

WORK PLAN

SUPPLEMENTAL REMEDIAL INVESTIGATION

Winatic Corporation
409 Commerce Road
Vestal, New York
Site # V00138

September 8, 2006

Prepared For:

The New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
Region 7, Syracuse, New York
Attn: Karen Cahill

Prepared By:

Buck Engineering, LLC
P.O. Box 5150
3821 Buck Drive
Cortland, New York 13045
607-753-3403



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INTRODUCTION

This work plan is being submitted to satisfy requirements as set forth by the New York State Department of Environmental Conservation (NYSDEC) in their letter to Winatic dated February 8, 2005 and in subsequent communications. Previous studies (Appendix A) have confirmed that elevated concentrations of trichloroethene (TCE) are present in dissolved (aqueous) phase and vapor phase beneath the Winatic and adjoining properties.

OVERVIEW AND STATEMENT OF PURPOSE

The New York State Department of Environmental Conservation has requested that the following items be addressed:

1. Investigate potential remaining TCE source in soil beneath the slab of the Winatic building and outside the building in the area of the prior soil removal.
2. Install a bedrock monitoring well on the northern portion of the Winatic property in order to investigate whether dissolved phase TCE has migrated into the bedrock aquifer.
3. Installation of an overburden monitoring well behind (west of) the Fine Host building to evaluate the extent of the dissolved-phase TCE plume.

SITE HISTORY

The site was first developed in 1967 when the original portion of the building was constructed. An addition at the north end was constructed in 1969. From 1967 through 1999, coils, transformers and printed circuit boards were manufactured at the facility. Production ceased in 1999. The industrial solvent Trichloroethene (TCE) was used for many years at the site. Waste TCE was reportedly discarded onto the ground surface along the north side of the building during the occupancy of a former tenant.

During the 1990's Buck Engineering conducted several investigations at the site. These investigations included soil borings and the installation of three groundwater monitoring wells. Solvent contaminated soils were excavated from the north end of the site in 1999 in an effort to remove the source area. Winatic Corporation entered into a Voluntary Cleanup Agreement with the NYSDEC in 1999. In 2001 Winatic designed and installed a groundwater recovery and treatment system (activated carbon) along the north side of the building. The system was not designed to operate during the winter months until November of 2004 at which time the system was modified for all season use.

ACTION ITEM #1

INVESTIGATE SOIL AT NORTH END OF WINATIC BUILDING AND BENEATH THE SLAB

Methodology: Previous studies suggest that a potential source area of TCE may be located beneath the slab at the north end of the Winatic building. Accordingly, we propose to obtain soil samples, and groundwater, if available, from three locations beneath the slab at the north end of the building interior. Samples will be obtained by coring through the concrete slab and driving split-spoon sampler or macro-core into the sub-grade using an Acker Model AMC-2, lightweight, hand-portable, motorized cat head with an aluminum tripod derrick. Borings would be advanced to depths of approximately 8 to 10 feet below grade.



Approximate sampling locations are shown on Figure 2. Exact locations will be chosen in the field based on overhead clearance issues inside the building. Soil samples will be obtained over the entire depth of the borings. Each sample will be placed in a zip-lock bag and agitated prior to obtaining a "headspace" reading using an HNU Systems PI 101 Photoionization detector. Three soil, and if available, three groundwater samples would be collected and analyzed for VOC's by USEPA Method 8260 (Table 2). Groundwater samples would be obtained by installing temporary (one-time only) monitoring points in the borings. Groundwater will be collected using a peristaltic pump or by hand bailing if the pump is ineffective.

Soil samples will also be obtained at 4 to 6 locations in the vicinity of the prior soil removal along the north exterior wall of the Winatic building. Soil samples will be obtained by driving a split-barrel soil sampler to depths of approximately 15 to 25 feet below grade. Particular attention will be paid to soil samples obtained at depths of greater than 12 to 15 feet below grade, as this was the limit of prior excavation and removal. Headspace readings will be obtained as described above. Soil samples (beyond the depth of the original excavation) displaying the highest HNU readings will be analyzed for VOC's by USEPA Method 8260 (Table 2).

ACTION ITEM #2

INSTALLATION OF GROUNDWATER MONITORING WELL IN BEDROCK

No information regarding groundwater quality in the bedrock aquifer beneath the Winatic property currently exists. In order to assess whether dissolved phase VOC contamination from the overburden aquifer has migrated into the underling bedrock aquifer, a groundwater monitoring well will be installed and screened in the bedrock. The well will be installed on the northwest portion of Winatic property as shown on Figure 3.

Methodology: Groundwater contours of the bedrock aquifer beneath the adjacent National Pipe & Plastics property suggest a general northerly flow of groundwater. Bedrock is indicated to lie at approximately 50 to 70 feet below grade and to consist of fractured shale and siltstone. The overburden will be drilled using a 6-inch diameter rotary drill bit. Soil samples will be obtained over the entire interval by driving a 2-foot long, split-barrel soil sampler ahead of the drill bit. Soil samples will be used to provide a vertical profile of the overburden. Upon encountering competent bedrock, a 4-inch steel casing will be set two feet into the bedrock. After the steel casing is seated into the bedrock, the boring will be continued approximately 50 feet further using a 4-inch diameter rotary drill bit (estimated total depth of 100 to 120 feet). A 2-inch diameter, schedule-40 PVC monitoring well will then be installed.

A slotted PVC well screen will be placed in the interval from the bottom of the boring to approximately 5 feet below the bedrock-overburden interface. The screened section of PVC will be coupled to a solid riser and brought to the surface. An inert silica sand pack will be placed into the annular space between the well screen and the boring wall. The sand will be brought to 2 feet above the screened interval. Three feet of bentonite pellets will be placed above the sand pack and hydrated. The cased bedrock well construction as described above is designed to minimize the potential for TCE contaminated groundwater to be transported to the bedrock aquifer during and after construction of the well. The well will be developed by surging and bailing (or pumping) until turbidity stabilizes or is reduced to less than 50 ntu.

The location of the new well will be located horizontally and vertically and placed on a site diagram along with the existing groundwater monitoring wells.



Drill cuttings generated during well installation will be field screened with an HNU Systems PI 101 Photoionization Detector (PID). Cuttings displaying readings above 5 parts per million will be contained in 55-gallon steel drums and stored on site for later disposal. The groundwater samples will be collected in 40 ml glass vials, placed in an iced cooler and transported to Buck Environmental Laboratories, Inc. of Cortland, New York and analyzed for volatile organic compounds by USEPA Method 8260.

ACTION ITEM #3

INSTALLATION OF OVERBURDEN MONITORING WELL WEST OF FINE-HOST BUILDING

In order to evaluate whether the dissolved-phase TCE plume (in the overburden aquifer) has migrated beyond the Fine-Host building in a northwesterly direction, one overburden monitoring well will be installed along the west side of the building as approximately shown on Figure 3.

Methodology: A truck-mounted, Geoprobe unit will advance a soil sampler into the subsurface, at four-foot intervals, to depth of approximately 15 feet below grade. The Geoprobe, also known as a "Direct Push Probe", hydraulically advances holes utilizing a truck-mounted Geoprobe 5400 probe driven by a hydraulic hammer that is capable of delivering 1,800 blows per minute. The probe hole will be advanced using a four-foot long, 2.5-inch diameter steel tube soil sampler with acetate liners for the purpose of collecting a soil profile. Continuous soil cores will be obtained and reviewed for visual and olfactory evidence of contamination as well as their soil characteristics. Soil samples will be field screened for volatile organic compounds over the depth of the borings using an HNU Systems PI 101 Photoionization Detector (PID). The PID will be used to monitor the breathing zone of on-site workers during drilling and sampling.

A groundwater monitoring well will be installed by emplacing a 1-inch diameter, slotted PVC well screen from the bottom of the boring to 3 feet below grade. A solid PVC riser will be coupled to the screened segment and brought to grade. A silica sand pack will be placed into the annulus between the wall of the hole and the PVC screen. The purpose of the sand pack is to minimize infiltration of silt and fines into the PVC well during sample collection. The well will be finished by placing 1 foot of bentonite clay over the sand pack and finishing the well at the surface by cementing a flush-mounted curb box over the PVC riser. The location of the new well will be located horizontally and vertically and placed on a site diagram along with the existing groundwater monitoring wells. The well will be developed by pumping with a peristaltic pump until turbidity stabilizes or is reduced to less than 50 ntu. Sampling will be conducted within 2 hours of purging.

QUALITY ASSURANCE/QUALITY CONTROL

Field activities that could compromise the quality of samples (such as fueling vehicles or using permanent marking pens) will be avoided. Down-hole equipment (such as split-barrel samplers, water level indicators, etc.) will be decontaminated with liquinox detergent and deionized water prior to use and between holes.



Samples will be analyzed by Buck Environmental Labs, Inc. of Cortland, NY (ELAP # 10795, Table 2 and Appendix C). The laboratory reporting level will be NYSDEC ASP Category B Deliverables. The analytical data package will be evaluated by a third-party data validator, who is independent of Buck Environmental Labs, Inc. The data validator will provide a Data Usability Summary Report (DUSR).

COMMUNITY AIR MONITORING PROGRAM

Community air monitoring as specified in Appendix D of the NYSDEC Voluntary Cleanup Program Guide, (Draft) May 22, 2002 will not be required. Workspace air monitoring will take place during the drilling of the bedrock monitoring well. VOC's will be monitored in and around the work area. VOC monitoring will be accomplished using an RAE Systems ppb RAE, which is capable of detecting VOC's as low as 1 ppb. If instantaneous ambient air concentrations of total VOC's in the worker breathing zone exceed 5 parts per million above background levels, work will be temporarily halted until ambient levels decrease below 5 ppm over background.

REPORTING

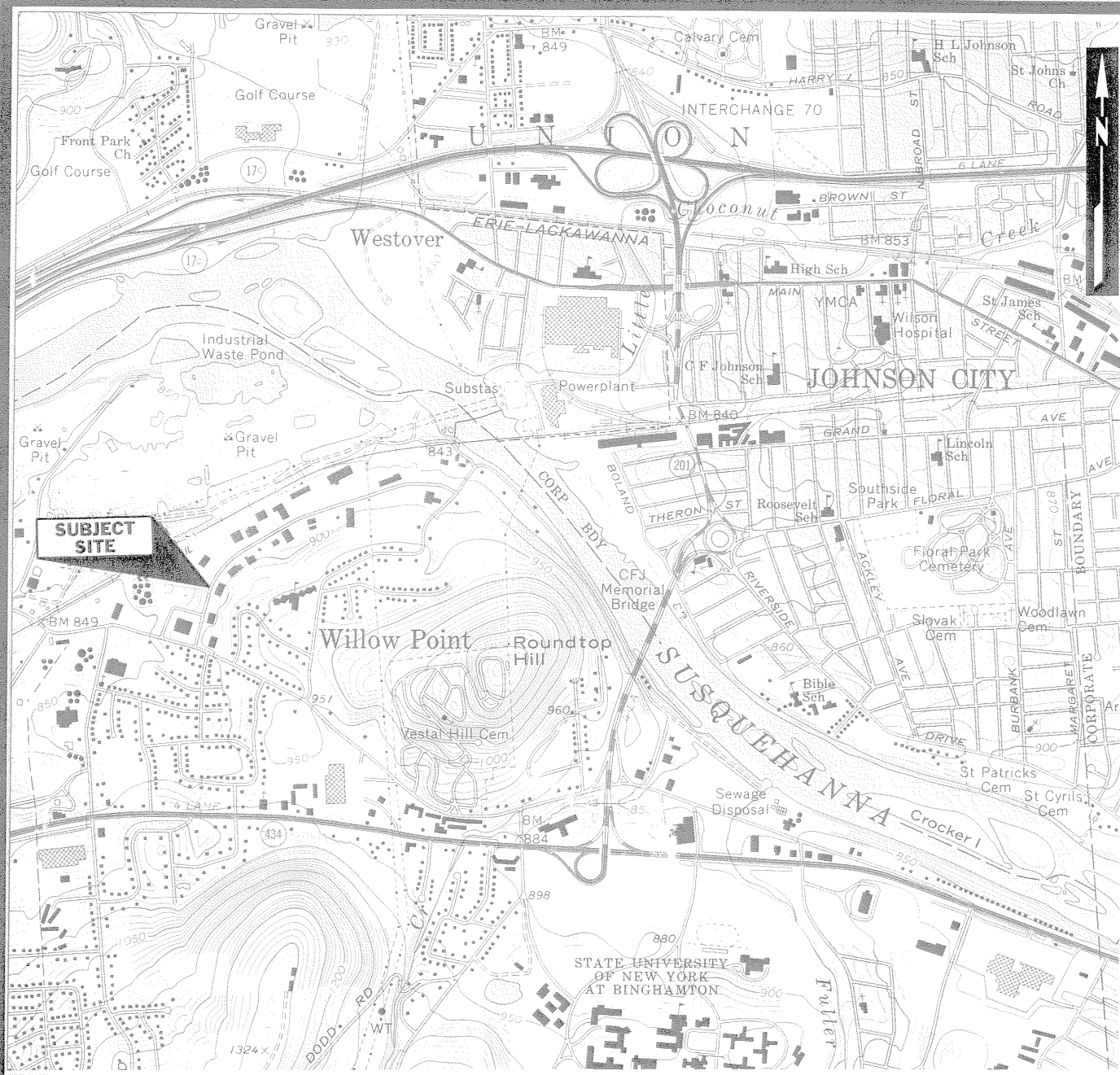
A final report to include a Qualitative Human Health Exposure Assessment will be prepared approximately ten weeks after completion of all field work. Finalized laboratory analytical data can be provided as they become available.

G:\Andy\Winatic\Proposals\Work Plans\WP_Sep_06



FIGURES





BUCK ENGINEERING, LLC

CONSULTING ENVIRONMENTAL ENGINEERS

3821 BUCK DRIVE, CORTLAND, N.Y. 13045-5150 PHONE: (607) 753-3403

Scale: 1" = 2000'

Figure No: 1

Site Location Map

Quadrangle: Binghamton West,
NY

Project:

Former Winatic Facility

Prepared By: AK

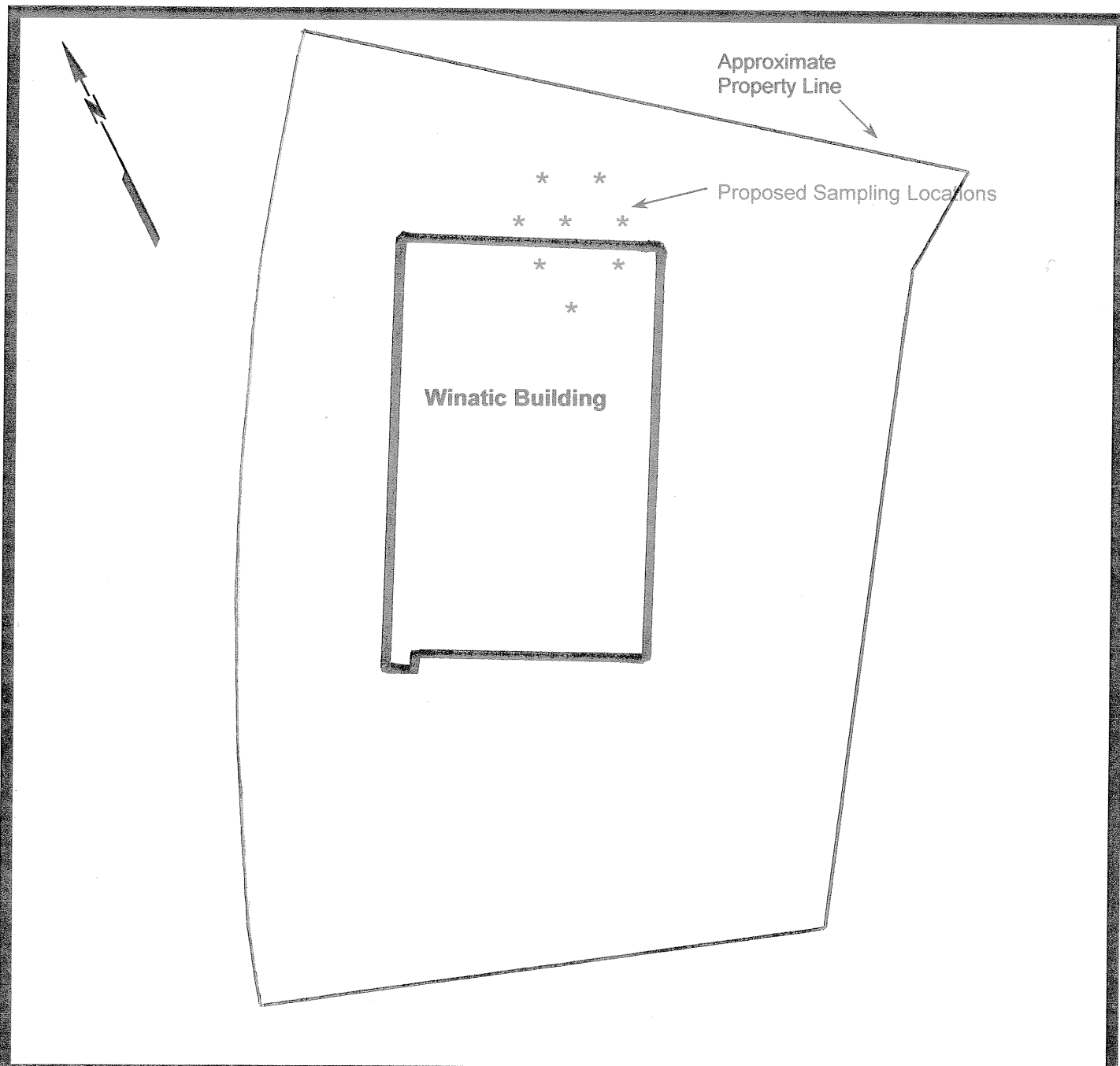
Client:

Winatic
PO Box 18802
Clearwater, FL 33762

Project Location:

409 Commerce Road
Vestal, NY
(Broome County)





BUCK ENGINEERING, LLC

CONSULTING ENVIRONMENTAL ENGINEERS
3821 BUCK DRIVE, CORTLAND, N.Y. 13045-5150

Approximate Scale: 1" = 58'

Figure No: 2 Proposed sub-slab and exterior
soil sampling locations

Date: May, 2006

Project: Winatic Additional Investigation

Prepared By: AK

Client: Winatic Corporation
PO Box 18802
Clearwater, FL 33762

Project Location:
409 Commerce Road
Vestal, NY
(Broome County)

Basemap:

Plot Plan Provided by the Town of
Vestal.



BUCK ENGINEERING, LLC
CONSULTING ENVIRONMENTAL ENGINEERS
 3821 BUCK DRIVE, CORTLAND, NY 13045

Approx. Scale: 1" = 130'

Figure No. 3: NYS GIS Aerial photography with site data overlay.

Date: May 2006

Legend:

- Proposed overburden well
- Proposed bedrock well

Project: Winatic Additional Investigation

Prepared by: AK

Client: Winatic Corporation
 PO Box 18802
 Clearwater, FL 33762

Project Location:
 409 Commerce Rd
 Vestal, NY



TABLES



WINATIC: TABLE 1

SUPPLEMENTAL INVESTIGATION

WORK PLAN SUBMITTED ON MAY 16, 2006

PROJECT ORGANIZATION AND RESPONSIBILITIES

NAME	EMPLOYER	TITLE	PROJECT RESPONSIBILITIES
John H. Buck, P. E.	Buck Engineering/ Buck Environmental Labs	President	Project direction and Senior Review
Andrew Korik, CCM	Buck Engineering, LLC	Project Manager	Management and coordination of project. Field sampling
Eric Monsen	Buck Environmental Labs, Inc.	Industrial Hygienist/Geologist	Supervision of field sampling
Peter Indick	Buck Environmental Labs, Inc.	Chemist/ Quality Assurance Officer	Assure laboratory methods and deliverables are in compliance with NYSDOH ELAP CLP and ASP protocols
Jim Baldwin	DataVal, Inc	Chemist	Data Usability Summary Report

WINATIC: TABLE 2

SUPPLEMENTAL INVESTIGATION

WORK PLAN SUBMITTED ON MAY 16, 2006

SAMPLE COLLECTION CHART

<u>Location</u>	<u>Type of Sample</u>	<u>Matrix</u>	<u>Number of Samples</u>	<u>Analysis</u>
Winatic Building	Sub-slab	Soil	3	USEPA 8260
Winatic Building	Sub-slab	Water	3	USEPA 8260
Winatic north end	Soil boring	Soil	5	USEPA 8260
Winatic bedrock well	Groundwater	Water	1	USEPA 8260
Fine-Host	Groundwater	Water	1	USEPA 8260
SAMPLES:		Water	5	USEPA 8260 (Full list)
		Soil	8	USEPA 8260 (Full list)
QA/QC SAMPLES:		Water	1	Replicate
		Water	1	MS/MSD
		Water	1	Trip Blanks
		Soil	1	Replicate
TOTAL SAMPLES:		Water	8	
		Soil	9	

NOTES: Deliverables protocol is NYSDEC ASP Category B

APPENDIX A

PRIOR GROUNDWATER SAMPLING AND ANALYTICAL DATA



TABLE 1
MONITORING WELLS
LABORATORY ANALYTICAL SUMMARY

WINATIC
409 COMMERCE ROAD
VESTAL NEW YORK

Sampling Date	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-15
11/09/95	3	921	54				
01/08/96	148	1,418	755				
04/14/98	75	2,350	1,850				
10/15/99	Soil Excavation						
11/19/99	NS	NS	1,200				
01/05/00	130	2,500	14				
05/11/00	28	3,205	3,000				
07/06/00	19	2,500	4,100				
09/07/00	48	1,000	1,300				
11/10/00	49	1,100	1,000				
01/11/01	26	1,200	890				
03/14/01	27	1,300	730				
05/17/01	27	15,360	1,400				
06/01/01	NS	14,000	NS				
07/25/01	22	1,970	1,310				
10/22/01	78	23,000	1,727				
04/01/02	43	1,700	10,440				
08/06/02	49	990	870				
10/04/02	67	680	670				
10/18/02	56	622	541				
11/08/02	48	1,001	1,027				
03/10/03	54	621	1,203				
05/16/03	30	1,106	2,204				
08/11/03	5.4	484	1,303				
11/07/03	23	692	713				
02/23/04	15	805	1,902				
05/20/04	13	312	1,204				
08/20/04	1	1,202	1,602				
09/02/04	NS	NS	NS	1,200	30	3,600	53
11/19/04	1.9	781	1,300	1,003	50	5,503	56
02/24/05	4.3	342	792	892	22	840	45
04/20/05	2.7	720	800	890	35	1,400	49
07/15/05	3.4	670	680	1,000	61	DRY	36
11/03/05	2.0	800	660	1,100	22	1,200	50
01/27/06	4.5	370	670	900	12	1,200	50
04/27/06	ND	220	540	780	38	1,600	39

Analytical method is full 8260

MW-4, MW-5 and MW-6 Installed on 8/26/04

Results are sum totals of all analytes in parts per billion (micrograms/liter)

NS – Not sampled

ND – Not detected

APPENDIX B

RESUMES OF KEY PERSONNEL



BUCK ENGINEERING

EMPLOYEE CREDENTIALS INFORMATION

Name: John H. Buck, P.E.

Position: Principal Engineer

Education: Bachelor of Science Degree
Syracuse University 1971
Syracuse New York

Master of Business Administration
Syracuse University 1974

Master of Science in Civil and Environmental Engineering
Cornell University 1985
Ithaca, New York

Other

Qualifications: Laboratory Director - New York State Department of Health -Environmental
Laboratory Approval Program (10795)
New York State Licensed Professional Engineer (LN 055460) with over 20 years
experience as a consulting civil and environmental engineer

Related

Occupational

Experience: Professor of Technology and Engineering Science
Tompkins Cortland County Community College - 1975-1986
Laboratory Director - New York State Department of Health Approved
Environmental Laboratory - 1986 to present
Instructor - New York State Department of Health Water Treatment Plant
NYSDOH Operator Training Program (A, B, C, and D Grades) - 1988 to
present
Project Director for Phase I, II and III Environmental Site Assessments

Member: NYSAAEL (NYS Association of Approved Environmental Laboratories)
NYSSPE (New York State Society of Professional Engineers)
NAFE (National Academy of Forensic Engineers)
ASTM (American Society of Testing and Materials)

BUCK ENGINEERING

EMPLOYEE CREDENTIALS INFORMATION

Name: Andrew G. Korik

Position: Project Manager/Environmental Scientist

Education: Bachelor of Science Degree in Atmospheric Science
Cornell University 1985, Ithaca, New York

Graduate Program in Environmental Science
State University of New York College of Environmental Science and Forestry,
Syracuse, NY, 2005-present

Additional Training:

Treatment Technology For Contaminated Ground Water - NGWA
Hazardous Materials Incident Command Course
OSHA 40-Hour Health and Safety Training Course for Haz. Waste Operations

**Related
Occupational**

Experience: Andrew Korik is an environmental scientist with over 20 years of experience that includes Phase I and II environmental site assessments, hydrogeological investigations, landfill permitting/sampling/closure, RI/FS projects, soil and groundwater remediation, soil vapor intrusion surveys and atmospheric studies.

United States Air Force, Scott AFB, Illinois 1985-1988

Weather Officer/Environmental Analyst

Dames & Moore, Liverpool, New York 1988 to 1991

Group Leader – Environmental Sciences

Galson Corporation, East Syracuse, New York 1991-1992

Project Meteorologist

Environmental Products & Services, Syracuse, New York 1992-1995

Environmental Scientist

Vanguard Environmental Consulting, Moravia, New York 1995-2000

Owner and Principal Consultant

**Current
Responsibilities:**

Environmental Site Assessments and Transaction Screens, Subsurface
Investigation/Remediation, Soil Vapor Intrusion Studies

Member: American Institute of Professional Geologists (AIPG)
New York State Council of Professional Geologists (NYSCPG)
American Meteorological Society (AMS)

BUCK ENGINEERING

EMPLOYEE CREDENTIALS INFORMATION

Name: **Eric H. Monsen**

Position: **Geologist/Industrial Hygienist**

Education:

Associate of Arts and Science Degree
Suffolk County Community College - 1986
Selden, New York

Bachelor of Arts Degree
Geology
State University of New York at Plattsburgh 1988
Plattsburgh, New York

Related Occupational Experience:

Buck Environmental Laboratories, Inc.
Cortland, New York
December 1991 to present

TAKA Analytical Services
Northport, New York
July 1988 to September 1991

Special Training:

OSHA 40 hour Hazardous Waste Operations and Emergency Response - 1992
Ground Water & Vadose Zone Monitoring & Sampling Technology (ASTM) - 1989
Sampling and Evaluation of Airborne Asbestos Dust - NIOSH 582 Equivalency -1988
Inspecting Buildings for Asbestos Containing Materials (AHERA) - 1988
Practices and Procedures for Asbestos Control-Worker/Supervisor - 1988
Investigating and Mitigating Microbiological Contamination in Buildings - 1994

Current Responsibilities:

Supervision of field personnel at hazardous waste sites, landfills, excavation sites, and asbestos abatement projects.
Laboratory Chemical Hygiene Officer.
Industrial Hygiene Investigations including indoor air quality, stack emissions, data interpretation, and report preparation.
Monitoring well installation, development, and sampling.
Operation, calibration, and maintenance of field instrumentation.

BUCK ENVIRONMENTAL LABORATORIES, INC.
EMPLOYEE CREDENTIALS INFORMATION

Name: Peter A. Indick

Position: GC/MS and GC Volatiles Section Manager

Education: MBA Program
LeMoyne College,
Syracuse, NY

Bachelor Of Science
SUNY College of Environmental Science and Forestry - 1989
Syracuse, New York.

Associate Of Science
North Country Community College - 1986
Saranac Lake, New York.

Special Training: Quality Assurance in Environmental Monitoring, NYAAEL

Capillary Chromatography Seminar, Restek Corporation, Albany, N.Y.

Interpretation of Mass Spectra, Hewlett Packard Analytical Education

HP5970 Troubleshooting Seminar, Hewlett Packard, Rochester, New York

Quality Awareness Training, Onondaga Community College

Charles Hobbs Time Management Training, Galson Corporation

**Related Occupational
Experience:**

Buck Environmental Laboratories, Inc.
Cortland, New York June 1992 to present

Galson Laboratories
East Syracuse, NY 1989-1992

Current Responsibilities:

Manage GC/MS and GC Volatiles laboratory
Supervise, train personnel
Develop QA/QC standards
Manage Unix based Chemstation GC/MS operating system

Member: American Chemical Society

APPENDIX C

NYSDOH ELAP CERTIFICATION



NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Antonia C. Novello, M.D., M.P.H., Dr.P.H.



Expires 12:01 AM April 01, 2007
Issued April 1, 2006

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. JOHN H. BUCK
BUCK ENVIRONMENTAL LABORATORIES INC
3821 BUCK DRIVE
CORTLAND, NY 13045

NY Lab Id No: 10795
EPA Lab Code: NY00935

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:*

Amines

2-Nitroaniline	EPA 8270C
3-Nitroaniline	EPA 8270C
4-Chloroaniline	EPA 8270C
4-Nitroaniline	EPA 8270C
Carbazole	EPA 8270C

Benzidines

3,3' -Dichlorobenzidine	EPA 8270C
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Characteristic Testing

Ignitability	EPA 1010
TCLP	EPA 1311

Chlorinated Hydrocarbon Pesticides

4,4'-DDD	EPA 8081A
4,4'-DDE	EPA 8081A
4,4'-DDT	EPA 8081A
Aldrin	EPA 8081A
alpha-BHC	EPA 8081A
alpha-Chlordane	EPA 8081A
beta-BHC	EPA 8081A
Chlordane Total	EPA 8081A
delta-BHC	EPA 8081A
Dieldrin	EPA 8081A
Endosulfan I	EPA 8081A

Chlorinated Hydrocarbon Pesticides

Endosulfan II	EPA 8081A
Endosulfan sulfate	EPA 8081A
Endrin	EPA 8081A
Endrin aldehyde	EPA 8081A
Endrin Ketone	EPA 8081A
gamma-Chlordane	EPA 8081A
Heptachlor	EPA 8081A
Heptachlor epoxide	EPA 8081A
Lindane	EPA 8081A
Methoxychlor	EPA 8081A
Toxaphene	EPA 8081A

Chlorinated Hydrocarbons

1,2,4-Trichlorobenzene	EPA 8270C
2-Chloronaphthalene	EPA 8270C
Hexachlorobenzene	EPA 8270C
Hexachlorobutadiene	EPA 8270C
Hexachlorocyclopentadiene	EPA 8270C
Hexachloroethane	EPA 8270C

Haloethers

4-Bromophenylphenyl ether	EPA 8270C
4-Chlorophenylphenyl ether	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 8270C

Serial No.: 29112

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificates have a raised seal. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify laboratory's accreditation status.



NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Antonia C. Novello, M.D., M.P.H., Dr.P.H.



Expires 12:01 AM April 01, 2007
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3821 BUCK DRIVE
CORTLAND, NY 13045

NY Lab Id No: 10795
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ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:*

Haloethers

Bis(2-chloroethoxy)methane	EPA 8270C
Bis(2-chloroethyl)ether	EPA 8270C

Metals I

Barium, Total	EPA 6010B
Cadmium, Total	EPA 6010B
Calcium, Total	EPA 6010B
Chromium, Total	EPA 6010B
Copper, Total	EPA 6010B
Iron, Total	EPA 6010B
Lead, Total	EPA 6010B
Magnesium, Total	EPA 6010B
Manganese, Total	EPA 6010B
Nickel, Total	EPA 6010B
Potassium, Total	EPA 6010B
Silver, Total	EPA 6010B
Sodium, Total	EPA 6010B

Metals II

Aluminum, Total	EPA 6010B
Antimony, Total	EPA 6010B
Arsenic, Total	EPA 6010B
Beryllium, Total	EPA 6010B
Chromium VI	EPA 7196A

Metals II

Mercury, Total	EPA 7471A
Selenium, Total	EPA 6010B
Vanadium, Total	EPA 6010B
Zinc, Total	EPA 6010B

Metals III

Cobalt, Total	EPA 6010B
Thallium, Total	EPA 6010B

Miscellaneous

Cyanide, Total	EPA 9012A
Hydrogen Ion (pH)	EPA 9040B
	EPA 9045C
Lead in Paint	EPA 3050B
	EPA 6010B

Nitroaromatics and Isophorone

2,4-Dinitrotoluene	EPA 8270C
2,6-Dinitrotoluene	EPA 8270C
Isophorone	EPA 8270C
Nitrobenzene	EPA 8270C

Nitrosoamines

N-Nitrosodi-n-propylamine	EPA 8270C
N-Nitrosodiphenylamine	EPA 8270C

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National Environmental Laboratory Accreditation Conference Standards for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:*

Phthalate Esters

Benzyl butyl phthalate	EPA 8270C
Bis(2-ethylhexyl) phthalate	EPA 8270C
Diethyl phthalate	EPA 8270C
Dimethyl phthalate	EPA 8270C
Di-n-butyl phthalate	EPA 8270C
Di-n-octyl phthalate	EPA 8270C

Polychlorinated Biphenyls

PCB-1016	EPA 8082
PCB-1221	EPA 8082
PCB-1232	EPA 8082
PCB-1242	EPA 8082
PCB-1248	EPA 8082
PCB-1254	EPA 8082
PCB-1260	EPA 8082

Polynuclear Aromatic Hydrocarbons

Acenaphthene	EPA 8270C
Acenaphthylene	EPA 8270C
Anthracene	EPA 8270C
Benzo(a)anthracene	EPA 8270C
Benzo(a)pyrene	EPA 8270C
Benzo(b)fluoranthene	EPA 8270C
Benzo(ghi)perylene	EPA 8270C

Polynuclear Aromatic Hydrocarbons

Benzo(k)fluoranthene	EPA 8270C
Chrysene	EPA 8270C
Dibenzo(a,h)anthracene	EPA 8270C
Fluoranthene	EPA 8270C
Fluorene	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 8270C
Naphthalene	EPA 8270C
Phenanthrene	EPA 8270C
Pyrene	EPA 8270C

Priority Pollutant Phenols

2,4,5-Trichlorophenol	EPA 8270C
2,4,6-Trichlorophenol	EPA 8270C
2,4-Dichlorophenol	EPA 8270C
2,4-Dimethylphenol	EPA 8270C
2,4-Dinitrophenol	EPA 8270C
2-Chlorophenol	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 8270C
2-Methylphenol	EPA 8270C
2-Nitrophenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 8270C
4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 8270C
Pentachlorophenol	EPA 8270C

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Antonia C. Novello, M.D., M.P.H., Dr.P.H.



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Issued April 1, 2006

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. JOHN H. BUCK
BUCK ENVIRONMENTAL LABORATORIES INC
3821 BUCK DRIVE
CORTLAND, NY 13045

NY Lab Id No: 10795
EPA Lab Code: NY00935

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National Environmental Laboratory Accreditation Conference Standards for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:*

Priority Pollutant Phenols

Phenol EPA 8270C

Purgeable Aromatics

1,2-Dichlorobenzene EPA 8260B
1,3-Dichlorobenzene EPA 8260B
1,4-Dichlorobenzene EPA 8260B
Benzene EPA 8260B
Chlorobenzene EPA 8260B
Ethyl benzene EPA 8260B
Styrene EPA 8260B
Toluene EPA 8260B
Total Xylenes EPA 8260B

Purgeable Halocarbons

1,1,1-Trichloroethane EPA 8260B
1,1,1,2,2-Tetrachloroethane EPA 8260B
1,1,2-Trichloroethane EPA 8260B
1,1-Dichloroethane EPA 8260B
1,1-Dichloroethene EPA 8260B
1,2-Dichloroethane EPA 8260B
1,2-Dichloropropane EPA 8260B
2-Chloroethylvinyl ether EPA 8260B
Bromodichloromethane EPA 8260B
Bromoform EPA 8260B

Purgeable Halocarbons

Bromomethane EPA 8260B
Carbon tetrachloride EPA 8260B
Chloroethane EPA 8260B
Chloroform EPA 8260B
Chloromethane EPA 8260B
cis-1,3-Dichloropropene EPA 8260B
Dibromochloromethane EPA 8260B
Dichlorodifluoromethane EPA 8260B
Methylene chloride EPA 8260B
Tetrachloroethene EPA 8260B
trans-1,3-Dichloropropene EPA 8260B
Trichloroethene EPA 8260B
Trichlorofluoromethane EPA 8260B
Vinyl chloride EPA 8260B

Purgeable Organics

2-Butanone (Methylethyl ketone) EPA 8260B
2-Hexanone EPA 8260B
4-Methyl-2-Pentanone EPA 8260B
Acetone EPA 8260B
Carbon Disulfide EPA 8260B
Vinyl acetate EPA 8260B

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Semi-Volatile Organics

2-Methylnaphthalene	EPA 8270C
Benzoic Acid	EPA 8270C
Benzyl alcohol	EPA 8270C
Dibenzofuran	EPA 8270C

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ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved subcategories and/or analytes are listed below:*

Acrylates

Acrolein (Propenal)	EPA 8260B
Acrylonitrile	EPA 8260B

Benzidines

3,3'-Dimethylbenzidine	EPA 8270C
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Chlorinated Hydrocarbon Pesticides

4,4'-DDE	EPA 8081A
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Demand

Carbonaceous BOD	SM 18-20 5210B
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Microextractables

1,2-Dibromo-3-chloropropane	EPA 8260B
1,2-Dibromoethane	EPA 8260B

Nutrient

Nitrite (as N)	EPA 354.1
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Polynuclear Aromatics

Naphthalene	EPA 8260B
	EPA 8270C

Priority Pollutant Phenols

2,4,6-Trichlorophenol	EPA 8270C
2-Methylphenol	EPA 8270C
3-Methylphenol	EPA 8270C

Priority Pollutant Phenols

4-Methylphenol	EPA 8270C
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Purgeable Halocarbons

1,1,1,2-Tetrachloroethane	EPA 8260B
1,1-Dichloropropene	EPA 8260B
1,2,3-Trichloropropane	EPA 8260B
1,3-Dichloropropane	EPA 8260B
2,2-Dichloropropane	EPA 8260B
2-Chloro-1,3-butadiene (Chloroprene)	EPA 8260B
3-Chloropropene (Allyl chloride)	EPA 8260B
Bromochloromethane	EPA 8260B
Dibromomethane	EPA 8260B
trans-1,4-Dichloro-2-butene	EPA 8260B

Purgeable Organics

Acetonitrile	EPA 8260B
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Wastewater Miscellaneous

Specific Conductance	SM 18-20 2510B
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All approved analytes are listed below:*

Amines

2-Nitroaniline	EPA 8270C
3-Nitroaniline	EPA 8270C
4-Chloroaniline	EPA 8270C
4-Nitroaniline	EPA 8270C
Carbazole	EPA 8270C
Pyridine	EPA 8270C

Bacteriology

Coliform, fecal	SM 18-20 9222D
Coliform, Total	SM 18-20 9222B

Benzidines

3,3' -Dichlorobenzidine	EPA 8270C
Benzidine	EPA 8270C

Chlorinated Hydrocarbon Pesticides

4,4'-DDD	EPA 8081A
4,4'-DDT	EPA 8081A
Aldrin	EPA 8081A
alpha-BHC	EPA 8081A
alpha-Chlordane	EPA 8081A
beta-BHC	EPA 8081A
Chlordane Total	EPA 8081A
delta-BHC	EPA 8081A
Dieldrin	EPA 8081A

Chlorinated Hydrocarbon Pesticides

Endosulfan I	EPA 8081A
Endosulfan II	EPA 8081A
Endosulfan sulfate	EPA 8081A
Endrin	EPA 8081A
Endrin aldehyde	EPA 8081A
Endrin Ketone	EPA 8081A
gamma-Chlordane	EPA 8081A
Heptachlor	EPA 8081A
Heptachlor epoxide	EPA 8081A
Lindane	EPA 8081A
Methoxychlor	EPA 8081A
Toxaphene	EPA 8081A

Chlorinated Hydrocarbons

1,2,4-Trichlorobenzene	EPA 8270C
2-Chloronaphthalene	EPA 8270C
Hexachlorobenzene	EPA 8270C
Hexachlorobutadiene	EPA 8270C
Hexachlorocyclopentadiene	EPA 8270C
Hexachloroethane	EPA 8270C

Demand

Biochemical Oxygen Demand	EPA 405.1
Chemical Oxygen Demand	HACH 8000

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Haloethers

4-Bromophenylphenyl ether	EPA 8270C
4-Chlorophenylphenyl ether	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 8270C
Bis(2-chloroethyl)ether	EPA 8270C

Mineral

Alkalinity	EPA 310.1
Chloride	EPA 300.0
	EPA 325.3
Fluoride, Total	EPA 300.0
Hardness, Total	EPA 130.1
Sulfate (as SO ₄)	EPA 300.0
	EPA 375.3

Nitroaromatics and Isophorone

2,4-Dinitrotoluene	EPA 8270C
2,6-Dinitrotoluene	EPA 8270C
Isophorone	EPA 8270C
Nitrobenzene	EPA 8270C

Nitrosoamines

N-Nitrosodimethylamine	EPA 8270C
N-Nitrosodi-n-propylamine	EPA 8270C
N-Nitrosodiphenylamine	EPA 8270C

Nutrient

Ammonia (as N)	LACHAT 10-107-06-1-B
Kjeldahl Nitrogen, Total	LACHAT 10-107-06-2
Nitrate (as N)	EPA 300.0
	LACHAT 10-107-04-1
Nitrite (as N)	EPA 300.0

Phthalate Esters

Benzyl butyl phthalate	EPA 8270C
Bis(2-ethylhexyl) phthalate	EPA 8270C
Diethyl phthalate	EPA 8270C
Dimethyl phthalate	EPA 8270C
Di-n-butyl phthalate	EPA 8270C
Di-n-octyl phthalate	EPA 8270C

Polychlorinated Biphenyls

PCB-1016	EPA 8082
PCB-1221	EPA 8082
PCB-1232	EPA 8082
PCB-1242	EPA 8082
PCB-1248	EPA 8082
PCB-1254	EPA 8082
PCB-1260	EPA 8082

Polynuclear Aromatics

Acenaphthene	EPA 8270C
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All approved analytes are listed below:*

Polynuclear Aromatics

Acenaphthylene	EPA 8270C
Anthracene	EPA 8270C
Benzo(a)anthracene	EPA 8270C
Benzo(a)pyrene	EPA 8270C
Benzo(b)fluoranthene	EPA 8270C
Benzo(ghi)perylene	EPA 8270C
Benzo(k)fluoranthene	EPA 8270C
Chrysene	EPA 8270C
Dibenzo(a,h)anthracene	EPA 8270C
Fluoranthene	EPA 8270C
Fluorene	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 8270C
Phenanthrene	EPA 8270C
Pyrene	EPA 8270C

Priority Pollutant Phenols

2,4,5-Trichlorophenol	EPA 8270C
2,4-Dichlorophenol	EPA 8270C
2,4-Dimethylphenol	EPA 8270C
2,4-Dinitrophenol	EPA 8270C
2-Chlorophenol	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 8270C
2-Nitrophenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 8270C

Priority Pollutant Phenols

4-Nitrophenol	EPA 8270C
Cresols, Total	EPA 8270C
Pentachlorophenol	EPA 8270C
Phenol	EPA 8270C

Purgeable Aromatics

1,2-Dichlorobenzene	EPA 8260B
	EPA 8270C
1,3-Dichlorobenzene	EPA 8260B
	EPA 8270C
1,4-Dichlorobenzene	EPA 8260B
	EPA 8270C
Benzene	EPA 8260B
Chlorobenzene	EPA 8260B
Ethyl benzene	EPA 8260B
Styrene	EPA 8260B
Toluene	EPA 8260B
Total Xylenes	EPA 8260B

Purgeable Halocarbons

1,1,1-Trichloroethane	EPA 8260B
1,1,2,2-Tetrachloroethane	EPA 8260B
1,1,2-Trichloroethane	EPA 8260B
1,1-Dichloroethane	EPA 8260B

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ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:*

Purgeable Halocarbons

1,1-Dichloroethene	EPA 8260B
1,2-Dichloroethane	EPA 8260B
1,2-Dichloropropane	EPA 8260B
2-Chloroethylvinyl ether	EPA 8260B
Bromodichloromethane	EPA 8260B
Bromoform	EPA 8260B
Bromomethane	EPA 8260B
Carbon tetrachloride	EPA 8260B
Chloroethane	EPA 8260B
Chloroform	EPA 8260B
Chloromethane	EPA 8260B
cis-1,3-Dichloropropene	EPA 8260B
Dibromochloromethane	EPA 8260B
Dichlorodifluoromethane	EPA 8260B
Methylene chloride	EPA 8260B
Tetrachloroethene	EPA 8260B
trans-1,2-Dichloroethene	EPA 8260B
trans-1,3-Dichloropropene	EPA 8260B
Trichloroethene	EPA 8260B
Trichlorofluoromethane	EPA 8260B
Vinyl chloride	EPA 8260B

Purgeable Organics

2-Butanone (Methylethyl ketone)	EPA 8260B
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Purgeable Organics

2-Hexanone	EPA 8260B
4-Methyl-2-Pentanone	EPA 8260B
Acetone	EPA 8260B
Carbon Disulfide	EPA 8260B
Vinyl acetate	EPA 8260B

Residue

Solids, Total	EPA 160.3
Solids, Total Dissolved	EPA 160.1
Solids, Total Suspended	EPA 160.2

Semi-Volatile Organics

2-Methylnaphthalene	EPA 8270C
Benzoic Acid	EPA 8270C
Benzyl alcohol	EPA 8270C
Dibenzofuran	EPA 8270C

Wastewater Metals I

Barium, Total	EPA 6010B
Cadmium, Total	EPA 6010B
Calcium, Total	EPA 6010B
Chromium, Total	EPA 6010B
Iron, Total	EPA 6010B
Lead, Total	EPA 6010B
Magnesium, Total	EPA 6010B

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All approved analytes are listed below:*

Wastewater Metals I

Manganese, Total	EPA 6010B
Nickel, Total	EPA 6010B
Potassium, Total	EPA 6010B
Silver, Total	EPA 6010B
Sodium, Total	EPA 6010B

Wastewater Metals II

Aluminum, Total	EPA 6010B
Antimony, Total	EPA 6010B
Arsenic, Total	EPA 6010B
Beryllium, Total	EPA 6010B
Chromium VI	EPA 7196A SM 18-19 3500-Cr D
Mercury, Total	EPA 7470A
Selenium, Total	EPA 6010B
Vanadium, Total	EPA 200.7
Zinc, Total	EPA 6010B

Wastewater Metals III

Cobalt, Total	EPA 200.7
Thallium, Total	EPA 200.7

Wastewater Miscellaneous

Bromide	EPA 300.0
Color	EPA 110.2

Wastewater Miscellaneous

Cyanide, Total	EPA 9010B LACHAT 10-204-00-1-A
Hydrogen Ion (pH)	EPA 150.1 EPA 9040B
Oil & Grease Total Recoverable	EPA 1664A
Organic Carbon, Total	EPA 415.1
Phenols	LACHAT 10-210-00-1-A
Sulfide (as S)	EPA 376.1
Temperature	EPA 170.1

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ENVIRONMENTAL ANALYSES ANALYTICAL SERVICES PROTOCOL
All approved subcategories and/or analytes are listed below:*

CLP Volatile Organics
CLP PCB/Pesticides
CLP Semi-Volatile Organics

Serial No.: 29116

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APPENDIX D

HEALTH AND SAFETY PLAN



HEALTH AND SAFETY PLAN

FOR

SUPPLEMENTAL REMEDIAL INVESTIGATION:

**WINATIC CORPORATION
409 COMMERCE ROAD
TOWN OF VESTAL
BROOME COUNTY
NEW YORK
Site No. V00138**

September 8, 2006

Prepared by:

**BUCK ENGINEERING, LLC
3821 BUCK DRIVE
PO BOX 5150
CORTLAND, NEW YORK 13045**



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SECTION 1: DISCLAIMER

Buck Engineering, LLC (BE) and Buck Environmental Laboratories, Inc. (BEL) do not guarantee the health and safety of any person entering this site. Strict adherence to the health and safety guidelines set forth herein will reduce, but not eliminate, the potential for injury at this site. The health and safety guidelines in this plan were prepared specifically for this site and should not be used on any other site without prior research and evaluation by trained personnel. While BE and BEL do not object to the use of this Health and Safety Plan by other firms or individuals, BE and BEL accept no liability for such use.



SECTION 2: GENERAL INFORMATION

INTRODUCTION: This document represents the Health and Safety Plan developed specifically for investigation activities at and near 409 Commerce Road, Vestal, NY. Previous site investigation activities have determined the presence of volatile organic compounds (VOC's), primarily trichloroethene in the dissolved and vapor phase at the subject site and adjacent properties. Buck Engineering, LLC (BE) has developed this Health and Safety Plan to provide information and guidance for on-site personnel, visitors, and the public.

The planned scope of work at the site includes the collection of sub-slab soil and groundwater samples. Exterior soil borings, one overburden monitoring well and two bedrock monitoring wells are also proposed.

Note: This Health and Safety Plan is to be used by employees of Buck Engineering, LLC and Buck Environmental Laboratories, Inc (BEL). While BE and BEL do not object to the use of this Health and Safety Plan by other firms or individuals, BE and BEL will accept no liability for such use.

SITE ADDRESS: 409 Commerce Road
Vestal, New York
(Winatic Corporation)

NYSDEC SITE #: V00138

PROJECT SCHEDULE: Summer of 2006

BE & BEL STAFF: John H. Buck, P.E. - Project Administrator/Senior Direction
Andrew Korik, CCM – Project Management
Eric Monsen - Health & Safety, Sampling Supervision
Peter A. Indick - Analytical Chemistry

PERSONNEL COVERED BY PLAN: This Health & Safety Plan is intended only for the employees of BE and BEL. Other entities working at the site may, at their discretion, adopt this plan in whole or in part.

NOTIFICATIONS: Prior notification of field activities will be made to Dig Safely New York (formerly the Underground Facilities Protective Organization), the Town of Vestal, and the NYS Department of Environmental Conservation.

END OF GENERAL INFORMATION



SECTION 3: SITE DESCRIPTION AND INVESTIGATION OBJECTIVES

SITE DESCRIPTION: The subject site (Winatic Corporation) is currently unoccupied. The site consists of an approximately 1.5 acre parcel upon which is located a one-story building of approximately 16,000 square feet. The site was first developed in 1967 when the original portion of the building was constructed. An addition at the north end was constructed in 1969. From 1967 through 1999, coils, transformers and printed circuit boards were manufactured at the facility. Production ceased in 1999. The industrial solvent Trichloroethene (TCE) was used for many years at the site. Waste TCE was reportedly discarded onto the ground surface along the north side of the building many years ago.

The Fine-Host property is located northwest of the subject site on the opposite side of Commerce Road. The approximately 15,000 square-foot building is currently unoccupied.

INVESTIGATIVE OBJECTIVES: Previous studies conducted at the Winatic property and adjacent properties have established that dissolved phase and vapor phase VOC's (primarily TCE) are present in the subsurface at the Winatic and adjacent properties. Given the historic use of TCE at Winatic, and the reported non-use of TCE at the adjacent properties under study, Winatic is a potential source. The investigative focus will be:

- Soil sampling along north (exterior) wall of the Winatic building.
- Sub-slab soil sampling inside the Winatic building; and
- Installation of a bedrock groundwater monitoring well on the Winatic property.
- Installation of an overburden monitoring well on the west side of the Fine-Host property.

The investigative objectives identified by the NYSDEC are:

1. Investigate whether a TCE source area remains at depth beneath the area of a previous soil excavation;
2. Investigate whether the dissolved phase TCE plume has migrated beyond the Fine-Host building;
3. Evaluate TCE concentrations in sub-slab soil beneath the Winatic foundation; and
4. Evaluate TCE concentrations in groundwater from the deep bedrock aquifer.

END OF SITE DESCRIPTION AND INVESTIGATION OBJECTIVES



SECTION 4: WORK AREAS

The investigation will include four (4) separate work areas at the Winatic property and adjacent Fine-Host property. The following table will provide a summary of the work areas, property where the work will occur, the location of the work, and the scope of the work:

Work Area	Property	Location	Scope of Work
W-1	Winatic	Inside building at north end	Sub-slab soil sampling
W-2	Winatic	Outside northern end of building	Soil sampling
W-3	Winatic	Outside building at northwest corner of property	Installation/sampling of bedrock groundwater monitoring well
FH-1	Fine Host	West side of building (outside)	Overburden monitoring well installation/sampling

END OF WORK AREAS

SECTION 5: SITE CONTROL

This project is being conducted in a commercial and industrial area of Vestal on Commerce Road. The Winatic and Fine Host buildings are unoccupied.

The investigation includes four (4) work areas spread out over two unoccupied properties and buildings. Because of this it will not be feasible to establish a single exclusion and contamination-reduction zone for the investigation.

Support Zone

The support zone for the entire investigation will be the Winatic parking lot. This area will be the central meeting area in case of an emergency and will be where project meetings will occur. Equipment staging and mobilization will occur at the support zone.

Exclusion Zones

Exclusion zones will be established for each work area and will be based on the type and location of work being performed. The following listing will summarize the various exclusion zones for this investigation:

Drilling and Geoprobe:

The installation of the bedrock groundwater monitoring well and sub-grade soil gas sampling points will involve the use of a drill rig and geoprobe apparatus. These types of equipment can pose a serious physical hazard. In addition, these activities are intrusive and there is a



Section 5: Site Control (Con't)

potential for exposure to TCE vapors released from pathways opened during drilling, split spoon sampling, monitoring well installation, and sampling. An exclusion zone of 50 feet will be established around each drilling and geoprobe location. No one other than the drillers, geoprobe operators, site manager, geologist, technician, or other authorized visitor will be permitted inside the exclusion zone.

Sub-Slab Soil Sampling:

This activity includes the collection of sub-slab soil samples from inside the Winatic building (work area W-1). The collection of the sub-slab sampling points will include the use of portable concrete and soil coring equipment, which could pose a moderate physical hazard to persons in the immediate vicinity of the equipment. In addition, these activities are intrusive and there is a potential for exposure to TCE vapors released from pathways opened by coring the foundation slab inside each building. The Winatic building is vacant and the entire inside of the building will be considered the exclusion zone and no persons other than those directly involved in the investigation will be permitted inside this building.

Contamination Reduction Zones

The majority of the investigation will require minimal decontamination. Any decontamination that is performed will be conducted at a contamination reduction zone established on the Winatic property adjacent to the bedrock well installation work zone. Drilling and geoprobe operations, during the installation of the bedrock and overburden monitoring wells, will require some equipment decontamination and a designated decontamination area will be established adjacent to the drilling area. Containers (55 gallons drums) will be on-site in the contamination reduction zone for the collection of waste-water, cuttings, and other contaminated media. Only project personal will be permitted in the contamination reduction zone.

END OF SITE CONTROL



SECTION 6: SITE HAZARDS

- Chemical Hazards: Trichloroethene (TCE) vapors, (OSHA PEL: 100 ppm)
- Physical Hazards: Various physical hazards as described below.
- Biological: None known or anticipated.

HAZARD ASSESSMENT

The following will provide an assessment of hazards that are likely to be encountered by site workers (workers conducting the investigation) and the public (building occupants) during the investigation.

The primary hazards associated with the investigation have been identified as follows:

- Chemical: Exposure to airborne TCE (Trichloroethene) vapors; and
- Physical: Hazards associated with the drilling and geoprobe equipment.

Chemical: TCE (Trichloroethene):

TCE is regulated by OSHA as a hazardous substance and has established a permissible exposure limit of 100 ppm (airborne). An evaluation of the levels of TCE inside and beneath the slab of the Winatic building was conducted during August 2003. The suspected source area of contamination is along the north side of the Winatic building (see Figure 2 of the work plan). The highest TCE concentration measured inside the Winatic building was 0.016 ppm. The highest TCE concentration measured in soil vapors collected beneath the Winatic building slab was 14 ppm. These concentrations are well below the OSHA PEL of 100 ppm for TCE.

The preliminary assessment of potential exposure to TCE by investigation personal and the public/community during the investigation is **low**. However, precautionary measures will be taken to ensure that investigation personal and the public/community are not exposed to TCE.

Information on preventative and personal protective measures that will be taken to reduce exposure to TCE vapors are included in the chemical hazards discussion section.

Physical:

The primary physical hazards will be the potential for bodily injury from the drilling and geoprobe equipment. The general public will not be permitted in the established exclusion zones for the drilling and geoprobe operations and would not be at risk. Investigation personal will take appropriate personal protective measures to reduce the risk of physical injury during the investigation. A description of these measures are included in the physical hazards discussion.

The following will provide a listing of those chemical and physical hazards identified at the subject site along with preventative and personal protective measures.



Section 6: Site Hazards (Con't)

CHEMICAL HAZARDS

The primary contaminant and potential chemical hazard of concern is trichloroethene (TCE). No source areas of TCE are believed to exist beneath the Fine-Host property or other properties surrounding the Winatic site where this investigation will occur. The following paragraphs will discuss the preventative and personal protective measures that will be taken by investigative personal to reduce exposure to TCE.

Investigation Personal (Management, Technicians, Site Workers, Equipment Operators)

The greatest potential for exposure to TCE by investigation personal would be during well drilling, geoprobe sampling, and sub-slab soil sampling inside the Winatic building.

Personal Protective Equipment (Chemical):

Level D will be the minimum level of worker protection during the investigation. Workers will be prepared to upgrade to modified Level C ($\frac{1}{2}$ face air purifying respirator). Additional information on personal protective equipment is provided in the personal protective equipment section.

Monitoring:

Field instrumentation, in the form of a photoionization detector (PID), will be on-site during the site investigation and will be used to screen the air around each work area to confirm that TCE concentrations do not exceed the OSHA PEL. An action level of 5.0 ppm over background will be established for all site investigation activities. The action level follows the same general guidelines as those in an NYSDOH CAMP monitoring plan. If airborne VOC concentrations exceed 5.0 ppm at any work area, work will stop and workers will upgrade to Level C protection and don respiratory equipment. Work will not continue until airborne VOC concentrations fall below 5.0 ppm or background. In no case shall work continue if airborne VOC concentrations exceed 5.0 ppm.



Section 6: Site Hazards (Con't)

Public/Community

Personal Protective Equipment (Chemical):

No provisions for providing personal protective equipment to the public or community have been made.

Monitoring:

The only potential for exposure to TCE by the public or community would be during the investigative work conducted outside the buildings. Monitoring for airborne TCE will be conducted using an RAE Systems ppb RAE as discussed previously.

PHYSICAL HAZARDS

Heavy Equipment

Heavy equipment including drill rigs and geoprobe equipment will be used during various phases of the investigation. Only trained and certified personal will be permitted to operate these pieces of equipment will not be permitted to operate these pieces of equipment. The following procedures will be implemented for all persons operating and working around heavy equipment:

- Proximity: Non-operator investigative personal will not stand in the immediate proximity of the drill rig or geoprobe while this equipment is in operation. If there is a need to approach the equipment the operator will be given prior notification.
- Utilities: Equipment operators must be aware of overhead and below grade utilities and avoid working in close proximity to these types of utilities. UFPO notifications will be made prior to the start of the investigation.
- Hard Hats: All operators and ground personal will don hard hats when working in and around heavy equipment.
- Ear Plugs: All operators and ground personal will don ear plugs when working in and around heavy equipment.
- Safety Glasses: All operators and ground personal will don safety glasses when working in and around heavy equipment.



Section 6: Site Hazards (Con't)

Electrical Power (OSHA 29 CFR 1910 Subpart S)

Electric service are available at the site where indoor work will occur. All power will have ground fault interrupter (GFI) as part of the circuit for each cord or electric line used for this project.

Lighting (OSHA 29 CFR 1910.120(m))

Interior work will take place under adequate lighting. Outdoor work will take place during daylight hours.

Fall Protection (OSHA 29 CFR 1910.21 through 29 CFR 1910.32)

Slip, trip and fall hazards are minimal at the site. All work will take place at ground level. Both buildings are concrete slab-on-grade.

Physical Body Protection

Level D protective equipment (work shoes, work gloves, safety glasses, hard hats, and ear plugs) will be worn by site workers.

Cold and Heat Stress

The investigation is scheduled for the summer months, thus issues related to cold temperatures are not expected. Investigation personal should don the appropriate clothing and monitor fluid intake to reduce the potential for heat stress and related issues.

Confined Space

No confined space entry scenarios are anticipated.

Hearing Protection (29 CFR 1910.95)

It is possible that some equipment such as the drill rig, geoprobe, and coring equipment will generate noise levels in excess of 85 dB and hearing protection will be mandatory when the equipment is in use.

Fire Protection/Prevention

Non-sparking tools shall be used when appropriate. All electrical equipment shall be equipped with ground fault interrupters. Fire extinguishing equipment shall be available on site. Emergency escape routes shall be established prior to the start of investigation activities.

Water Hazards

In general, water hazards are not anticipated.



Section 6: Site Hazards (Con't)

Biological Hazards

No biological hazards in the form of animal or insect infestation were observed or identified on the Winatic property or during previous visits to the Leva and Fine-Host properties.

END OF SITE HAZARDS



SECTION 7: PERSONAL PROTECTIVE EQUIPMENT (PPE)

The following will summarize personal protective equipment that may be required during the investigation phase. The level of personal protective equipment that is anticipated to be used at the site is Level D as defined by the U.S. EPA. Modified Level C, consisting of Level D with an upgrade to a ½-face air-purifying respirator equipped with organic vapor cartridges will be available to workers. Upgrade to respirator use will be based on the results of PID screening during the installation of the sub-slab sampling points. Level D and C criteria are provided below.

LEVEL D

Level D protection is required when:

- The atmosphere contains no known hazard;
- The work tasks preclude splashes, immersions, or the potential for unexpected inhalation, ingestion, or direct contact with hazardous concentrations of chemicals; and
- Airborne concentrations of contaminants are less than the TLV.

Level D Requirements

Respiratory Protection:

- Not required

Body Protection:

- Standard work uniform
- Disposable gloves (mandatory for all site activities involving direct contact with water or soil)
- Safety glasses (mandatory for all site activities)
- Hearing protection (mandatory during drilling, geoprobe, and coring)
- Hard hat (mandatory during drilling and geoprobe)

LEVEL C

Level C protection is required when:

- The level of respiratory protection is unknown or reasonably assumed to not be greater than the level of protection afforded by air purifying respirators and;
- When chemical exposure to unprotected areas of the body is unlikely.

Level C Requirements

Respiratory Protection:

- Air purifying respirator (mandatory if VOC concentrations exceed 5.0 ppm)

Body Protection:

- Level D requirements; and
- Chemical protective coveralls (not required)

END OF PERSONAL PROTECTIVE EQUIPMENT



SECTION 8: DECONTAMINATION

Equipment:

All sampling equipment will be dedicated. It is anticipated that minimal onsite decontamination will be required. A contamination reduction zone will be established on the Winatic property for decontamination of drilling and geoprobe equipment. The majority of the sampling equipment will be either dedicated or disposable and will be removed from the site and disposed of at the conclusion of the investigation. Containers (55 gallons drums) will be on-site in the contamination reduction zone for the collection of waste-water, cuttings, and other contaminated generated from the investigation. Only project personal will be permitted in the contamination reduction zone.

Personal:

No personal decontamination is anticipated. Investigation personal will not come in direct contact with groundwater or soils and disposable gloves will be worn by personal collecting samples.

END OF DECONTAMINATION

SECTION 9: AIR MONITORING PROGRAM

An air monitoring program will be followed as outlined in the chemical hazards section.

END OF AIR MONITORING PROGRAM

SECTION 10: SPECIAL SAFETY PROCEDURES

- All personnel working at the site must read and sign the Health & Safety Plan. No unauthorized visitors will be allowed in the work areas.
- All injuries, regardless of severity, must be reported immediately.
- Any hazardous material or situation discovered in the work areas during investigation activities not identified in this HSP will be reported to the Health and Safety Officer immediately.

END OF SPECIAL SAFETY PROCEDURES



SECTION 11: EMERGENCY RESPONSE/CONTINGENCY PLAN

EMERGENCY ESCAPE ROUTES: The normal escape would be south on Commerce Road then east or west on Old Vestal Road.

EMERGENCY ASSISTANCE: Ambulance: 911
Fire Department: 911 or 607-754-1313
Police: 911
Wilson Memorial Regional Medical Center: 607-763-6000
NYSDEC Kirkwood: 607 775-2545
USEPA Region II: 212-264-2525
NYSDEC 24 hour spill response: 800-457-7362
National Response Center: 800-424-8802
Center for Disease Control: 404-488-4100

DIRECTIONS TO NEAREST HOSPITAL:
(Wilson Memorial)
SEE ATTACHED MAP

Go south on Commerce Road to Old Vestal Road.
Turn left on Old Vestal Road and continue to Route 201.
Take Route 201 North, and cross over the Susquehanna River.
Continue north on Rt. 201 to Main Street and turn right.
Take Main Street approximately ½ mile to Harrison Street.
Turn right on Harrison Street.
The hospital is at 33-57 Harrison Street in Johnson City.

WHOM TO CONTACT IN CASE OF EMERGENCY Buck Engineering: Mr. John Buck, 607-753-3403
Leva Brothers: Mr. Joe Leva, 607-798-7104
NYSDEC, Region 7 (Kirkwood): Mr. Tom Suozzo, 607- 775-2545

PERSON THAT PREPARED THE PLAN: Eric Monsen

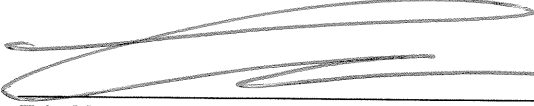
DESIGNATED SAFETY OFFICER: Eric Monsen

END OF EMERGENCY RESPONSE/CONTINGENCY PLAN



APPENDIX A

**PLAN REVIEW AND
APPROVAL:**


Eric Monsen

9/8/06
Date


Andrew Korik

9/8/06
Date


John H. Buck, P.E.

9/8/06
Date

**PROJECT STAFF
ACKNOWLEDGMENTS:**


Please sign below indicating that you have read this plan, that you understand this plan, and that all safety related questions have been addressed to your satisfaction.


John H. Buck, P.E.

9/8/06
Date


Andrew Korik

9/8/06
Date


Eric Monsen

9/8/06
Date


Peter Indick

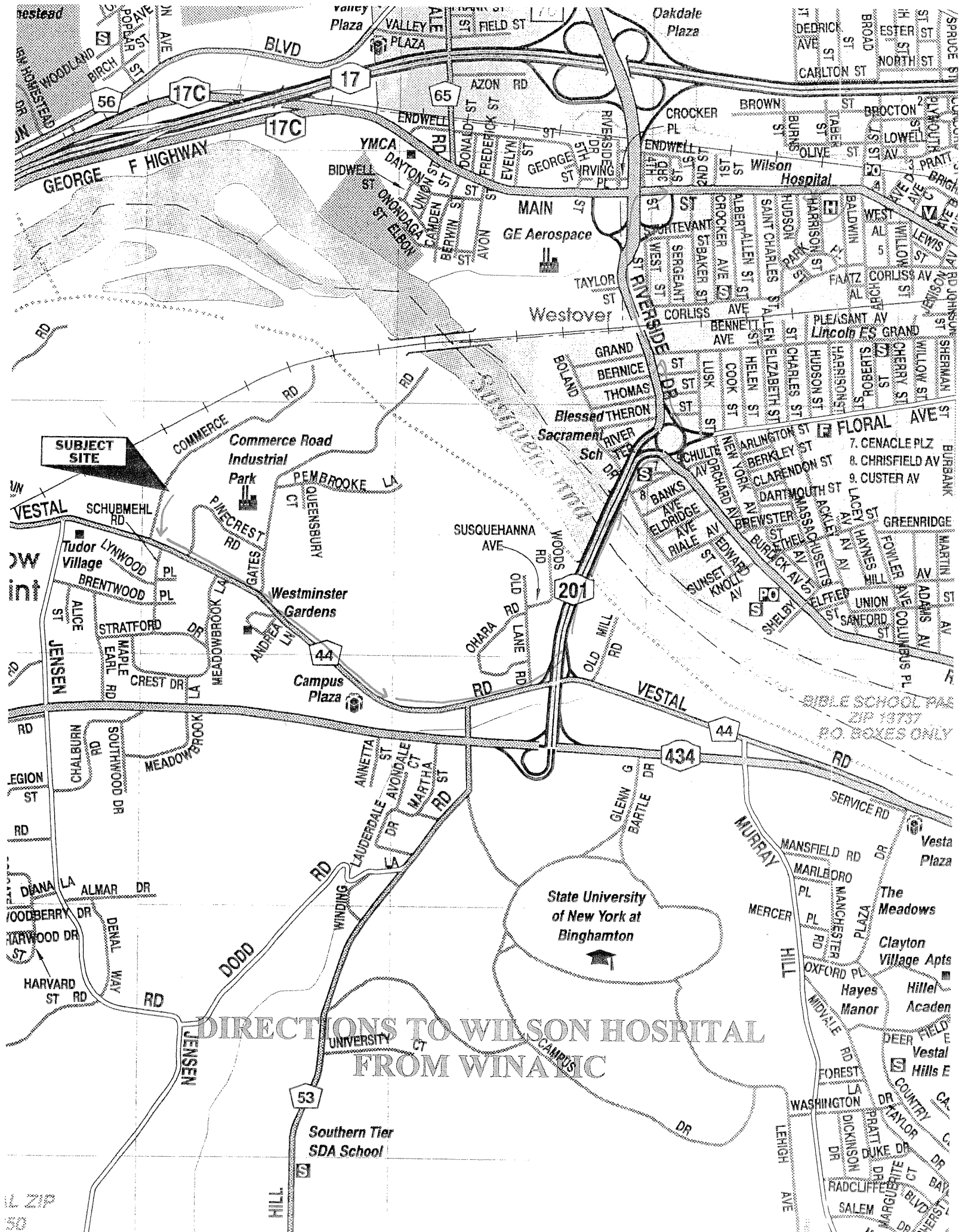
9/8/06
Date



APPENDIX C

A copy of the site location map is provided on the following page showing the location of the nearest hospital.





SUBJECT SITE

**DIRECTIONS TO WILSON HOSPITAL
FROM WINATIC**

IL ZIP
50