEC-Spills Management conducted a joint IRM from July through November 1992 during which the following work was performed:

1. Septic tanks were pumped out and steam cleaned. Septic Tanks were removed or demolished and some visibly contaminated soil was excavated.

2. Fuel oil tanks were pumped out removed or backfilled with concrete. Contaminated soil was excavated and disposed.

3. Drums of abandoned chemicals, including flammable corrosive waste, were removed for disposal.

4. A chain link fence was erected.

3.3 Summary of Human Exposure Pathways:

This section describes the completed and potential human exposure pathways to site contaminants associated with present and future use of the site. At the Becker site, the primary contaminants of concern are volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). A list of chemicals of concern associated with the site is presented in Table 1. A detailed discussion of the health risks can be found in Section 7 of the RI Report.

An exposure pathway is the process by which an individual comes into contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events. The following exposure pathways were identified:

Groundwater: VOCs have been detected in potable water wells exceeding drinking water standards. Filter systems have been installed at locations with wells containing VOCs that exceed New York State Sanitary Code Subpart 5-1 maximum contaminant levels. These filter systems are maintained and monitored by NYSDEC (see Figure 3). Homes adjacent to the impacted homes will be monitored to verify that contaminants have not migrated further.

Surface soils: Persons working at the site or occupying the site for other uses, could be exposed to site contaminants in surface soils through direct (dermal) contact as well as inhalation and incidence of ingestion of contaminated soils that may have been carried by the wind. On-site air monitoring will be conducted during remedial activities to evaluate site conditions and to minimize worker exposure. A fence surrounds the site to prevent access to the site by trespassers. Therefore surface soil exposure on site by the public, except for trespassers, is not a completed pathway.

Surface water: Persons working at the site could be exposed to surface water at the site (i.e. the drainage ditch and fire pond). However, this exposure scenario is unlikely and therefore the potential for exposure is considered minimal. A fence surrounds the site to prevent access to the site by trespassers, therefore on-site surface water exposure by the public is not a probable exposure pathway. Off-site surface water does not currently present a significant exposure pathway, and remediation activities should mitigate any potential future exposure.

Sediment: There is a minimal potential for human exposure to site contaminants in seeps near Thorp Creek via direct contact. The contaminant levels in these areas are relatively low. If human exposure occurs at all, it is likely to be infrequent and for short periods of time. These exposures are not likely to result in any health effects.

Subsurface soils: The potential exists for direct contact, inhalation of VOCs and incidental ingestion of soil particulate during excavation activities associated with remediation of the site. A site remediation health and safety plan will address these potential pathways.

3.4 Summary of Environmental Exposure Pathways:

This section summarizes the types of environmental exposures which may be presented by the site. The Habitat Based Assessment included in the RI presents a more detailed discussion of the potential impacts from the site to fish and wildlife resources. The following pathways for environmental exposure have been identified:

Groundwater concentrations of several contaminants, notably chlorinated solvents, exceed criteria concentrations as described in Section 3.1.2. These results in the groundwater indicate that contaminants associated with the site could pose risks to ecological receptors. However, because of the lack of exposure to groundwater, the potential risks to ecological receptors are expected to be minimal. Receptors may also be exposed to contamination in sediments, surface water, and surface soils that exceeds criteria as described in Sections 3.1.1 and 3.1.3 and that may cause toxic effects.

Operation, Maintenance and Monitoring Report
July 2006

Becker Electronics Site
Site 4-20-007

Work Assignment No.
D004445-11

Prepared for:

SUPERFUND STANDBY PROGRAM
New York State
Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by:

Earth Tech Northeast, Inc.
40 British American Boulevard
Latham, New York 12110

BECKER ELECTRONICS
ROUTE 145, E. DURHAM, NY
SITE #: 4-20-007
MONTHLY PERFORMANCE MONITORING
TOTAL INFLUENT RESULTS

		TOTAL INFLUENT - 2006						
Analyte	Units	1/26/06	2/23/06	3/16/06	4/13/06	5/11/06	6/22/06	7/25/06
Vinyl Chloride	ug/L	**4.3 J**	**4.3 J**	<15	<15	**6.8 J**	<15	<15
Chloroethane	ug/L	<15	**6.4 J**	**6.2 J**	<15	**8.9 J**	<15	<15
1,1-Dichloroethene	ug/L	**55**	**58**	**51**	**49**	**61**	**64**	**74**
Acetone	ug/L	<15	<15	<15	<15	<15	<15	<15
Carbon disulfide	ug/L	NR	NR	NR	NR	NR	NR	NR
Methylene Chloride	ug/L	**6.8 J**	**6.2 J**	<15	**7.4 J**	**8.5 J**	<15	<15
1,1-Dichloroethane	ug/L	**280**	**300**	**290**	**240**	**370**	**310**	**270**
c-1,2-Dichloroethene	ug/L	**34**	**54**	<15	**42**	**53**	**50**	**53**
2-Butanone	ug/L	<15	<15	<15	<15	<15	<15	<15
1,1,1-Trichloroethane	ug/L	**260**	**290**	**290**	**290**	**410**	**380**	**370**
Trichloroethene	ug/L	**41**	**53**	**54**	**55**	**71**	**77**	**65**
4-Methyl-2-pentanone	ug/L	<15	<15	<15	<15	<15	<15	<15
Toluene	ug/L	<15	<15	<15	<15	<15	<15	<15
Tetrachloroethene	ug/L	<15	<15	<15	<15	<15	<15	<15
2-Hexanone	ug/L	NR	NR	NR	NR	NR	NR	NR
1,2-Dibromo-3-chloropropane	ug/L	NR	NR	NR	NR	NR	NR	NR
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA
Aluminum	ug/L	<200	<200	<200	<200	<200	<200	<200
Arsenic	ug/L	<20	<20	<20	<20	<20	<20	**110**
Barium	ug/L	**420**	**420**	**430**	**420**	**400**	**400**	**450**
Chromium	ug/L	<20	<20	<20	<20	<20	<20	<20
Cobalt	ug/L	<50	<50	<50	<50	<50	<50	<50
Copper	ug/L	<30	<30	<30	<30	<30	<30	<30
Iron	ug/L	**240**	<200	**260**	<200	**280**	**210**	**5900**
Lead	ug/L	<10	<10	<10	<10	<10	<10	<10
Manganese	ug/L	**710**	**550**	**560**	**680**	**460**	**690**	**530**
Nickel	ug/L	<50	<50	<50	<50	<50	<50	<50
Selenium	ug/L	<30	<30	<30	<30	<30	<30	<30
Thallium	ug/L	<20	<20	<20	<20	<20	<20	<20
Zinc	ug/L	<50	<50	<50	<50	<50	<50	<50
Total Dissolved Solids	mg/L	**230**	**220**	**200**	**200**	**240**	**210**	**220**
Total Suspended Solids	mg/L	<10	<10	<10	<10	<10	<10	<10

NOTES:
Data are shown only for those analytes that have been detected in this or prior sampling events. Detected concentrations are shown in bold font.
Analysis by EPA Method 8260 for volatile organics.
NR - Results of analysis not reported.
NA - Analysis not performed for indicated analyte.
D - Analysis performed on diluted sample.
J - Estimated concentration.
B - Indicates that analyte was detected in the associated Method Blank.
** Analyte detected in associated trip blank.

BECKER ELECTRONICS
ROUTE 145, E. DURHAM, NY
SITE #: 4-20-007
MONTHLY PERFORMANCE MONITORING
TOTAL INFLUENT RESULTS

Analyte	Units	TOTAL INFLUENT - 2005								
		4/12/05	5/10/05	6/14/05	7/20/05	8/18/05	9/15/05	10/20/05	11/17/05	12/15/05
Vinyl Chloride	ug/L	**5.8**	**9.0**	**4.8 J**	<50	**9.8**	**4.4 J**	<10	**6.0 J**	**6.1 J**
Chloroethane	ug/L	**6**	**6.3**	**5.5**	<50	**9.8**	<15	<10	**10 J**	**10 J**
1,1-Dichloroethene	ug/L	**58**	**98**	**47**	**81**	**55**	**49**	**60**	**90**	**72**
Acetone	ug/L	<5	<5	<5	<50	<5.0	<15	<10	<15	<15
Carbon disulfide	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR
Methylene Chloride	ug/L	**7.1**	**6.2**	**2.4 BJ**	<50	**4.7 J**	**4.0 J**	**12.0**	**11 J**	**9.3 J**
1,1-Dichloroethane	ug/L	**280 D**	**250 D**	**210 D**	**370**	**280 D**	**250**	**220**	**270**	**280**
c-1,2-Dichloroethene	ug/L	**40**	**31**	**26**	**67**	**49**	**52**	**45**	**50**	**47**
2-Butanone	ug/L	<5	<5	<5	<50	<5.0	<15	<10	<15	<15
1,1,1-Trichloroethane	ug/L	**340 D**	**290 D**	**210 D**	**530**	**350 D**	**320**	**210**	**310**	**300**
Trichloroethene	ug/L	**62**	**54**	**39**	**90**	**55**	**50**	**43**	**60**	**48**
4-Methyl-2-pentanone	ug/L	<5	<5	<5	<50	<5.0	<15	<10	<15	<15
Toluene	ug/L	<5	<5	<5	<50	<5.0	<15	<10	<15	<15
Tetrachloroethene	ug/L	**1.9 J**	**2.0J**	**1.7 J**	<50	**1.7 J**	<15	**2.2 J**	<15	<15
2-Hexanone	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-Dibromo-3-chloropropane	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NR	NR	NR	NR	NR	NR	NR
Aluminum	ug/L	<200	<200	<200	<200	<200	<200	<200	<200	<200
Arsenic	ug/L	<20	<20	**21**	<20	<20	<20	<20	<20	<20
Barium	ug/L	**430**	**410**	**400**	**460**	**480**	**510**	**950**	**410**	**430**
Chromium	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cobalt	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Copper	ug/L	<30	<30	<30	<30	<30	<30	**44**	<30	<30
Iron	ug/L	**220**	<200	**880**	**770**	<200	<200	**2900**	**290**	**1100**
Lead	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Manganese	ug/L	**660**	**560**	**800**	**510**	**560**	**670**	**4500**	**820**	**810**
Nickel	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Selenium	ug/L	<30	<30	<30	<30	<30	<30	<30	<30	<30
Thallium	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Zinc	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50
Total Dissolved Solids	mg/L	**220**	**210**	**240**	**230**	**230**	**240**	**300**	**240**	**230**
Total Suspended Solids	mg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10

NOTES:

Data are shown only for those analytes that have been detected in this or prior sampling events. Detected concentrations are shown in bold font.
Analysis by EPA Method 8260 for volatile organics.
NR - Results of analysis not reported.
NA - Analysis not performed for indicated analyte.
D - Analysis performed on diluted sample.
J - Estimated concentration.
B - Indicates that analyte was detected in the associated Method Blank.
** Analyte detected in associated trip blank.
Sampling was not performed in the first quarter of 2005.

BECKER ELECTRONICS
ROUTE 145, E. DURHAM, NY
SITE #: 4-20-007
MONTHLY PERFORMANCE MONITORING
TOTAL INFLUENT RESULTS

Analyte	Units	TOTAL INFLUENT - 2004											
		1/20/04	2/18/04	3/19/04	4/13/04	5/12/04	6/22/04	7/21/04	8/17/04	9/14/04	10/13/04	11/23/04	
Vinyl Chloride	ug/L	**5.3**	**5.7**	**7.1**	**8.0**	**6.3**	**6 J**	**5.9**	**6.5**	**5.1**	**7.1**	**6.2**	
Chloroethane	ug/L	**5 J**	**6**	<5	**5.4**	**6.8**	**7 J**	**9.9**	**7.6**	**5.6**	<5	**6.8**	
1,1-Dichloroethene	ug/L	**68**	**69**	**78**	**95**	**59**	**63**	**74**	**73**	**55**	**74**	**98**	
Acetone	ug/L	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	
Carbon disulfide	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Methylene Chloride	ug/L	**4 J**	**7.8**	**5.6**	**5 J****	**5.2**	**8 J**	**10.0**	**8.7 B**	**4 J**	**6.1**	**12**	
1,1-Dichloroethane	ug/L	**220**	**270**	**280**	**210 D**	**340 D**	**280 D**	**310D**	**400 D**	**250 D**	**240 D**	**390 D**	
c-1,2-Dichloroethene	ug/L	**35**	**53**	**38**	**33**	**39**	**37**	**50**	**53**	**39**	**50**	**87**	
2-Butanone	ug/L	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	
1,1,1-Trichloroethane	ug/L	**240**	**220**	**300**	**250 D**	**330 D**	**310 D**	**370D**	**410 D**	**310 D**	**310 D**	**660 D**	
Trichloroethene	ug/L	**45**	**49**	**47**	**51**	**52**	**47 D**	**53**	**49**	**48**	**49**	**97**	
4-Methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	
Toluene	ug/L	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	
Tetrachloroethene	ug/L	**3 J**	**2 J**	**2 J**	**3 J**	**2 J**	<20	**2 J**	**2 J**	**2 J**	**2 J**	**3 J**	
2-Hexanone	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
1,2-Dibromo-3-chloropropane	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aluminum	ug/L	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	
Arsenic	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	**24**	
Barium	ug/L	**450**	**470**	**430 B**	**420**	**440**	**450**	**460**	**470**	**460**	**450**	**480**	
Chromium	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Cobalt	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Copper	ug/L	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	
Iron	ug/L	<200	<200	**240**	**240**	**430**	**200**	**250**	**220**	**250**	**270**	**1300**	
Lead	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Manganese	ug/L	**780**	**870 B**	**690**	**710**	**790**	**560**	**560**	**1300**	**770**	**610**	**670**	
Nickel	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Selenium	ug/L	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	
Thallium	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Zinc	ug/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Total Dissolved Solids	mg/L	**210**	**220**	**210**	**220**	**230**	**250**	**240**	**240**	**230 B**	**230**	**260**	
Total Suspended Solids	mg/L	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	

NOTES:
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Analysis by EPA Method 8260 for volatile organics.
NR - Results of analysis not reported.
NA - Analysis not performed for indicated analyte.
D - Analysis performed on diluted sample.
J - Estimated concentration.
B - Indicates that analyte was detected in the associated Method Blank.
** Analyte detected in associated trip blank.
Sampling was not performed in December 2004.

BECKER ELECTRONICS
ROUTE 145, E. DURHAM, NY
SITE #: 4-20-007
MONTHLY PERFORMANCE MONITORING
TOTAL INFLUENT RESULTS

Analyte	Units	TOTAL INFLUENT - 2003											
		1/28/03	2/25/03	3/25/03	4/22/03	5/20/03	6/17/03	7/15/03	8/14/03	9/25/03	10/29/03	11/26/03	12/22/03
Vinyl Chloride	ug/L	7	6	SL	7	5	6	5 J	7	7	6	5	6.3
Chloroethane	ug/L	14	8	SL	8	7	8	9 J	8	7	7	7	6.9
1,1-Dichloroethene	ug/L	150	83	SL	86	54	98	120	98	86	88	75	72
Acetone	ug/L	<5	<5	SL	<5	10	<5	<20	4 J	<5	<5	<5	<5
Carbon disulfide	ug/L	NR	NR	SL	NR	NR	NR	NR	NR	NR	NR	NR	NR
Methylene Chloride	ug/L	28	9 B	SL	8	7	12	10 J	8	4 J	9	6	9.6
1,1-Dichloroethane	ug/L	430 D	320 D	SL	430 D	280 D	430 D	300	330 D	250 D	330 D	280 D	290 D
c-1,2-Dichloroethene	ug/L	100	47	SL	36	37	49	37	56	36	54	44	56
2-Butanone	ug/L	<5	<5	SL	<5	<5	<5	<20	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	910 D	400 D	SL	480 D	320 D	490 D	430	450 D	220 D	400 D	330 D	340 D
Trichloroethene	ug/L	140	67	SL	54	48	65	58	65	41	58	49	54
4-Methyl-2-pentanone	ug/L	<5	<5	SL	<5	<5	<5	<20	<5	<5	<5	<5	<5
Toluene	ug/L	4 J	<5	SL	<5	<5	<5	<20	1 J	<5	<5	<5	<5
Tetrachloroethene	ug/L	2 J	3 J	SL	3 J	3 J	3 J	<20	4 J	2 J	2 J	3 J	3 J
2-Hexanone	ug/L	NR	NR	SL	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-Dibromo-3-chloropropane	ug/L	NR	NR	SL	NR	NR	NR	NR	NR	NR	NR	NR	NR
bis(2-Ethylhexyl)phthalate	ug/L	NA	NA	SL	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	ug/L	<12	<17	<17	<17	<17	<17	<200	<200	<200	<200	<200	<200
Arsenic	ug/L	9.0 B	7.5 B	6.9 B	5.8 B	10.5 B	8.6 B	<20	<20	<20	<20	<20	<20
Barium	ug/L	459	444	402	435	418	448	460	480	480	450	430	420
Chromium	ug/L	<3.0	<0.60	<0.60	<0.60	<0.60	<0.60	<20	<20	<20	<20	<20	<20
Cobalt	ug/L	<3.0	<0.90	0.91 B	<0.90	<0.90	0.99 B	<50	<50	<50	<50	<50	<50
Copper	ug/L	3.4 B	<4	<4	<4	<4	<4	<30	<30	<30	<30	<30	<30
Iron	ug/L	249 B	216	220	163 B	126 B	169 B	330	310	230	280	210	<200
Lead	ug/L	<10	<4	<4	<4	<4	<4	<10	<10	<10	<10	<10	<10
Manganese	ug/L	1090	1020	1140	793	1090	771	780	630	640	1100	860	920
Nickel	ug/L	1.1 B	<0.80	1.3 B	<0.80	0.93 B	1.9 B	<50	<50	<50	<50	<50	<50
Selenium	ug/L	<8.0	<9.0	<9.0	<9.0	<9.0	<9.0	<30	<30	<30	<30	<30	<30
Thallium	ug/L	<4.0	<3.0	<3.0	<3.0	<3.0	<3.0	<20	<20	<20	<20	<20	<20
Zinc	ug/L	<8.0	<7.0	<7.0	<7.0	<7.0	18.4 B	<50	<50	<50	<50	<50	<50
Total Dissolved Solids	mg/L	260	230	200	230	240	220	220	240	270	240	220	230
Total Suspended Solids	mg/L	12	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

NOTES:
Data are shown only for those analytes that have been detected in this or prior sampling events. Detected concentrations are shown in bold font.
Analysis by EPA Method 8260 for volatile organics.
NR - Results of analysis not reported.
NA - Analysis not performed for indicated analyte.
D - Analysis performed on diluted sample.
J - Estimated concentration.
B - Indicates that analyte was detected in the associated Method Blank.
SL - Analytical laboratory apparently lost sample container and could not perform indicated analyses.

BECKER ELECTRONICS
ROUTE 145, E. DURHAM, NY
SITE #: 4-20-007
MONTHLY PERFORMANCE MONITORING
TOTAL INFLUENT RESULTS

Analyte	Units	TOTAL INFLUENT - 2002												
		1/23/02	1/23/02 (Dup.)	2/27/02	3/27/02	4/26/02	5/20/02	6/19/02	7/24/02	8/21/02	9/18/02	10/23/02	11/19/02	12/17/02
Vinyl Chloride	ug/L	**5**	**9**	<25	**9 J**	**7 J**	**8 J**	**8**	<100 D	**5**	**8 J**	**8**	<20	**8 J**
Chloroethane	ug/L	**8**	**12**	<25	**12 J**	**10 J**	**16 J**	**15**	<100 D	**11**	**9 J**	**9**	<20	**12 J**
1,1-Dichloroethene	ug/L	**82**	**120**	**120**	**140**	**82**	**87**	**150**	**470 D**	**220 D**	**89**	**110**	**110**	**150**
Acetone	ug/L	<5	<5	<25	<40	<20	<25	<5	<100 D	<5	<15	<5	<20	<40
Carbon disulfide	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Methylene Chloride	ug/L	**21**	**16**	<25	**24 J**	**7 J**	**10 J**	**12**	**130 D**	**32**	**5 J**	**10**	**4 J**	**30 J**
1,1-Dichloroethane	ug/L	**540 D**	**700 D**	**480**	**540**	**480**	**420**	**410 D**	**970 D**	**490 D**	**350**	**410 D**	**350**	**470**
c-1,2-Dichloroethene	ug/L	**92**	**97**	**71**	**71**	**45**	**54**	**58**	**340 D**	**120**	**34**	**73**	**34**	**72**
2-Butanone	ug/L	<5	<5	<25	<40	<20	<25	<5	<100 D	<5	<15	<5	<20	<40
1,1,1-Trichloroethane	ug/L	**690 D**	**860 D**	**640**	**860**	**450**	**530**	**540 D**	**2800 D**	**1000 D**	**440**	**560 D**	**360**	**870**
Trichloroethene	ug/L	**99**	**100**	**84**	**84**	**58**	**75**	**81**	**360 D**	**160**	**52**	**78**	**38**	**110**
4-Methyl-2-pentanone	ug/L	<5	<5	<25	<40	<20	<25	<5	<100 D	<5	<15	<5	<20	<40
Toluene	ug/L	**8**	**5**	<25	<40	<20	<25	**2 J**	**27 JD**	**2 J**	<15	**3 J**	<20	<40
Tetrachloroethene	ug/L	**2 J**	**3 J**	<25	<40	<20	<25	**4 J**	<100 D	**4 J**	**4 J**	**4 J**	<20	<40
2-Hexanone	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-Dibromo-3-chloropropane	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
bis(2-Ethylhexyl)phthalate	ug/L	**1 J ***	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	ug/L	**38.7 B**	NA	**94.5 B**	<7.5	**21.2 B**	**120 B**	**12.3**	<12	<12	<200	<12	<200	<12
Arsenic	ug/L	**9.1 B**	NA	**6.3 B**	**8.3 B**	**9.6 B**	**167**	**9.5 B**	**10.5 B**	**8.7 B**	<20	**7.3 B**	<20	**7.9 B**
Barium	ug/L	**460**	NA	**486**	**527**	**497**	**598**	**486**	**462**	**461**	**440**	**528**	**480**	**451**
Chromium	ug/L	**0.54 B**	NA	<3	<3	<3	**1.7 B**	<3	<3	<3	<20	<3.0	<20	<3.0
Cobalt	ug/L	<0.6	NA	<3	<3	<3	**1.1 B**	<3	<3	<3	<50	<3.0	<50	<3.0
Copper	ug/L	**4.5 B**	NA	<2	<2	**4.5 B**	**2.3 B**	<2	**7.5 B**	<2	<30	<2.0	<30	<2.0
Iron	ug/L	**446**	NA	**114 B**	**339**	**218**	**14800**	**433**	**1040**	**761**	**1100**	**452**	**270**	**334**
Lead	ug/L	<2	NA	**3.5 B**	<1	<1	<0.50	<1	<1	<1	<10	<1.0	<10	<1.0
Manganese	ug/L	**1260**	NA	**1350**	**620**	**648**	**1180**	**1190**	**3020**	**1340**	**1200**	**1340**	**1100**	**1410**
Nickel	ug/L	**0.87 B**	NA	<1	**1.4 B**	**2.0 B**	**1.8 B**	**1.6 B**	**3.3 B**	**1.0 B**	<50	**0.98 B**	<50	<1.0
Selenium	ug/L	<6	NA	<8	<8	<8	<2	<8	<8	<8	<30	<8.0	<30	<8.0
Thallium	ug/L	**5.2 B**	NA	**4 B**	<4	<4	**2.9 B**	<4	<4	<4	<20	<4.0	<20	<4.0
Zinc	ug/L	<6	NA	<8	<8	<8	<8	<8	**8.4 B**	<8	<50	<8.0	<50	<8.0
Total Dissolved Solids	mg/L	**260**	NA	**270**	**220**	**240**	**250**	**220**	**290**	**270**	**240**	**240**	**230**	**230**
Total Suspended Solids	mg/L	<10	NA	<10	<10	<10	**61**	<10	<10	<10	<10	<10	<10	<10

NOTES:

Data are shown only for those analytes that have been detected in this or prior sampling events. Detected concentrations are shown in bold font.

* - Sample for this analysis was collected on 1/31/02.

Analysis by EPA Method 8260 for volatile organics.

NR - Results of analysis not reported.

NA - Analysis not performed for indicated analyte.

D - Analysis performed on diluted sample.

J - Estimated concentration.

B - Indicates that analyte was detected in the associated Method Blank.

BECKER ELECTRONICS
ROUTE 145, E. DURHAM, NY
SITE #: 4-20-007
MONTHLY PERFORMANCE MONITORING
TOTAL INFLUENT RESULTS

Analyte	Units	TOTAL INFLUENT - 2001														
		4/12/01	4/19/01	4/26/01	5/3/01	5/10/01	5/17/01	5/24/01	5/31/01	6/27/01	7/26/01	8/22/01	9/24/01	10/26/01	11/30/01	12/17/01
Vinyl Chloride	ug/L	**22**	**13**	**13**	**8**	**13**	<20	**11**	**10**	**11**	**10**	<50	<25	**10**	<25	<25
Chloroethane	ug/L	**40**	**24**	<25	**14**	**22**	<20	**21**	**16**	**17**	**15**	**16**	<25	<25	<25	<25
1,1-Dichloroethene	ug/L	**220**	**150**	**190**	**79**	**150**	**170**	**190**	**170**	**160**	**120**	**190**	**140**	**160**	**170**	**120**
Acetone	ug/L	**44**	<50	**27**	<25	<40	#	<25	<50	<25	<25	<50	<25	<25	<25	<25
Carbon disulfide	ug/L	<50	<50	<25	<25	<40	#	<25	<50	<25	<25	<50	<25	<25	<25	<25
Methylene Chloride	ug/L	**82**	**46**	**44**	**22**	**37**	**34**	**54**	<50	**36**	**18**	**60**	**16**	**21**	<25	<25
1,1-Dichloroethane	ug/L	**970**	**680**	**710**	**320**	**660**	**560**	**650**	**520**	**540**	**500**	**680**	**530**	**600**	**690**	**540**
c-1,2-Dichloroethene	ug/L	**250**	**170**	**180**	**70**	**120**	**120**	**150**	**110**	**110**	**92**	**170**	**97**	**90**	**120**	**82**
2-Butanone	ug/L	<50	**22**	**49**	<25	<40	#	**22**	<50	<25	<25	<50	<25	<25	<25	<25
1,1,1-Trichloroethane	ug/L	**930**	**810**	**840**	**940**	**770**	**760**	**1000**	**790**	**720**	**660**	**1200**	**710**	**860**	**830**	**760**
Trichloroethene	ug/L	**150**	**150**	**140**	**68**	**130**	**140**	**180**	**150**	**150**	**100**	**210**	**120**	**110**	**100**	**84**
4-Methyl-2-pentanone	ug/L	<50	<50	**7**	<25	<40	#	<25	<50	<25	<25	<50	<25	<25	<25	<25
Toluene	ug/L	**10**	**14**	**12**	**6**	**9**	<20	**18**	<50	**14**	<25	**23**	**6**	<25	<25	<25
Tetrachloroethene	ug/L	<50	<50	<25	<25	<40	<20	<25	<50	<25	<25	<50	<25	<25	<25	<25
2-Hexanone	ug/L	<50	<50	**6**	<25	<40	#	<25	<50	<25	<25	<50	<25	<25	<25	<25
1,2-Dibromo-3-chloropropane	ug/L	<50	<50	**11**	<25	<40	<20	<25	<50	<25	<25	<50	<25	<25	<25	<25
bis(2-Ethylhexyl)phthalate	ug/L															
Aluminum	ug/L															
Arsenic	ug/L															
Barium	ug/L															
Chromium	ug/L															
Cobalt	ug/L															
Copper	ug/L															
Iron	ug/L															
Lead	ug/L															
Manganese	ug/L															
Nickel	ug/L															
Selenium	ug/L															
Thallium	ug/L															
Zinc	ug/L															
Total Dissolved Solids	mg/L															
Total Suspended Solids	mg/L															

NOTES:
Sampling performed in 2001 by The Tyree Organization (analytical data for the period are shown as provided by NYSDEC); subsequent sampling performed by Earth Tech.
Data are shown only for those analytes that have been detected in this or prior sampling events. Detected concentrations are shown in bold font.
Analysis by EPA Method 8260 for volatile organics.
NR - Results of analysis not reported.
NA - Analysis not performed for indicated analyte.
D - Analysis performed on diluted sample.
J - Estimated concentration.
B - Indicates that analyte was detected in the associated Method Blank.
- Sample met EPA Method 524.

EarthTech
A tyco International Ltd. Company

Bi-Annual Sampling Report
For Treatment Systems

March 2006 – August 2006

Becker Electronics Multi-Site Wells

Site Code # 4-20-007
Work Assignment Number D004445-7

Prepared for:
Superfund Standby Program
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12233-7013

Prepared by:
Earth Tech Northeast, Inc.
40 British American Boulevard
Latham, New York 12110

October 2006

Table 1
Becker Electronics Site, Town of East Durham, NY
Location and System Information

Location	Owner/Contact	Phone #		Well ID	System Location	GAC Size	UV Type
Simply Durham Cottages (Keogh Cottages) Route 145 East Durham ,N.Y. 12423	Mr. Guy Norbury	(518)634-7724		PW-1	Basement of main house.	(2) 14" X 47"	Trojan UV 612
Supersonic Speedway Route 145 East Durham ,N.Y. 12423	Mr./Mrs. Handel	(518)634-7200 (518)622-2934	(W) (H)	PW-2	Housed in the rear of the main building.	(2) 10" X 54"	Trojan UV 612
Publishers Pick & Pack Route 145 East Durham ,N.Y.	Salvatore Stratis	(518)634-2911		PW-3	Unknown	Unknown	Trojan UV 608
Guaranteed Irish Route 145 East Durham ,N.Y. 12423	Donald Gallagher	(518)634-2392 (518)634-7409	(W) (H)	PW-4	Store room/basement, in closet in furthest left hand corner of building.	(2) 10" X 54"	Trojan UV 608
Weldon House aka Michael J. Quill Irish Cultural & Sports Center Route 145 East Durham N.Y. 12423	Richy Hasa Route 145 East Durham, New York 12423 Christine Wickes Executive Secretary of the Center	(518)634-2609 (845)735-7589 (518)634-2609	(W) (H) (W)	PW-6	Utility/linen room in middle of motel.	(2) 30" X 72"	2 / Sanitron 40 Gpm UV'S
Darby's Pub Route 145 East Durham	Susan Frey	(518)622-9317 (518)622-0993	(W) (H)	PW-9	Located in the basement.	(2) 14" X 47"	Trojan UV 612
Leo Becker Route 145 East Durham N.Y. 12423	Leo Becker	(518)634-7354		PW-10	Located in the basement.	(2) 10" X 54"	Trojan UV 608
The Gallery Route 145 East Durham	Donald Gallagher	(518)622-9001		PW-11	Located in the basement.	(2) 10" X 54"	Trojan UV 608
Patrick McGuire Po Box 372 East Durham N.Y. 12423	Patrick McGuire (owner)	(718)365-3606 (518-634-7764)	(O) (T)	PW-13	Located in a separate shed.	(2) 14" X 47"	Ideal Horizon SV-7

Table 2a
Becker Electronics Site, Town of East Durham, NY
Raw Water Analytical Summary

Location/ COC	Well ID	Nov-90	May-91	Aug-91	Jul-92	Dec-92	Feb-93	May-93	Oct-93	Jul-94	Sep-94	Oct-94	Dec-95
Keogh Cottages	PW-1												
1,1-Dichloroethane		42	29	30	34	31		35		30	30		
1,1,1-Trichloroethane		-	-	5.8	-	-		-		1	-		
1,1-Dichloroethene		-	-	-	-	-		-		-	1		
Vinyl Chloride		-	-	-	-	-		-		-	-		
cis-1,2-Dichloroethene		-	-	-	-	-		-		-	-		
Chloroethane		-	-	-	-	-		-		-	-		
Supersonic Speedway	PW-2												
1,1-Dichloroethane		-	-	2.2	5	1		4					
1,1,1-Trichloroethane		2	1.6	4	11	14		13					
Vinyl Chloride		-	-	-	-	-		-					
1,1-Dichloroethene		-	-	-	-	-		-					
cis-1,2-Dichloroethene		-	-	-	-	-		-					
Trichloroethylene		-	-	-	-	-		-					
Chloroethane		-	-	-	-	-		-					
1,2-Dichloroethane		-	-	-	-	-		-					
Publishers Pick &Pack	PW-3												
1,1-Dichloroethane		1	3	3.4	2		19	10	5	8	4		10.8
1,1,1-Trichloroethane		1	-	-	7		5	-	1	50	3		-
1,1-Dichloroethene		-	-	-	-		-	-	-	-	-		-
Vinyl Chloride		-	-	-	-		-	-	-	-	-		0.6
Chloroethane		-	-	-	-		-	-	-	-	-		1.2
Guaranteed Irish	PW-4												
1,1-Dichloroethane			2.4	-	2	1		3		5	-	4	10.7
1,1,1-Trichloroethane			-	4.3	-	-		-		-	-	-	-
Chloroethane			-	-	-	-		-		-	-	-	0.91
Weldon House	PW-6												
1,1-Dichloroethane			55	60	35								
1,1,1-Trichloroethane			0.06	1.3	-								
Chloroethane			-	-	-								
Darby's Pub	PW-9												
Trichloroethylene			-	-	-	-		-	0.9	1	1		-
1,1-Dichloroethane			3.3	2.5	2	2		1	2	1	2		5.4
1,1,1-Trichloroethane			-	1.5	1	-		0.8	2	2	2		2.2
Chloroethane			-	-	-	-		-	-	-	-		0.75
Leo Becker	PW-10												
1,1-Dichloroethane			14	-				8	7				7.9
1,1,1-Trichloroethane			-	0.8				-	-				-
The Gallery	PW-11												
1,1-Dichloroethane			5.4	4.2	2			-	3	2	2		
1,1,1-Trichloroethane			22	12	12			-	9	13	11		
1,1-Dichloroethene			-	-	-			-	-	-	-		
cis-1,2-Dichloroethene			-	-	-			-	-	-	-		
Trichloroethylene			-	-	-			-	2	3	5		
Patrick McGuire	PW-13												
1,1-Dichloroethane				8	13			140		167			
1,1,1-Trichloroethane				4.1	13			11		-			
1,1-Dichloroethene				-	-			8		6			
cis-1,2-Dichloroethene				-	-			-		-			
Trichloroethylene				-	-			-		-			
Vinyl Chloride				-	-			-		-			

Table 2a
Becker Electronics Site, Town of East Durham, NY
Raw Water Analytical Summary

Location/ COC	Well ID	Sep-96	Apr-97	Aug-97	Nov-97	May-98	Aug-98	Dec-98	Jul-99	Nov-99	Jun-00	Jul-00
Keogh Cottages	PW-1											
1,1-Dichloroethane		33	39	-		-			26		27	
1,1,1-Trichloroethane		-	-	-		-			1.6		2	
1,1-Dichloroethene		1.9	2	-		-			0.7		-	
Vinyl Chloride		1.5	7	-		-			1.1		1	
cis-1,2-Dichloroethene		0.77	-	-		-			0.7		0.4	
Chloroethane		-	-	-		-			2.6		-	
Supersonic Speedway	PW-2											
1,1-Dichloroethane		52.2	21				41		44			0.8
1,1,1-Trichloroethane		50	30				46		7.8			2
Vinyl Chloride		1.1	3				-		-			-
1,1-Dichloroethene		13.8	12				12		19			-
cis-1,2-Dichloroethene		6.3	3				-		-			-
Trichloroethylene		4.5	2				4.5		71			-
Chloroethane		3	-				-		0.9			-
1,2-Dichloroethane		-	-				-		-			-
Publishers Pick &Pack	PW-3											
1,1-Dichloroethane		17.3	29		15	23		19	16			
1,1,1-Trichloroethane		-	-		-	-		-	-			
1,1-Dichloroethene		0.79	-		-	-		-	-			
Vinyl Chloride		1.5	-		-	-		-	0.8			
Chloroethane		2.7	3		0.9	-		-	2.8			
Guaranteed Irish	PW-4											
1,1-Dichloroethane		13.7	9		7	9.8		10	14	11	15	
1,1,1-Trichloroethane		-	-		-	-		-	-	-	-	
Chloroethane		-	-		-	-		-	2	1	2	
Weldon House	PW-6											
1,1-Dichloroethane												15
1,1,1-Trichloroethane												-
Chloroethane												2
Darby's Pub	PW-9											
Trichloroethylene		2.3	0.7									
1,1-Dichloroethane		2.2	4									
1,1,1-Trichloroethane		4.4	2									
Chloroethane			-									
Leo Becker	PW-10											
1,1-Dichloroethane			13			14		7.1			-	11
1,1,1-Trichloroethane			-			-		-			-	-
The Gallery	PW-11											
1,1-Dichloroethane		9.4	4				2	3.7		3	4	
1,1,1-Trichloroethane		58.4	21				11	22		17	27	
1,1-Dichloroethene		7.3	8				0.9	-		2	3	
cis-1,2-Dichloroethene		7.6	2				-	2.8		2.3	1	
Trichloroethylene		22.5	4				3.6	-		6	5	
Patrick McGuire	PW-13											
1,1-Dichloroethane		91.5	150			200				160		210
1,1,1-Trichloroethane		6.5	-			5				111		3
1,1-Dichloroethene		10.9	8			16				15		17
cis-1,2-Dichloroethene		1.8	-			1				2		1
Trichloroethylene		2	-			-				1		0.7
Vinyl Chloride		4.6	-			1				9		8

Table 2b
Becker Electronics Site, Town of East Durham, NY
Raw Water Analytical Summary - 2001- 2004

Location/ COC	Well ID	Feb/May-01	6 Mo.Flow (gal)	Aug 01	6 Mo.Flow (gal)	Feb 02	6 Mo.Flow (gal)	Aug 02	6 Mo.Flow (gal)	Feb 03	6 Mo.Flow (gal)	Aug 03	6 Mo.Flow (gal)	Feb 04	6 Mo.Flow (gal)	Aug 04
Keogh Cottages	PW-1	Meter 365808 cu ft (2,736,244 gal) Changed Carbon Tank 1	106,178	Meter 380003 cu ft (2,842,422 gal) Changed Carbon both tanks	58,808	Meter 387665 cu ft (2,901,230 gal)	109,881	Meter 402555 cu ft (3,011,111gal)	18,109	Meter 404876 cu ft (3,029,220gal) Changed Carbon Tank 1	42,337	Meter 410636 cu ft (3,071,557gal)	18,969	Meter 413172 cu ft (3090526 gal)	39,544	Meter 416430 cu ft (3130070 gal)
1,1-Dichloroethane		17.0		37.0		16.0		27 E		18/17*		21/24*		15.0		19.0
1,1-Dichloroethene		1.0		3.0		0.9 J		2.0		1/1*		1/2*		1.0		1.0
Vinyl Chloride		0.7J		1.0		0.5 J		ND		ND/0.8 J*		ND/ND*		0.6J		0.5 J
cis-1,2-Dichloroethene		0.4J		0.7J		ND		0.5 J		ND/0.3J*		0.5J/0.5J*		0.3J		0.3J
Chloroethane		0.7J		11.0		0.6J		2.0		ND/0.8 J*		ND/ND*		0.7J		2.0
Chloroform		ND		ND		2.0		ND		2/1*		ND/ND*		ND		ND
1,1,1-Trichloroethane								4.0		ND/ND*		0.8J/0.8J*		0.8J/0.8J*		2.0
Bromoform										16/16*		ND/ND*		ND		ND
Dibromomethane										ND/0.9J*		ND/ND*		ND		ND
Dibromochloromethane										3/2*		ND/ND*		ND		ND
Bromodichloromethane										0.7J/0.7J*		ND/ND*		ND		ND
Supersonic Speedway	PW-2							487,358				529,056				579,311
1,1-Dichloroethane		40.0		NS		NS		9.0		NS		ND		NS	25,127	5.0
1,1,1-Trichloroethane		52.0						14.0				1.0 J				18.0
1,1-Dichloroethene		10.0						3.0				ND				3.0
Vinyl Chloride		ND						ND				ND				ND
cis-1,2-Dichloroethene		3.0						ND				ND				ND
Chloroethane		2.0						ND				ND				ND
Chloroform		ND						0.5 JB				2.0				1.0
Methyl-t-butyl ether		2.0						ND				ND				0.9 J
Trichloroethane		3.0						ND				ND				ND
Toluene												0.2 J				ND
Guaranteed Irish	PW-4	185,850	9,330	195,180	52,570	247,750	34,600	282,350	37,180	319,530	24,060	343,590	20,450	364,040	24,990	389,030
1,1-Dichloroethane		11.0		5.0		11.0		8.0		11.0		10.0		10/10*		10/10*
1,1-Dichloroethene		0.5J		ND		0.6 J		0.6 J		0.9 J		ND		ND/0.8 J*		0.8 J/ ND*
Chloroethane		2.0		0.7J		2.0		2.0		2.0		ND		1/1*		0.9 J/ND*
Vinyl Chloride		ND		ND		0.7 J		0.7 J		ND		ND		0.7J/0.7J*		1.0 J/1*
Weldon House	PW-6	174,200 (May)	185,000	359,200			333,100	692,300				993,500			116,850	1,227,200
1,1-Dichloroethane		2/1		17		NS		19.0		NS		19.0		NS		8.0
1,1,1-Trichloroethane		ND		ND				ND				7.0				ND
1,1-Dichloroethene		ND		0.8J				ND				3.0				0.3 J
Vinyl Chloride		ND		ND				ND				ND				ND
cis-1,2-Dichloroethene		ND		ND				ND				ND				ND
Chloroethane		ND		1.0				3.0				ND				0.5 J
Tetrahydrofuran		440 E/540E		ND				ND				ND				ND

Blank or ND- non detect J- estimated, below IDL E- estimated,above calibration range
NS - Not sampled All Concentrations in ppb. *- Duplicate sample D- diluted result

Table 2b
Becker Electronics Site, Town of East Durham, NY
Raw Water Analytical Summary - 2001- 2004

Location/ COC	Well ID	Feb/May-01	6 Mo.Flow (gal)	Aug 01	6 Mo.Flow (gal)	Feb 02	6 Mo.Flow (gal)	Aug 02	6 Mo.Flow (gal)	Feb 03	6 Mo.Flow (gal)	Aug 03	6 Mo.Flow (gal)	Feb 04	6 Mo.Flow (gal)	Aug 04
Erin's Melody Inn	PW-7															
Chloroform		3.0		System		System		System		System		System		System		System
Bromodichloromethane		2.0		Demobed		Demobed		Demobed		Demobed		Demobed		Demobed		Demobed
Dibromochloromethane		1.0														
Van Tassal	PW-8															
1,1-Dichloroethane		ND		System		System		System		System		System		System		System
1,1,1-Trichloroethane		ND		Demobed		Demobed		Demobed		Demobed		Demobed		Demobed		Demobed
1,1-Dichloroethene		ND														
Darby's Pub	PW-9	811,940		965,070		1,087,420		1,237,910		1,361,650		1,504,380		1,630,510		1,733,610
			153,130		122,350		122,350		123,740		142,730		126,130		103,100	
		Changed Carbon both tanks		Changed Carbon both tanks		Changed Carbon both tanks										
1,1-Dichloroethane		20.0		2.0/2.0*		3.0/3.0*		0.7 J/0.7 J*		8.0		ND		0.6J		0.8 J
1,1,1-Trichloroethane		0.6J		2.0/2.0*		ND/0.3 J*		1/1*		ND		ND		0.7J		0.6 J
1,1-Dichloroethene		0.7J		ND/ND*		ND/ND*		ND		ND		ND		ND		ND
Trichloroethene				ND/0.6 J*		ND/0.2 J*		ND		ND		ND		0.4 J		0.4 J
Chloroform						ND/0.3 J*		ND		ND		ND		ND		ND
Methyl-t-butyl ether										0.8 J		ND		ND		ND
Leo Becker	PW-10	311,110						331,860				342,620				
1,1-Dichloroethane		10.0		NS		NS		ND		NS		4.0		NS		NS
1,1,1-Trichloroethane		ND						ND				ND				
1,1-Dichloroethene		0.7J						ND				ND				
Vinyl Chloride		ND						ND				ND				
cis-1,2-Dichloroethene		ND						ND				ND				
Chloroethane		0.7 J						ND				ND				
Brannan	PW-12															
Chloroform		0.4J		NS		NS		NS		NS		NS		NS		NS
1,1-Dichloroethane		ND														
Patrick McGuire	PW-13	10,360		22,410		37,410		49,750		59,330		68,890		82,540		95,910
			12,050		15,000		12,340		9,580		9,560		13,650		13,370	
1,1-Dichloroethane		210.0		10.0		190D		14.0		190 D		130 D		120 E		35 E
1,1,1-Trichloroethane		3.0		3.0		0.4 J		1.0		1.0		0.3 J		ND		1.0
1,1-Dichloroethene		19.0		2.0		17.0		2.0		20.0		16.0		14.0		6.0
Vinyl Chloride		7.0		ND		5.0		ND		8.0		4.0		5.0		2.0
cis-1,2-Dichloroethene		2.0		ND		1.0		ND		2.0		1.0		1.0		0.4 J
Chloroethane		9.0		ND		6.0		ND		8.0		3.0		2.0		ND
Trichloroethene		1.0		2.0		0.8 J		0.9 J		1.0		1.0		0.7 J		0.8 J

Blank or ND- non detect J- estimated, below fDL E- estimated,above calibration range
NS - Not sampled All Concentrations in ppb. *- Duplicate sample D- diluted result

Table 2b
Becker Electronics Site, Town of East Durham, New York
Raw Water Analytical Summary - 2005/2006

Location/ COC	Well ID	Mar 05		Aug-05		Feb-06		Aug-06
		6 Mo.Flow (gal)	6 Mo.Flow (gal)		6 Mo.Flow (gal)		6 Mo.Flow (gal)	
Keogh Cottages	PW-1			3,132,619		Meter broken		3,182,677
			19,068		Meter broken		33,535	
1,1-Dichloroethane		NS		21.0		24/24 *		32 D/32 D*
1,1-Dichloroethene				2.0		2/2 *		3/3*
Vinyl Chloride				0.9 J		2/2 *		1/2.0 *
cis-1,2-Dichloroethene				0.4 J		0.5 J/0.5 J*		0.5 J/0.5 J*
Chloroethane				0.8 J		1/1 *		1/1*
1,1,1-Trichloroethane				0.7 J				0.1 J/0.1 J*
Methylene Chloride				0.1 JB				0.2 J/0.2 J*
Chloromethane						0.5 J/0.7 J*		
Supersonic Speedway	PW-2			575,964				666,959
			46,908				40,740	
1,1-Dichloroethane		NS		43 D		NS		7.0
1,1,1-Trichloroethane				41 D				24.0
1,1-Dichloroethene				7.0				5.0
Vinyl Chloride				0.8 J				0.3 J
cis-1,2-Dichloroethene				2.0				0.2 J
Chloroethane				2.0				0.8 J
Chloroform				0.5 J				0.1 J
Trichloroethane				2.0				0.6 J
Toluene								
Guaranteed Irish	PW-4	398,630		426,950		438,740		450,530
	9,600		28,320		11,790		11,790	
1,1-Dichloroethane		20.0		12.0		13.0		16.0
1,1-Dichloroethene		2.0		0.9 J		1.0		1.0
Chloroethane		2.0		0.8 J		1.0		0.7 J
Vinyl Chloride		1.0		0.7 J		2.0		1 J
Chloromethane						0.7 J		
Weldon House	PW-6			1,416,600				1,605,400
			189,400				188,800	
1,1-Dichloroethane		NS		12.0		NS		7.0
1,1-Dichloroethene				0.7 J				0.5 J
Vinyl Chloride				0.1 J				
Chloroethane				0.8 J				0.5 J

Blank or ND- non detect
NS - Not sampled
J- estimated, below IDL
*- Duplicate sample
E- estimated,above calibration range
D- diluted result
All Concentrations in ppb.

Table 2b
Becker Electronics Site, Town of East Durham, New York
Raw Water Analytical Summary - 2005/2006

Location/ COC	Well ID	Mar 05		Aug-05		Feb-06		Aug-06	
		6 Mo.Flow (gal)		6 Mo.Flow (gal)		6 Mo.Flow (gal)		6 Mo.Flow (gal)	
Darby's Pub	PW-9		1,925,480		2,136,350		2,304,920		2,442,630
		191,870		210,870		168,570		137,710	
1,1-Dichloroethane			1/1*		0.6 J/0.6 J*		2.0		1.0
1,1,1-Trichloroethane			2/2*		0.6 J/0.5 J*		0.4 J		0.8 J
1,1-Dichloroethene			0.3 J/0.3 J*				0.2 J		0.1 J
Trichloroethene			0.5 J/0.4 J*		0.3 J/0.3 J*		0.3 J		0.6 J
Leo Becker	PW-10		Sampled 5/5/05		NS		NS		NS
			356,900						
		14,280							
1,1-Dichloroethane			12.0						
1,1-Dichloroethene			1 J						
Vinyl Chloride			0.8 J						
Chloroethane			0.5 J						
Patrick McGuire	PW-13		108,550		122,090		137,540		153,720
		12,640		13,540		15,450		16,180	
1,1-Dichloroethane			87 D		130 D		120 D		81 D
1,1,1-Trichloroethane			ND		0.3 J				0.2 J
1,1-Dichloroethene			23.0		11		19.0		16.0
Vinyl Chloride			8.0		2		12.0		5.0
cis-1,2-Dichloroethene			ND		0.8 J		1.0		0.8 J
Chloroethane			5.0		2		4.0		1.0
Trichloroethene			0.8 J		0.6 J		0.7 J		0.6 J

Blank or ND- non detect
NS - Not sampled
J- estimated, below IDL
*- Duplicate sample
E- estimated,above calibration range
D- diluted result
All Concentrations in ppb.

TABLE 3
Becker Electronics Site,Town of East Durham, NY
Current Round Analytical Summary

Sampling Date: 8/17/06

Compound	PW1-R	PW1-I	PW1-F	PW2-R	PW2-I	PW2-F	PW4-R	PW4-I	PW4-F	PW6-R	PW6-I	PW6-F	PW9-R	PW9-I	PW9-F	PW13-R	PW13-I	PW13-F
1,1- Dichloroethane	32 D/32 D*			7	0.8 J		16			7			1	0.9 J		81 D		
1,1- Dichloroethene	3/3*			5	0.3 J		1			0.5 J			0.1 J			16		
1,1,1- Trichloroethane	0.1 J/0.1 J*			24	1								0.8 J	0.1 J		0.2 J		
Chloroethane	1 / 1*	2		0.8 J	0.5 J	0.4 J	0.7 J	2		0.5 J	0.9 J					1		
Chloroform				0.1 J	0.1 J													
cis- 1,2- Dichloroethene	0.5 J/0.5 J*			0.2 J												0.8 J		
Methylene Chloride	0.2 J/0.2 J*	0.2 JB																
Methyl-t-butyl ether					0.7 J													
Toluene																		
Trichloroethene				0.6 J									0.6 J			0.6 J		
Vinyl chloride	1 / 2*			0.3 J			1 J									5		

J = estimated
E= estimated above calibration range.
R= raw water sample
I= intermediate water sample
F= final water sample
B= detected in lab as a contaminant.
All concentrations are in ug/L
ND or blank cell indicates result below detection limit
* = duplicate sample
D= diluted sample
Only detected analytes are shown in this table. Refer to Table 4 for a comprehensive list of analytes included in EPA Method 524.2.

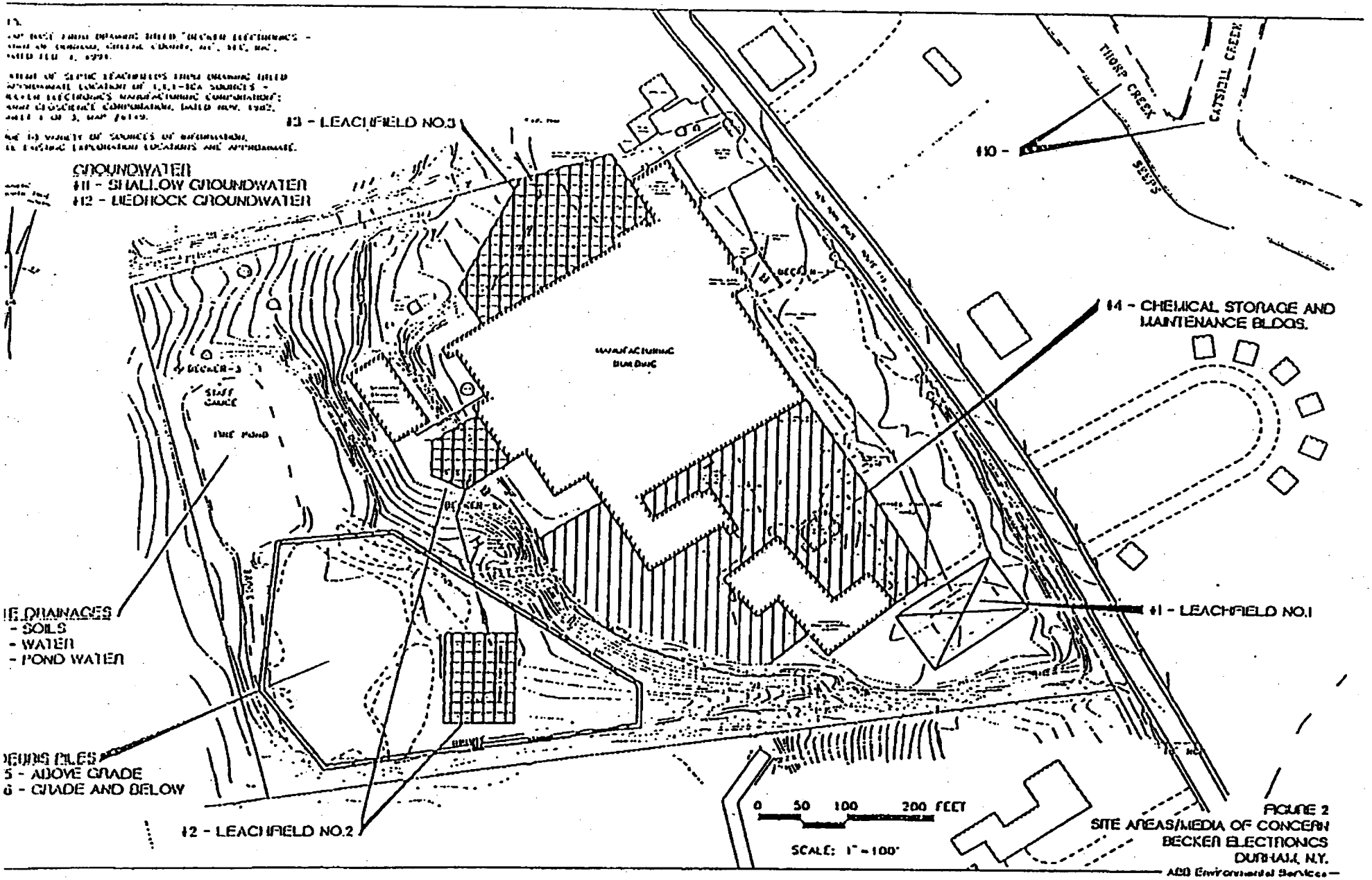


FIGURE 2
SITE AREAS/MEDIA OF CONCERN
BECKER ELECTRONICS
DURHAM, N.Y.
ABB Environmental Services

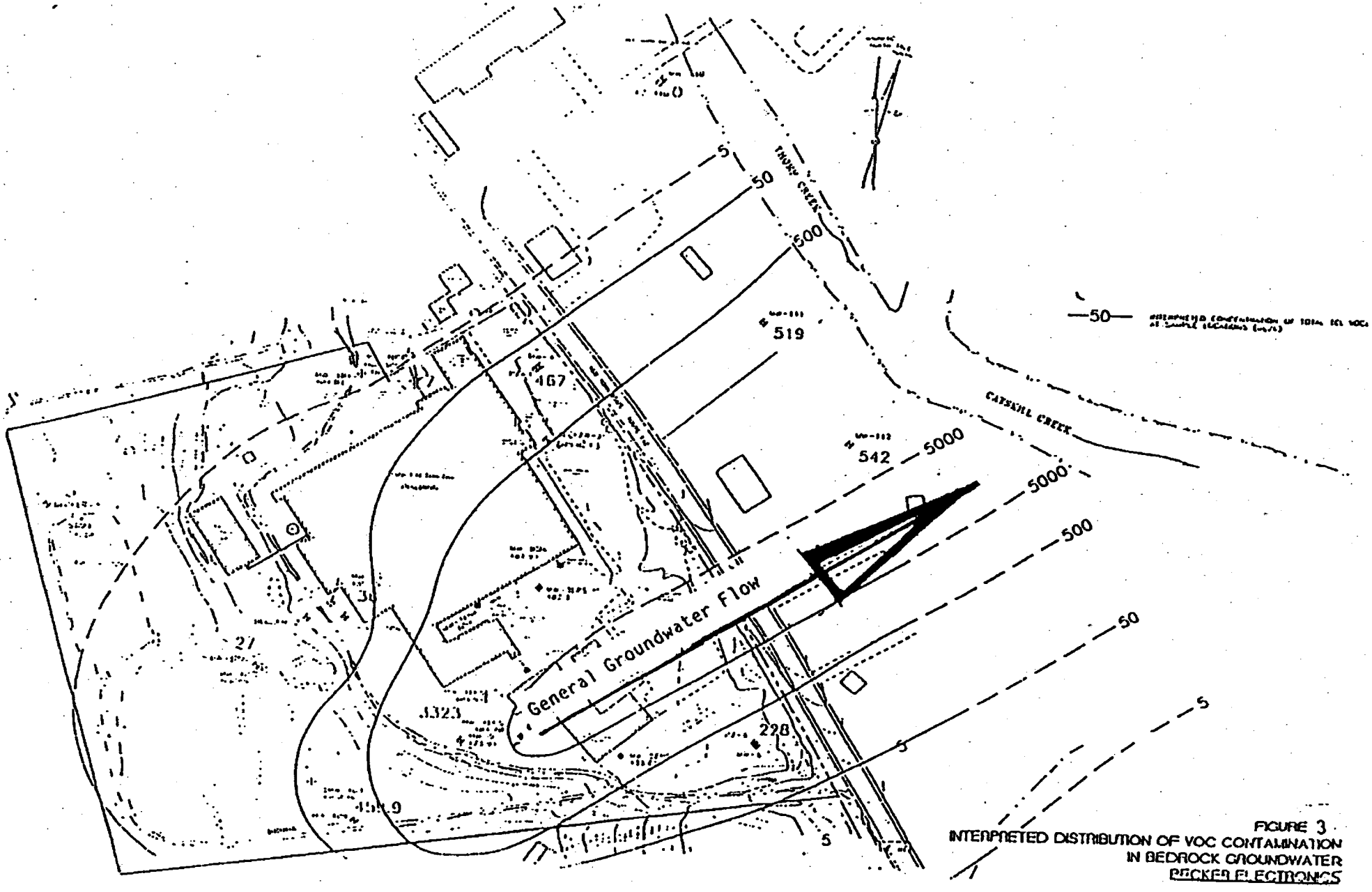
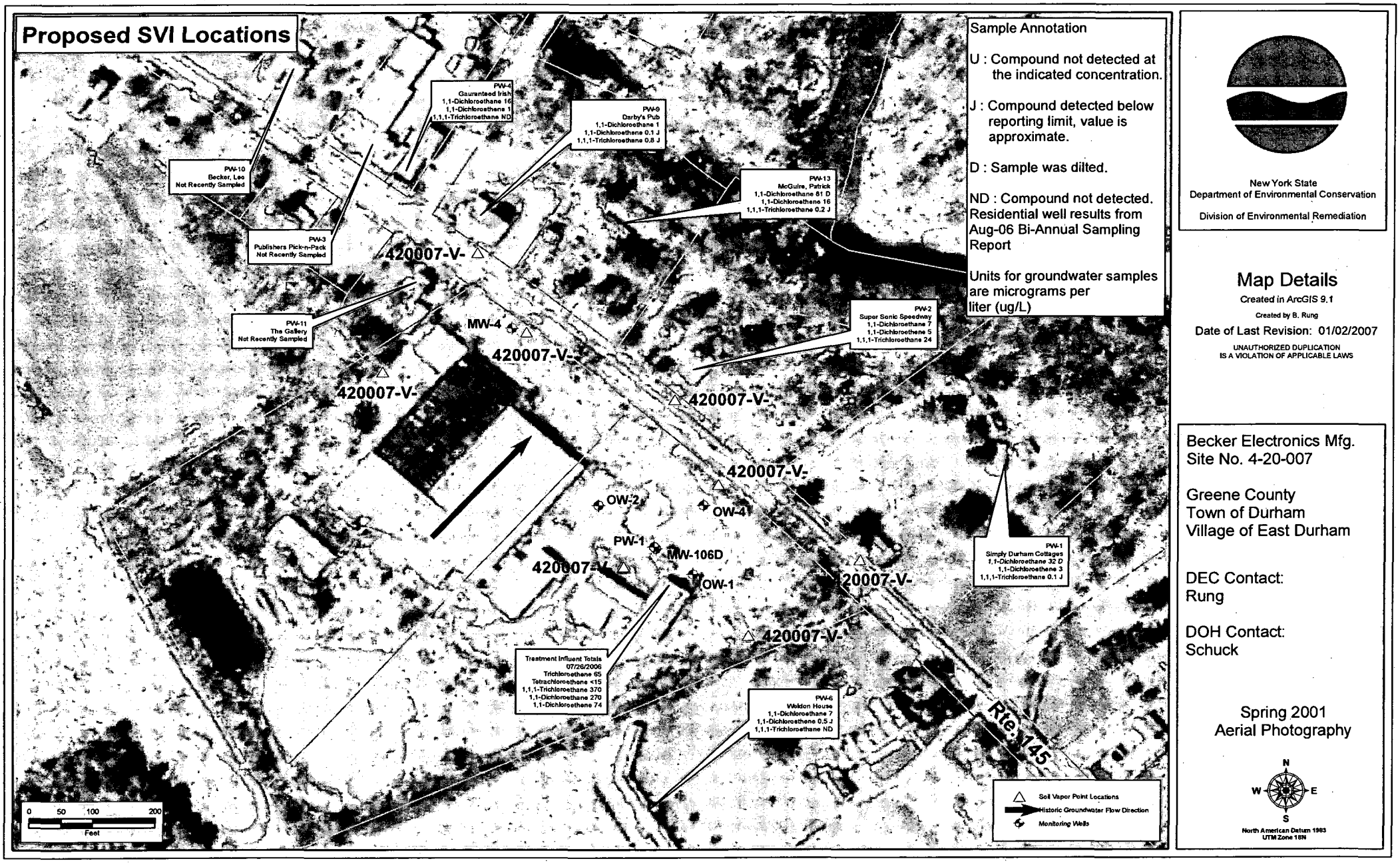


FIGURE 3
INTERPRETED DISTRIBUTION OF VOC CONTAMINATION
IN BEDROCK GROUNDWATER
BECKER ELECTRONICS


Proposed SVI Locations
PW-4
Gauranteed Irish
1,1-Dichloroethane 16
1,1-Dichloroethene 1
1,1,1-Trichloroethane ND
PW-9
Darby's Pub
1,1-Dichloroethane 1
1,1-Dichloroethene 0.1 J
1,1,1-Trichloroethane 0.8 J
PW-10
Becker, Leo
Not Recently Sampled
PW-13
McGuire, Patrick
1,1-Dichloroethane 81 D
1,1-Dichloroethene 16
1,1,1-Trichloroethane 0.2 J
PW-3
Publishers Pick-n-Pack
Not Recently Sampled
420007-V-
PW-11
The Gallery
Not Recently Sampled
MW-4
PW-2
Super Sonic Speedway
1,1-Dichloroethane 7
1,1-Dichloroethene 5
1,1,1-Trichloroethane 24
420007-V-
420007-V-
420007-V-
420007-V-
OW-2
OW-4
PW-1
MW-106D
OW-1
420007-V-
420007-V-
420007-V-
PW-1
Simply Durham Cottages
1,1-Dichloroethane 32 D
1,1-Dichloroethene 3
1,1,1-Trichloroethane 0.1 J
Treatment Influent Totals
07/26/2006
Trichloroethene 65
Tetrachloroethene <15
1,1,1-Trichloroethane 370
1,1-Dichloroethane 270
1,1-Dichloroethene 74
PW-6
Weldon House
1,1-Dichloroethane 7
1,1-Dichloroethene 0.5 J
1,1,1-Trichloroethane ND
Rte. 145
0 50 100 200
Feet
Soil Vapor Point Locations
Historic Groundwater Flow Direction
Monitoring Wells
Sample Annotation
U : Compound not detected at the indicated concentration.
J : Compound detected below reporting limit, value is approximate.
D : Sample was dilted.
ND : Compound not detected. Residential well results from Aug-06 Bi-Annual Sampling Report
Units for groundwater samples are micrograms per liter (ug/L)
New York State
Department of Environmental Conservation
Division of Environmental Remediation
Map Details
Created in ArcGIS 9.1
Created by B. Rung
Date of Last Revision: 01/02/2007
UNAUTHORIZED DUPLICATION
IS A VIOLATION OF APPLICABLE LAWS
Becker Electronics Mfg.
Site No. 4-20-007
Greene County
Town of Durham
Village of East Durham
DEC Contact:
Rung
DOH Contact:
Schuck
Spring 2001
Aerial Photography
N
W
E
S
North American Datum 1983
UTM Zone 18N

Becker Electronics Manufacturing
Site No. 420007

Proposed Sampling Locations for Soil Vapor Intrusion Evaluation

Sample I.D.[1]	GW Depth	Nearby MW DTW[2] (feet)	Measurement Date	Soil Vapor Sample Depth[3]		Sample Rationale[5]
				Shallow (~8' or less)	Deep (~1' above WT)[4]	
420007-V-	Shallow	MW-106S				Centered in area of former Chemical Storage Building, identified as contaminant source area. GW Grab, shallow soil vapor, and deep soil vapor (if appropriate).
420007-V-	Shallow	OW-4				Downgradient of contaminant source area and at edge of pumping well's influence. GW Grab, shallow soil vapor, and deep soil vapor (if appropriate).
420007-V-	Shallow	420007-GW-				Approaching outer (south eastern) limits of plume but upgradient of Simply Durham Cottages. GW Grab, shallow soil vapor, and deep soil vapor (if appropriate).
420007-V-	Shallow	420007-GW-				Downgradient of contaminant source area, before encountering Super Sonic Speedway. GW Grab, shallow soil vapor, and deep soil vapor (if appropriate).
420007-V-	Shallow	420007-GW-				Approaching outer (north) limits of plume but upgradient of Darby's Pub. GW Grab, shallow soil vapor, and deep soil vapor (if appropriate).
420007-V-	NA	MW-4				Upgradient of McGuire residence but downgradient of black roofed portion of Becker Facility. Interested in PW-13's historically high 1,1 DCA results. GW Grab, shallow soil vapor, and deep soil vapor (if appropriate).

Notes:
1. The Sample ID will be assigned in the field.
2. Depth to water (DTW).
3. In the near vicinity, a pair of soil vapor probes (one at ~8 feet, the second ~1 foot above the water table).
4. From observation of the DTW some locations may only be able to be sampled for shallow soil vapor.
5. Each sample location will consist of a shallow (and deep where possible) soil vapor sample and gw grab sampling.
   Where structure sampling is specified, a basement sub-slab, basement indoor air, first floor indoor air, and outside ambient air sample will be collected in accordance with the February 2005 NYSDOH guidance. Additionally, water samples may be required at some locations.

SOIL VAPOR INTRUSION EVALUATION

SAMPLE SUMMARY TABLE

Sample Type		Number	Notes
Direct Push Groundwater Grab Samples *	=	6	
Existing Monitoring Well Samples *	=	2	Pending MW construction info.
Other Water Samples *	=	0	
Direct Push Soil Vapor Implants **	=	12	Includes shallow & deep.
Basement Sub-Slab Samples **	=	0	Hammer drill, sealant, etc.
Indoor Air and Ambient Air Samples ***	=	0	Basement, 1st floor, outside air.
Other Air Samples	=	0	

Total Water Samples	=	6	(plus QA/QC samples)
Total Air Samples	=	12	(plus QA/QC samples)

* All water samples must be analyzed by an approved ELAP certified lab for volatiles using EPA Method 8260.

** All soil vapor and sub-slab air samples must be analyzed by an approved ELAP certified lab for volatiles using EPA Method TO-15, and a minimum reporting limit of 1 microgram per cubic m (ug/m3) must be achieved for all analytes and all results must be reported in micrograms per cubic meter.

*** All indoor air and ambient outdoor air samples must be analyzed by an approved ELAP certified lab for volatiles using EPA Method TO-15 with SIMS to achieve a minimum reporting limit of 0.25 ug/m3 for TCE and 1 ug/m3 for all other analytes. All results must be reported in ug/m3.