

September 17, 1986

Mr. James A. Flood
Bovano of Cheshire
P.O. Box 230
Cheshire, CT 06410

Copy to Eileen Genn 9/22/86

RE: TRC Project No. 2661-N51-00
Soil Sampling Results

Dear Mr. Flood:

This letter serves as TRC's report of the soil samples collected and analyzed for trichloroethylene (TCE) and copper. Sampling was conducted on two separate days and is explained as follows.

On July 1, 1986, a TRC geologist sampled the soil in the chemical storage area. The final composite sample taken represented five (5) individual samples, one from each corner of the excavation and one from the center using a laboratory cleaned stainless steel bowl and spoon. The samples were taken from the bottom of the excavated area, which is ten (10) inches below ground level. Once the soil was thoroughly mixed, the soil was placed into 30 milliliter reaction vials and taken to TRC's laboratory in East Hartford, Connecticut.

On August 28, 1986, a TRC geologist sampled the soil from the bottom of the re-excavated copper sludge lagoon, and collected a background soil sample located upgradient of monitoring well B. TRC used a four (4) inch inside diameter hand auger to collect both samples. These individual samples were thoroughly mixed and placed into one (1) liter glass jars. TRC performed and E.P. Toxicity Test for copper on both samples. The sampling of the copper sludge lagoon was required by the Connecticut State Department of Environmental Protection (DEP) due to the results of the previous copper samples collected during the initial excavation on December 18, 1985. The results of the E.P. Toxicity Tests and TCE analysis are summarized in Table 1.

These data show that the concentrations of TCE and copper have significantly decreased when compared to the initial soil sample results.

Since the usage of TCE at Bovano was discontinued in 1982, it appears the concentration of TCE in the ground water has significantly decreased as indicated in Table 2. The results presented in Table 2 are representative of ground water samples collected from monitoring well B next to the source of the TCE contamination.

Results of copper analysis of ground water completed in 1982 show levels of 10.2 mg/l in monitoring well B. It is unknown if copper concentrations have improved at well B, however, monitoring well A located down gradient of the sludge lagoon revealed copper concentrations of only 0.09 mg/l. This suggests that copper contamination was limited only to the immediate source proximity (well B) and relatively immobile as stated in the November 1982 TRC report to Bovano Industries.

It is TRC's recommendation that the following steps be conducted by Bovano Industries in order to remain in compliance with DEP regulations:

- The TCE storage area should have a new concrete floor installed to prohibit infiltration.
- Initiate a semi-annual ground water monitoring program at wells A, B and F shown in Figure 1. The monitoring program will help determine if the existing conditions at Bovano Industries will continue to improve.
- A meeting be held including representatives of Bovano Industries, TRC and the DEP to discuss the above recommendations and decide whether these remedial techniques are acceptable or make revisions as necessary.

Although the above recommended steps are subject to the DEP's approval, TRC feels that the DEP should review and consider Bovano Industries as a unique case, and when the above steps are implemented would satisfy all environmentally concerned parties.

If you should have any questions or comments regarding this report, please do not hesitate to call me or Curt Kraemer.

Very truly yours,

TRC ENVIRONMENTAL CONSULTANTS, INC.



Andrew R. Zlotnick
Assistant Project Scientist

ARZ:sms

TABLE 1
SUMMARY OF ANALYTICAL RESULTS

Sample No.	SS-1	SS-1	SS-2	SS-2	SS-3
Sample Date	05/07/85	07/01/86	12/18/85	08/28/86	08/28/86
Laboratory	DEP	TRC	TRC	TRC	TRC
Depth	Surface	0.8'-1.0'	7'-7.5'	10.5'-11'	2'-3'
Units	µg/g	µg/g	µg/g	µg/g	µg/g

PARAMETER

Trichloroethylene	70	1.57	-	-	-
E.P. Toxicity Copper	-	-	10.6	1.13	<.08

DEP = Connecticut State Department of Health, Environmental Research Laboratory

TRC = TRC Laboratory

SS-1 = Chemical Storage Area

SS-2 = Copper Sludge Lagoon

SS-3 = Upgradient Background Sample

- = Not Analyzed

TABLE 2

SUMMARY OF TCE CONCENTRATIONS IN GROUND WATER

Sampling Date	09/82	06/84	05/85
Laboratory	TRC	SCC	DEP
Units	µg/l	µg/l	µg/l

PARAMETER

Trichloroethylene	1,220	34	6.1
-------------------	-------	----	-----

TRC = TRC Laboratory

SCC = South Central Connecticut Regional Water Authority

DEP = Connecticut State Department of Health, Environmental Research Laboratory

Note: The Connecticut State Department of Health Services has issued an actional level of 25 µg/l for Trichloroethylene and referenced from the Public Health Code Regulation 19-13-B102

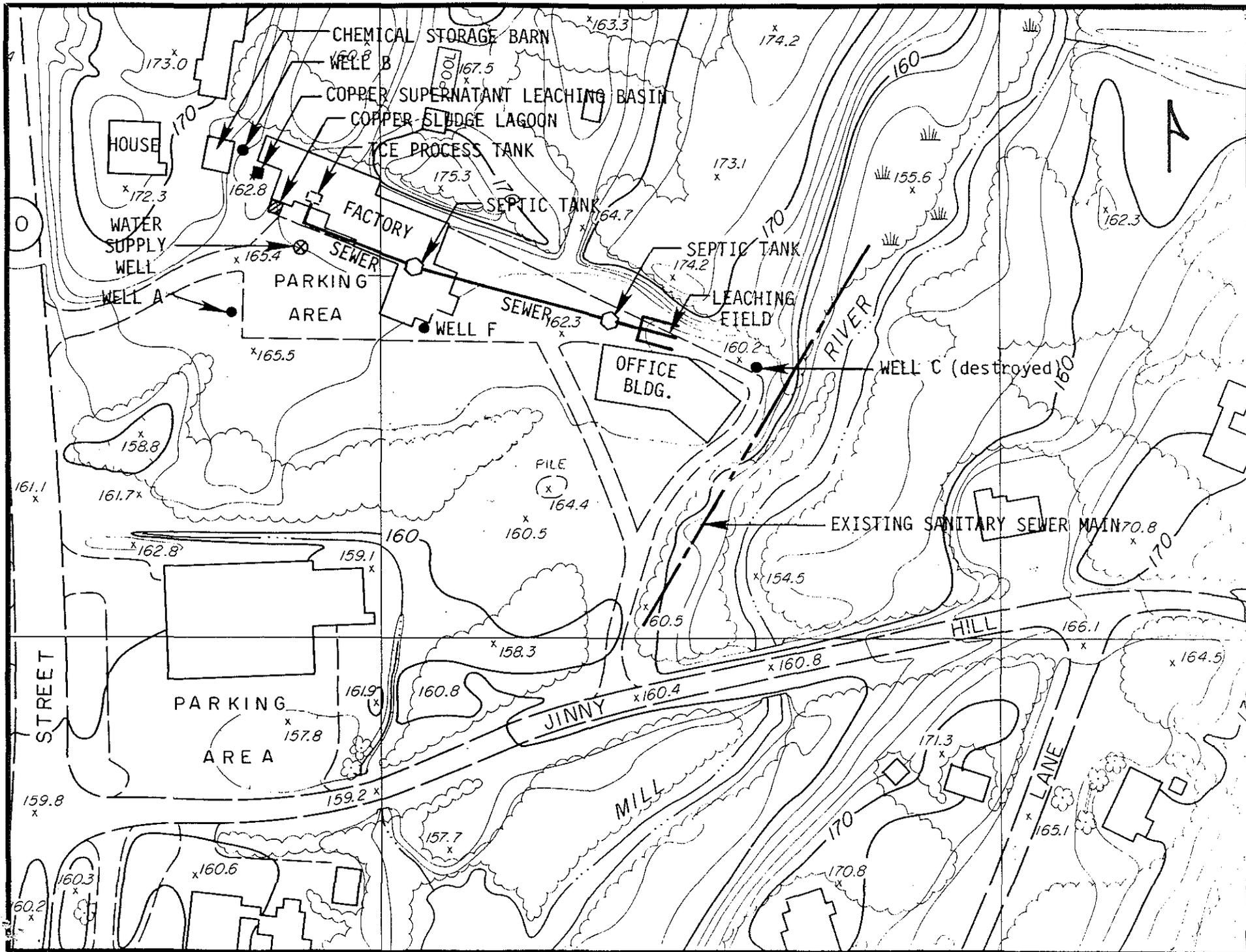


Figure 1. General Site Map - Bovano Industries, Cheshire, Connecticut.