STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Petition of BNE Energy Inc. for a Declaratory Ruling for the Location, Construction and Operation of a 3.2 MW Wind Renewable Generating Project on New Haven Road in Prospect, Connecticut	**Docket/Petition No. 980** **February 16, 2011**

Prefiled Testimony of John E. Stamberg, P.E.

Q. What is your name and place of employment?

A. My name is John B. Stamberg, P.E.; I am Vice President in the consulting firm of Energy Ventures Analysis, Inc. My business address is 1901 N. Moore Street, Suite 1200, Arlington, VA 22209-1706.

Q. Please provide a brief description of your education and experience.

A. I have a Bachelor of Science in Civil Engineering from the University of Maryland and a Master of Science Degree in Civil Engineering from Stanford University. I have been a licensed professional engineer since the mid 1970's. My resume is attached at Exhibit JBS-1.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to show that the BNE Energy, Inc. project activities have a potential to cause, aggravate or enlarge the existing groundwater contamination plume migration from the U.S. Cap and Jacket Brownfield's site. The Wind Prospect is on an adjacent property that is only 200 feet from U.S. Cap and Jacket's former building where the groundwater contamination originated. Given BNE's close proximity and its onsite

construction and ongoing operating could change local groundwater flows, additional investigations are required to protect the local community's groundwater supplies.

I am recommending that (1) Geological and Hydrological studies be conducted once wind tower and other foundations are designed; (2) such studies include an evaluation of the potential risks of the planned activity at the site and whether there are practical and feasible steps to eliminate such risks; (3) such studies propose a plan, if practical and feasible, to eliminate such risks; (4) if a practical and feasible means is found to eliminate the risks of the planned activity, that the studies include the steps recommended to implement such means; (5) a groundwater monitoring program be established to assure no increase pollutant migration occurs, to begin with a baseline evaluation of the current extent of the contamination at the site and in the adjoining neighborhood; (6) the Siting Council approve of the firm or firms to conduct the investigations, and monitoring and that all work product of the firm or firms hired be made available to all parties and stakeholders (7) BNE Energy, Inc. establish and maintain an environmental liability bond; and (8) no construction activity be commenced at the site until the foregoing steps have been undertaken.

Q. Is the U.S. Cap and Jacket Site in Prospect, Connecticut an U.S. Environmental Protection Agency (EPA) Brownfield Target Site?

A. Yes. It was evaluated as a Brownfield target site and was assessed for the U.S. Environmental Protection Agency (Region 1) by Tetra Tech NUS, Inc. under EPA Contract No.68-W6-0045; EPA Work Assignment No. 114-SIBZ-0100; and Tetra Tech NUS Project No. N4128.

Q. In general, what is a Brownfield site?

A. It is a site that was polluted, not remediated, and remains with all or some degree of the pollution. The residual pollutants are allowed to remain and the use, alteration or impacts must be recognized and dealt with in a manner not to impact health, safety or cause further pollution impacts.

Q. Is the Brownfield U.S. Cap and Jacket Site adjacent to the proposed BNE Energy, Inc. 3.2 MW (megawatts) Wind Renewable Generating Project in Prospect, Connecticut?

A. Yes. The BNE Energy, Inc. site is 67.50 acres on an adjacent property and is about 200 feet or less from the former U.S. Cap and Jacket building's Brownfield site, as shown in Exhibit JBS-2, which is based on Vanasse Hangez Brustlin, Inc. "Habitat Type Map" and Exhibit JBS-3 which is based on Vanasse Hanger Brustlin, Inc. "Wind Prospect Noise Monitoring and Receptor Location" map.

Q. What are the sources of pollutants in the groundwater and soils at the U.S. Cap and Jacket site?

A. The sources of pollutants in the groundwater and soils at the U.S. Cap and Jacket site were as shown in Exhibit JBS-4 (a.k.a. Figure 1-2 by Tetra Tech NUS, Inc.) were:

1. 1500 gallon waste solvent UST.
2. Reported 750 gallon waste mineral spirals.
3. 200 gallon fuel oil tank UST.

4. Above ground 275 gallon tank.

5. Above ground 275 gallon tank.

6. Above ground 275 gallon tank.

7. 550 gallon waste solvent UST (all above were removed in 2001 or not encountered). Note: UST is "underground storage tank".

8. Stained soils.

9. Trash and debris.

10. Septic cleanout.

11. Septic system wet well.

12. West leach field.

13. East leach field.

14. Drinking water wells.

15. Drainage ditches.

Q. What were the pollutants found in the groundwater and soils at the U.S. Cap and Jacket Brownfield site?

A. The soils analysis of volatile organics (VOCs) and Semi-Volatile Organics at the U.S. Cap and Jacket site that were identified as detectable in the Brownfield study by Tetra Tech NUS, Inc. in 2002 included:

1. VOC's

   a. 2 Hexanone

   b. Tetrachloroethene

   c. Toluene

d. Trichloroethene

e. 1-2 Dichloroethenes (cis and trans)

f. 1-1 Dichloroethene

g. Bromoethane

h. Ethylbenzene

i. Xylenes

j. Isoproplbenzene

k. Vinyl Chloride

l. Perchloroethylene

m. 1.1-Dichloroethane

n. 1.1-Bipheryl

2. Semi-Volatile Organics

a. Benzeldehyde

b. Acetaphenone

c. Anenaphthylene

d. Florene

e. Phenanthrene

f. Anthracene

g. Floranthene

h. Pyrene

i. Benzo (a) Anthracene

j. Chrysene

k. Benzo (b) Fluoronthene

l. Benzo (k) Fluoronthene

m. Benzo (a) Pyrene

n. Indeno (1,2,3-cd) Pyrene

o. Benzo (g, h, i) Pyrene

3. Extractable Total Petroleum Hydrocarbons (ETPH)

Q. What was the likely source of the VOCs?

A. The VOCs are essentially the organic solvents that likely were used by Jaymax Precision, Inc. who was a screw machine manufacturer.

Q. What was the likely source of Semi-Volatile Organics?

A. The most likely source is decaying asphalt or decaying fuel oil products.

Q. Do any of the detected VOCs or Semi-Volatile Organic chemicals exceed the State of Connecticut soil or groundwater criteria that would restrict the use of the U.S. Cap and Jacket Brownfield site?

A. Yes. As listed below and also listed in the Brownfield's Targeted Site Assessment:

Soil chemicals that exceed State GA PMC concentration for Groundwater Protection in 0-7.5 feet below ground surfaces. (Note: Tests below 7.5 were not done.)

- perchlorethylene
- extractable total hydrocarbons
- trichloroethene

- cis-1.2 dichloroethene
- vinyl chloride

Groundwater chemicals that exceed State GA GPC concentrations in 0-7.5 feet below ground surfaces. (Note: Tests below 7.5 feet were not done.)

- perchloroethane
- trichloroethenes
- 1,1,1 – trichloroethene
- 1,1,2 – trichloroethene
- 1,1 dichloroethane
- 1,1 dichloroethenes
- 1,2 dichloroethenes
- methylene chloride
- vinyl chloride
- benzene
- 1,1 biphenyl

Q. Did the U.S. Cap and Jacket Brownfield's Target Site Assessment fully test groundwater or soils below 7.5 feet below the ground surface?

A. No.

Q. Is it prudent to test groundwater and soils below 7.5 feet if the site conditions are altered?

A. Yes.

Q. Have these VOCs and Semi-Volatile Organic pollutants been fully remediated?

A. No. In 2001 EPA authorized the removal of the aboveground and underground storage tank contents and removal of tanks as well as authorized the removal of 1553 tons (± 78 truck loads) of contaminated soil. However, additional soil and groundwater investigations "are recommended to more completely characterize the nature and extent of residual of soil and groundwater contamination and evaluate the requirements for remedial actions. . . that describes the nature and extent of residual soil and groundwater contamination, contamination migration pathways and the exposure risks to potential human and environmental receptors" (page 7.4, section 7.2.1 of the Brownfield's Targeted Site Assessment).

Q. How is the existing VOC and Semi-Volatile Organics migrating from the U.S. Cap and Jacket site?

A. The "Brownfield's Target Assessment" report prepared for the EPA found that the groundwater pollutant plume has migrated north and east of the site.

Q. Has the migrating groundwater pollutants migrated into local water wells and created an exposure risk to humans and environmental receptors? Have these pollutants necessitated water treatment of these well water sources in Prospect, Connecticut?

A. Yes. Several nearby groundwater wells have had to install activated carbon filters to remove pollutants originating from the U.S. Cap and Jacket Brownfield site.

Q. How will the BNE Energy, Inc. project potentially adversely impact the contaminated groundwater migration in Prospect, Connecticut?

A. The BNE Energy stated clearing and disturbance of 8.36 acres for roads, wind turbines and buildings are likely to alter the infiltration patterns of the BNE property. Clearing local trees and vegetation as planned by BNE Energy to construct access roads and support turbine construction can increase infiltration rates and could increase flow and higher groundwater elevations which in turn could cause faster migration to the east and north into other nearby residential areas. If this change occurs, the existing groundwater contamination plume could spread to more wells and more areas of deep rock fracture migration. The design depth of the foundation is not available but the depth and construction technique of these foundations can also alter the migration pattern on the BNE Energy site.

Q. What are the potential sources of water that would impact the groundwater at the proposed BNE Energy, Inc. facility?

A. There are five potential sources:

1. Additional groundwater infiltration of rain/snow melt caused on the cleared and disturbed areas of 8.36 acres on the site.
2. The deep foundations which are needed for the wind towers that penetrate deep into the earth.
3. Potential runoff into highly pervious soils north and east of the cleared and disturbed areas.

4. Wells needed to provide onsite water supply and sanitary system needs

5. Septic tank drain field infiltration system for onsite wastewater treatment.

Q. Can you illustrate the potential for the possible change in groundwater migration patterns resulting from BNE Energy, Inc.'s proposed activity?

A. A geohydraulic study is needed to provide the data for a correct analysis. However, to illustrate the potential, I looked at BNE Energy Inc.'s Exhibit G, which showed 8.36 acres are to be disturbed as stated on page 2-1 of Zapata Inc.'s November 2010 Storm water Management Plan. In the Zapata, Inc. report, calculations in Exhibit H the soil types 84B, 84C, 84D are identified as 100% pervious soils in the cleared disturbed areas. Zapata Inc.'s Area 2, Area 3 and Area 4 divisions where disturbance occurs as shown in Exhibit JBS-5 compiled from Zapata's sheet C-300 showing Zapata's area of designations and Exhibit JBS-6 compiled by EVA from three Zapata sheets, C-201, C-202 and C-203 and showing the EVA soil slope pattern over the declared pervious soils. Also shown in color is Zapata sheets C-300 magnified and super imposed on Zapata sheets C-201, C-202, and C-203 showing the proximity of the U.S. Cap and Jacket Brownfield site and building to the proposed disturbed areas which is as close as 200 feet from the disturbed area.

The U.S. Geological Survey in Exhibit JBS-7 shows annual rainfall in Prospect, Connecticut area as above 48 inches per year on the average. Thus about 11 million gallons could enter the aquifer and drive the pollutant plum further north and east into residential areas (48 inches per year divided by 12 inches per feet times 8.36 acres times 43,560 $feet^2$ per acre times 7.48 gallons per $feet^3$ equals about 11 million gallons per

year). Surface runoff patterns and amounts may vary locally and site specific studies should be made.

Q. What is your recommendation?

A. First, the Brownfield's U.S. Cap and Jacket Targeted Assessment on 7.4 Section 7.2.1 (Pages 7-4 to 7-6) for additional soil and groundwater investigations and a groundwater monitoring program per Section 7.2.2 should both be done (pages 7-4). Both Section 7.2.1 and 7.2.2 are contained in Exhibit JBS-8. These studies should be done after the final foundation designs are completed. Second, that such studies should include an evaluation of the potential risks of the planned activity at the site and whether there are practical and feasible steps to eliminate such risks. Third, that such studies should propose a plan, if practical and feasible, to eliminate such risks. Fourth, if practical and feasible means are found to eliminate the risks of the planned activity, that the studies include the steps recommended to implement such means. Fifth, that the groundwater monitoring program should begin with a baseline evaluation of the current extent of the contamination at the site and in the adjoining neighborhood and should be on-going until all stakeholders are in agreement that monitoring can cease; Sixth, that the Siting Council should either select or approve of the firm or firms to do the studies and monitoring and that all work product of such firm or firms should be available to all parties and stakeholders. Seventh, that BNE Energy, Inc. should establish and maintain a pollution control bond. Eighth, that no construction activity be permitted to commence until the foregoing steps have been undertaken.

Q. Does this conclude your testimony?

A. Yes.

RESUME OF

JOHN B. STAMBERG, P.E.

EDUCATIONAL BACKGROUND

1967	M.S. (Sanitary Civil Engineering), Stanford University
1966	B.S. (Civil Engineering), University of Maryland

PROFESSIONAL EXPERIENCE

1981-Present **Energy Ventures Analysis, Inc.**
Vice President and Principal

Mr. Stamberg is responsible for directing Energy Ventures Analysis, Inc. (EVA) engineering studies with respect to air and water pollution control, mine engineering control, building inspection for environmental hazards such as asbestos and lead associated with full or partial demolition of buildings or other facilities, clean up or removal of contaminated soils, and other civil and energy engineering activities.

Mr. Stamberg is responsible for all technical and economic feasibility studies, engineering designs and environmental control evaluations. Recognized expert on wastewater treatment, solid waste sewage sludge and hazardous waste disposal and air pollution control technologies. Has developed innovative wastewater treatment designs for industrial facilities and municipalities. Directing studies examining potential hazard waste handling technology alternatives to landfilling for hazardous wastes generated and land application of sewage sludge.

Mr. Stamberg has conducted research, pilot scale demonstration and was the process designer for a 10 MGD wastewater to EPA drinking water standard recycle plant using DAF and activated carbon in Louisiana to treated and recycle wastewater to a major paper mill to stop the declining levels in the Sparta Aquifer. Also, Mr. Stamberg has developed and was the process engineer to treat groundwater with tannin and lignin to meet color standards and reduce tri halo methane and halo acetic acids.

Mr. Stamberg is responsible for all asbestos and lead control analyses since mid-1970's. Has conducted numerous inspections on commercial properties, industrial facilities and mining operations and provided full range of asbestos and lead control services associated with facility demolition or reconstruction. These services include: onsite sampling and analysis for asbestos materials; development of engineering plans,

specification, criteria and corporate policies for asbestos enclosure/encapsulation/removal; acted as a government liaison to present plans for asbestos/lead control, to apply for all required government permits, and to obtain approval for all plans; conducted asbestos/lead control training courses for employees; and acted as owners representative in all phases of asbestos/lead removal projects from bidder qualification/selection to assurance of full OSHA compliance on time completion.

Mr. Stamberg has developed capital and O&M cost for a variety of natural gas compression options for LDC's, utilities and EPRI, including fixed speed and variable speed electrical compression, combustion turbine compression, and reciprocating compression, as well as conversion of existing reciprocating units to electric drive. He has performed numerous studies on the pipeline delivery capacity and cost of looping or adding compression to existing interstate and intrastate pipelines. He has prepared feasibility studies of routes, compression needs, and cost of supplying electric utilities and industry switching to natural gas. He has performed on-site evaluations of booster compression needed to supply new combustion turbines with the higher pressure demands of these units. He has engineered energy recovery systems for greenhouse heating using natural gas compressor drive exhaust, and evaluated compressed air energy storage and recovery to generate electricity.

Mr. Stamberg has also conducted a variety of studies of utility and industrial boiler and combustor facilities for fuel choice, efficiency, and environmental control. He has assessed a broad range of combustion, cogeneration, and environmental control systems. He recently completed work for EPRI on utility derating caused by switching pulverized coal boilers from Illinois Basin coal to various types of low-sulfur coals. He has prepared the industrial coal demand analysis for COALCAST reporting service using his knowledge of boiler engineering, boiler capital cost, and boiler operating cost.

Mr. Stamberg has prepared feasibility studies, design cost evaluations, labor productivity studies and equipment inspection for the coal mining industry. His experience with underground mining covers conventional sections, continuous miners, mixed sections, and longwall having a variety of seam and roof conditions. His surface mining experience covers contour, open pit and mountaintop surface mining with large capacity draglines, shovels, or conventional truck/loader equipment. He has prepared feasibility studies, designed and inspected coal preparation facilities from those with simple coarse circuit technology to those with complex multi-circuited systems. He has conducted a variety of site investigations and sampling programs and prepared a variety of environmental assessments, reclamation studies and permit applications for the mining industry. He has used his knowledge to provide capital and operating costs for use in EVA's economic and financial

analysis of mining and reclamation plans, coal price analyses, coal competition evaluation studies, and coal company acquisition studies.

1974-81 **Energy and Environmental Analysis, Inc.**
Director

In addition to his responsibilities for water pollution control, Mr. Stamberg managed both the reactivation and the conversion from natural gas or coal of industrial boilers. This work included design specifications and purchase of coal unloading, storage, ash handling, and reclaiming equipment. He was responsible for structural inspections and analysis of the boiler buildings, coal silos, and duct and stack supports. He has evaluated a second generation fluidized bed combustor (FBC) using petroleum coke as a fuel to support process steam and electricity to a petrochemical process.

Mr. Stamberg has designed a mineral processing system for Virginia Vermiculite, Ltd. which utilizes an integrated series of hydraulic sizers, classifiers, screenings, cyclones, rock floatation, vermiculite floatation, tables, vacuum filtration, and drying. He has also performed engineering and economic feasibility studies on five locations for a centralized coal cleaning and unit-train tipple in West Virginia. He has performed various coal cleaning studies for DOE, and reviewed technological developments at various DOE labs/facilities involving conventional cleaning to solvent refined coal (SRC).

Mr. Stamberg has directed and participated in a variety of environmental and permit studies for coal and mineral mining activities. He has conducted numerous site visits, prepared permit applications and prepared environmental impact statements or assessments on a variety of coal mines in most major coal producing states of Northern, Central and Southern Appalachia as well as in the western states of Colorado and Wyoming. He has done similar studies for phosphate rock, sand and gravel, limestone, and vermiculite mining industries.

1972-74 **U.S. Environmental Protection Agency**
Office of Air and Water Programs
Chief, Municipal Technology Branch

Formulated policies and regulations required to implement PL92-500. Responsible for area-wide planning, facilities planning, effluent guidelines for municipal pollution control, operation and maintenance of advanced waste treatment facilities, combined sewer control, urban run-off, and cost-effectiveness analysis.

1967-71 **U.S. Environmental Protection Agency**
Office of Research and Development
National Environmental Research Center
Chief, Biological Treatment

Developed research objectives; designed and operated pilot- to full-scale plants to achieve various effluent objectives using a variety of biological or biological/chemical treatment techniques. Did engineering development work which was the basis for design for the District of Columbia's 309 MGD advanced waste treatment at Blue Plains and numerous other advanced waste treatment plants.

HONORS

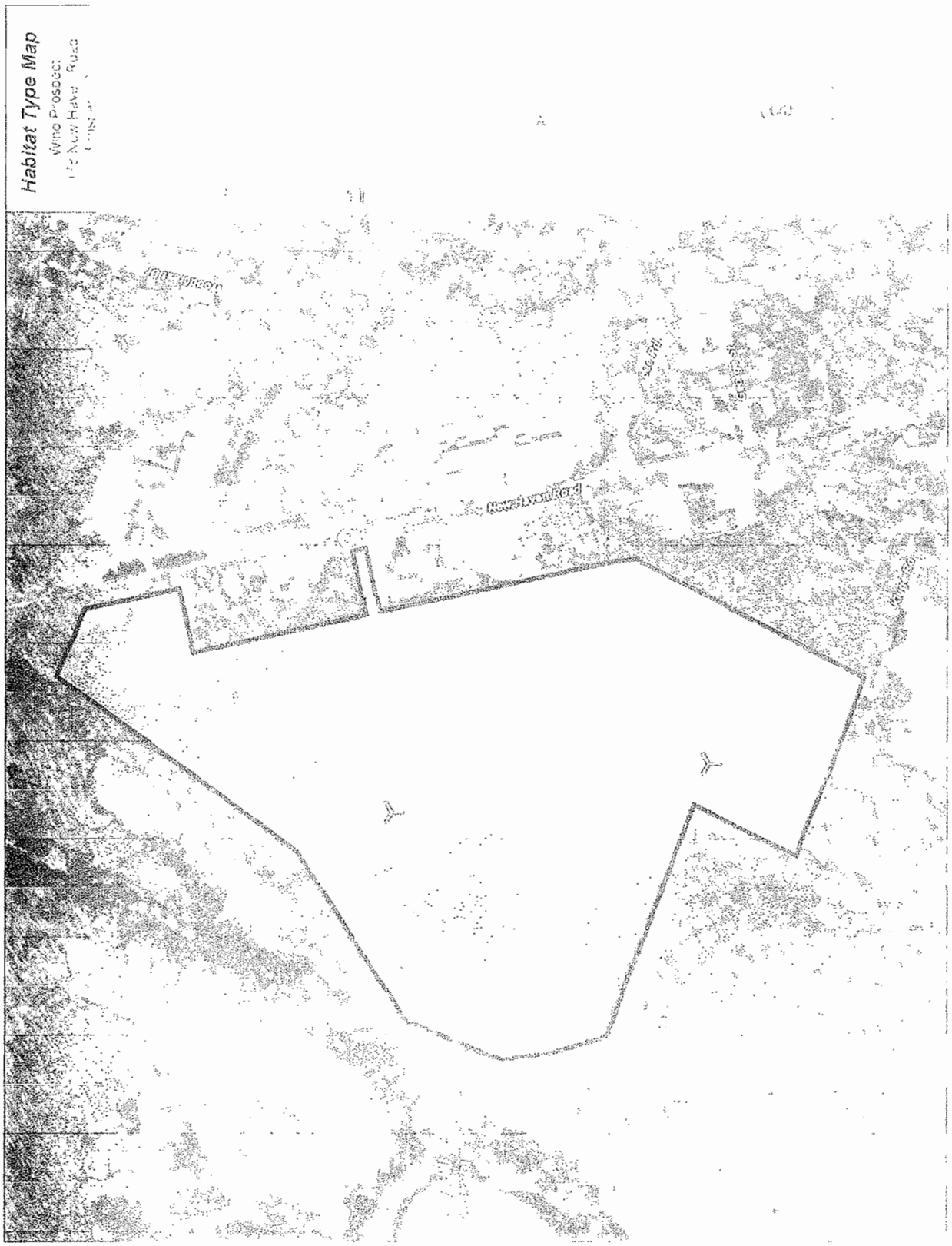
Chi Epsilon National Civil Engineering Honor Fraternity
Pi Mu Epsilon Honorary Mathematical Fraternity
Phi Kappa Phi Honor Society
Phi Theta Kappa National Honorary Scholastic Society
U.S. EPA Bronze Medal for Commendable Service

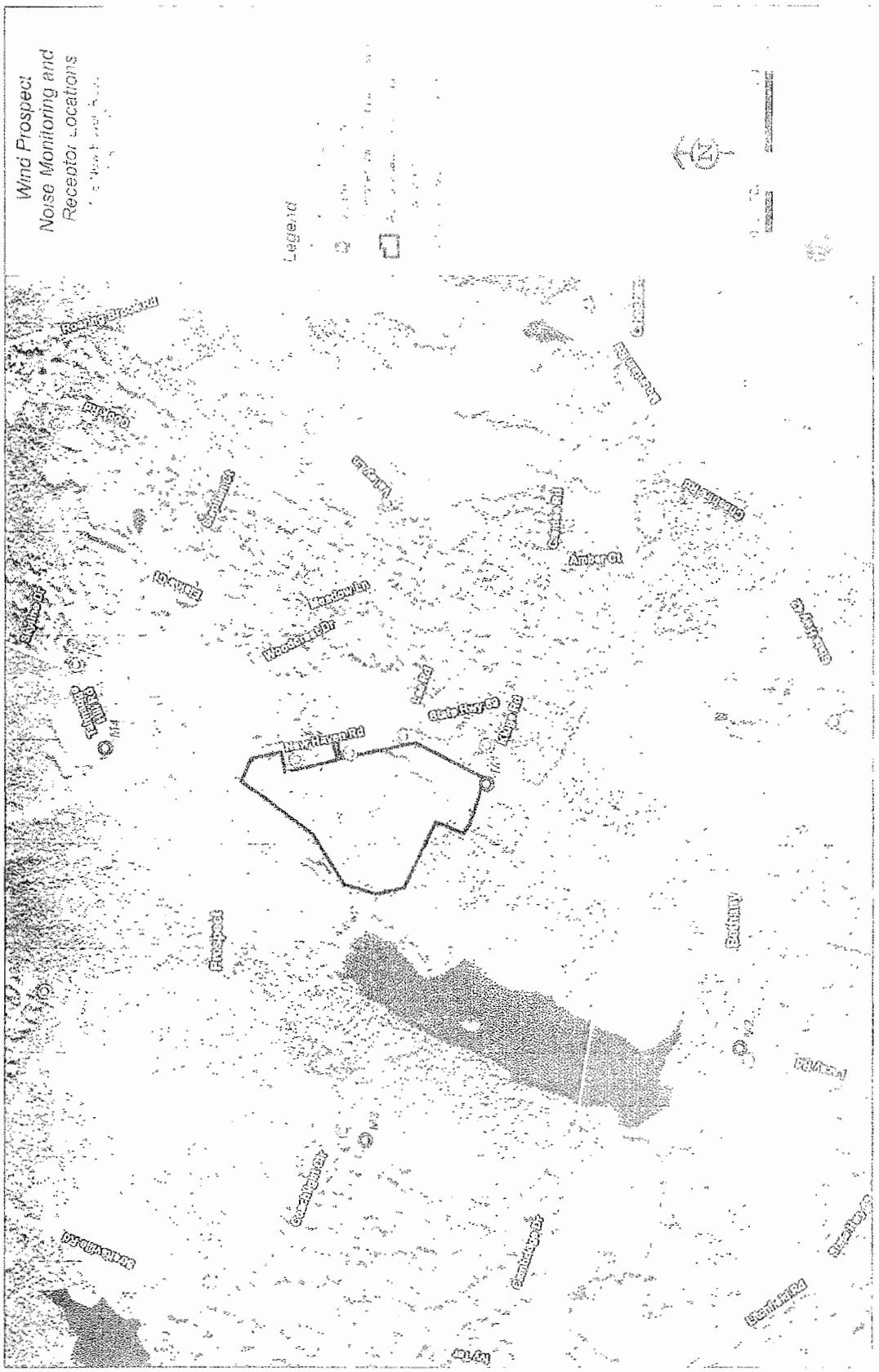
PROFESSIONAL REGISTRATION AND MEMBERSHIPS

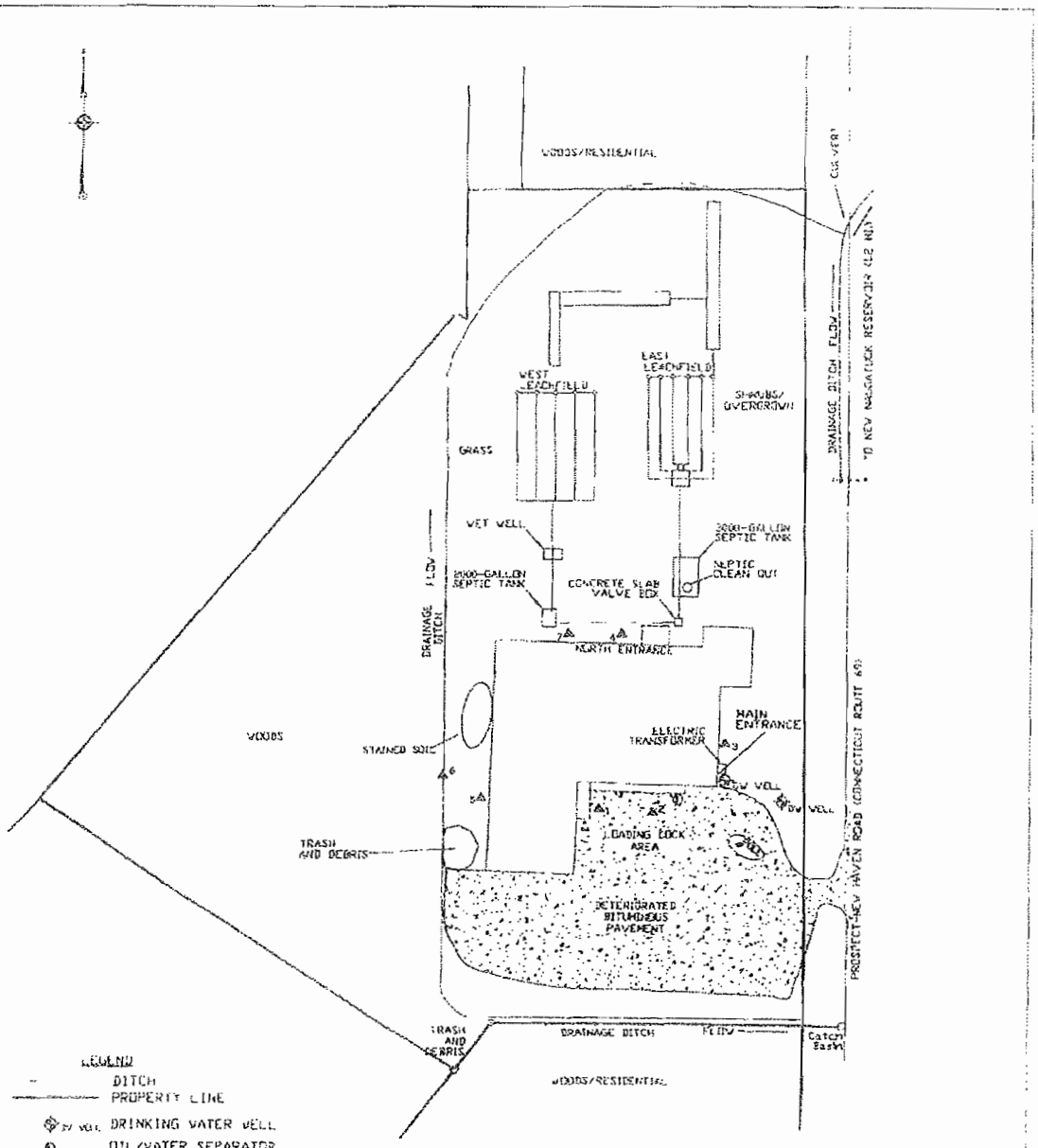
Registered Professional Engineer, Louisiana
Water Pollution Control Federation
Federal Water Quality Association

PATENTS AND PUBLICATIONS

Holder of Wastewater Treatment Systems and Mineral Processing Patents Pending and has 17 technical publications.


Habitat Type Map
Wind Prospect
Old New Haven Road


Wind Prospect
Noise Monitoring and
Receptor Locations
Legend
M1
M2
M3
M4



SITE PLAN AND SURROUNDING PROPERTIES

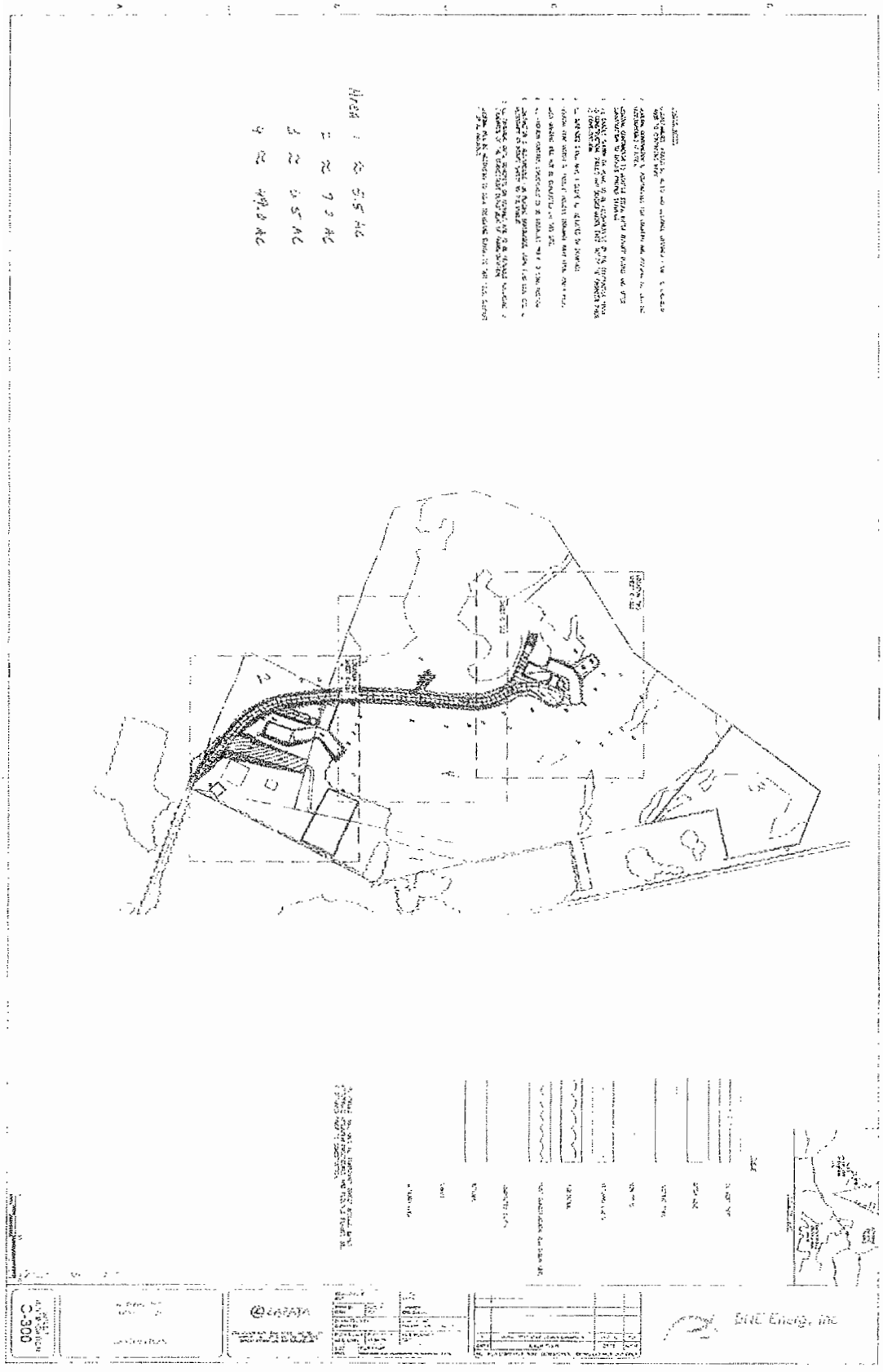
U.S. CAP & JACKET SITE

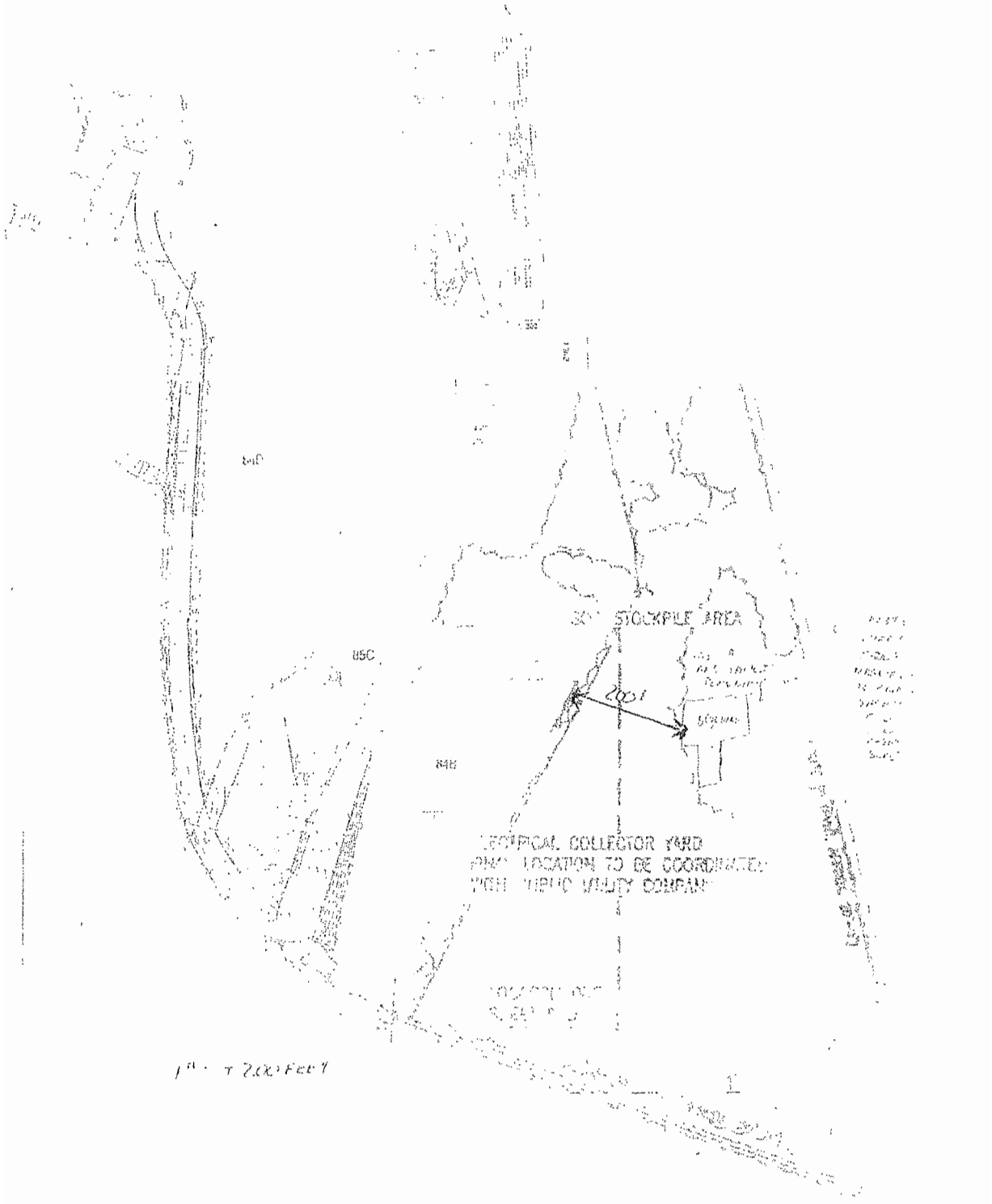
PROSPECT, CONNECTICUT

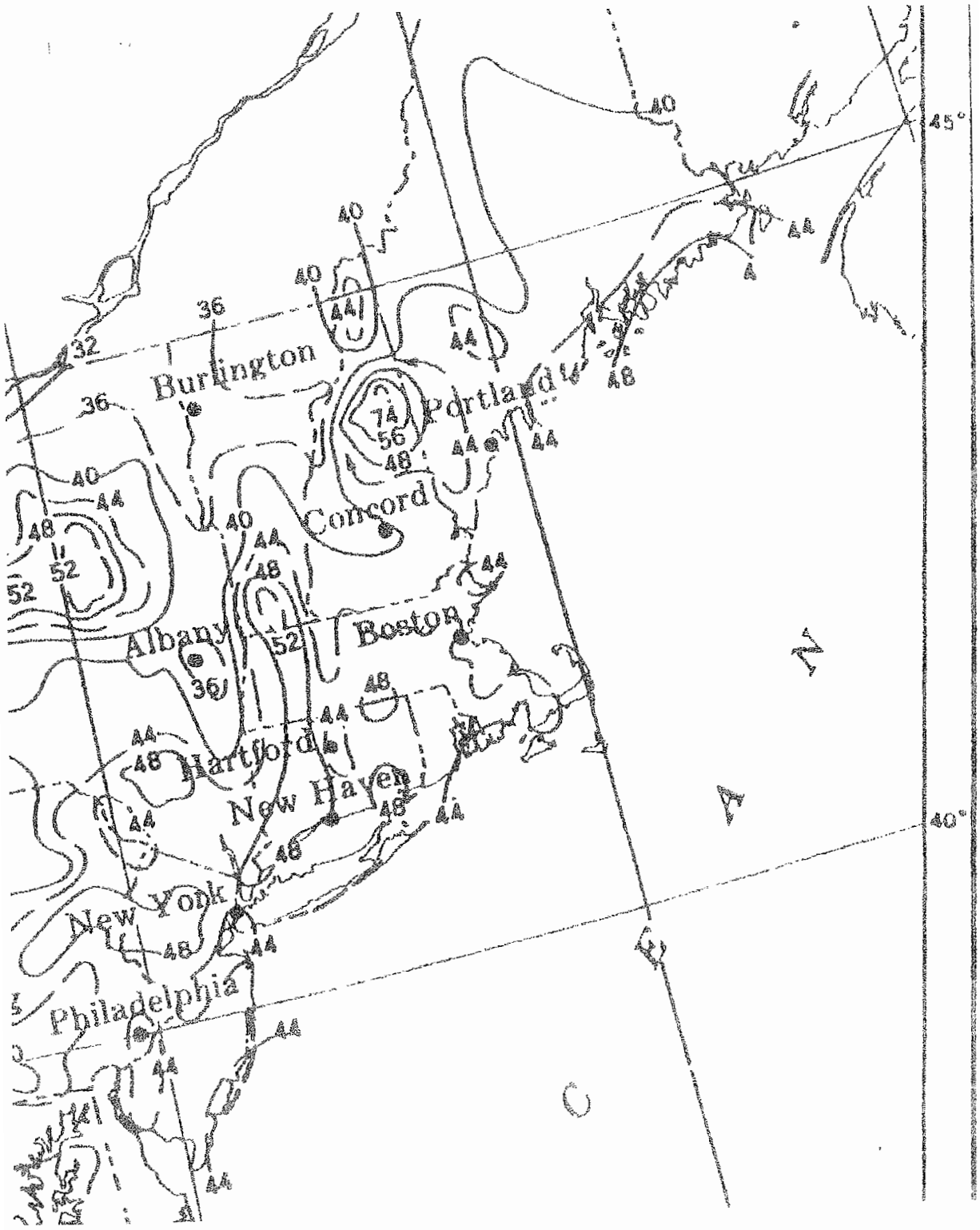
FIGURE 1-2

DRAWN BY:	D.W. MACDOUGALL	REV.:	0
CHECKED BY:	S. VETERE	DATE:	APRIL 2003
SCALE:	NOT TO SCALE	ACAD NAME:	DWG\4128\1190\FIG 1-2.DWG

TETRA TECH NUS, INC.
55 Jonspin Road Wilmington, MA 01887
(978)658-7899




STOCKPILE AREA
TYPICAL COLLECTOR YARD
1" = 200 Feet


Burlington
Portland
Concord
Albany
Boston
Hartford
New Haven
New York
Philadelphia
45°
40°
A
C

wells to facilitate remediation of groundwater in the bedrock aquifer; therefore they should be permanently closed in a manner consistent with state and federal regulations. Specifications developed for closure of the drinking water wells have been submitted under separate cover

7.1.5 Removal of the Site's Stormwater Drainage System

During the 2001 EPA removal action VOC contamination was detected in surface water samples collected from the drainage ditch located along Route 69, indicating that the Site's stormwater drainage system is providing a preferential pathway for the horizontal migration of contaminated groundwater and its subsequent discharge to surface waters. Excavation, removal, and disposal of remaining drainage system components are recommended to eliminate this contaminant migration pathway. Once the remaining drainage structures are removed, the excavation should be backfilled with low permeability materials to minimize contaminant migration along the excavated area.

7.2 Recommendations for Site Redevelopment

The following recommendations have been developed for the environmental investigations and implementation of remedial measures likely to be required for redevelopment of the Site.

7.2.1 Additional Soil and Groundwater Investigations

Additional subsurface investigations are recommended at the Site to more completely characterize the nature and extent of residual of soil and groundwater contamination and evaluate the requirements for remedial actions necessary to bring the Site into compliance with remedial objectives established in the CTDEP RSRs. The goal of the additional investigations is to provide sufficient information with which to further develop a conceptual site model that describes the nature and extent of residual soil and groundwater contamination, contaminant migration pathways, and exposure risks to potential human and environmental receptors. If the results of these investigations determine that further remedial actions are warranted to address residual soil and/or groundwater contamination, the conceptual site model would be the basis for the development and evaluation of alternative remedial actions (Section 7.2.3).

Areas of the Site in which additional subsurface investigations are recommended include the loading dock area, near the main and north building entrances, the area between the one-story building and Route 69, and the area within the building footprint. Although the recent EPA removal action eliminated several sources of VOC and ETPH contamination within the loading dock area, analysis of samples collected during the removal action indicate that residual soil contamination remains on the Site at concentrations that exceed I/C DECs. Analysis of groundwater samples collected during the December 2000 PA/SI, TtNUS's BTSA investigation, and previous site investigations indicate that at least one contaminant plume containing VOCs and metals is present on the Site. Contamination continues to migrate off site and impact adjacent downgradient residential properties.

An additional subsurface investigation of the loading dock area is recommended to determine the extent of residual VOC, ETPH, and metals contamination in soil and groundwater. A minimum of four soil borings should be advanced in this area using a drive-and-wash technique to avoid contaminating subsurface soil samples with VOCs that are likely to be present in shallow groundwater. Continuous soil sampling of each boring should be performed at 2-foot depth intervals at each boring, with each sample field screened for organic vapors using a PID. Soil borings should be advanced to the depth at which organic vapors are no longer detected by field screening. At least one soil sample per each five feet of depth should be collected for laboratory analysis of VOCs, ETPH, and metals. Four of the soil borings should be completed as 2-inch I.D. monitoring wells.

Review of documents pertaining to machining operations that formerly occupied the Site indicates that the disposal of spent acids or other wastes is likely to have occurred in a former leaching pit located somewhere west of the building. No visual evidence of the location of this pit was observed during the BTSA investigation. Recovery of spent solvents and waste oil took place in the southern portion of the building near the loading dock. An additional attempt should be made to find the former leaching pit. Once the pit location is identified a groundwater monitoring well should be placed there. Two to three soil borings and 2-inch I.D. groundwater monitoring wells should be placed in the southern portion of the building's footprint to determine if the disposal and solvent/waste oil recovery operations contaminated soil and groundwater beneath these areas of the building.

Areas of the Site where additional groundwater monitoring is recommended include the north building entrance (two soil borings and one monitoring well), the main building entrance (one soil boring and one monitoring well), the area between the loading dock and the two on-site water supply wells (two soil borings and one monitoring well), and the area between the east side of the building and Route 69 (three soil borings and three monitoring wells). At least one well in the area between the building and Route 69 should be screened in the bedrock aquifer.

7.2.2 Groundwater Monitoring Program

Semi-annual collection and analysis of groundwater samples is recommended at the Site to evaluate the migration and attenuation rates of groundwater contaminants on the Site. Groundwater samples should be collected using the EPA low-flow sampling technique (EPA SOP No. GW-001) and analyzed for VOCs, ETPH, and metals. The information from the groundwater monitoring program will determine if additional remedial actions are required to bring the Site's groundwater into compliance with the CTDEP RSR groundwater criteria.

7.2.3 Remedial Investigation/Feasibility Study (RI/FS)

If additional investigation of soil and groundwater at the Site, as described in Sections 7.2.1 and 7.2.2, indicates that remedial actions are warranted, an RI/FS should be conducted to evaluate and select the most appropriate remedial alternative(s) to reduce concentrations of soil and groundwater contaminants to levels consistent with risk-based criteria established in the CTDEP RSRs. This section provides a brief description of the scope of the recommend RI/FS.

7.2.3.1 Remedial Investigation (RI)

The goal of the RI is to obtain data on the site's hydrogeological and geological conditions and the nature and extent of contamination so that the conceptual site model can be refined sufficiently to select the most appropriate remedial alternative. The RI will be based on information obtained during previous and recommended additional subsurface investigations, and on investigations that would be performed during the RI to obtain specific hydrogeological and geological data. The investigations that would be performed during the RI would determine the hydraulic conductivity of the surficial and bedrock aquifers and the fracture patterns and hydraulic connections in the bedrock. Collection and analysis of additional soil, groundwater,