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Task 2 Vol 3 Investigation
Final

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FINAL TASK 2 REPORT
INVESTIGATION OF THE FORMER COAL GASIFICATION SITE
DANSVILLE, NEW YORK
NEW YORK ELECTRIC & GAS CORPORATION

VOLUME III
TECHNICAL REPORT

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TRC Project No. 3438-N61

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THE TASK 3 FIELD WORK PLAN
FORMER DANSVILLE COAL GASIFICATION PLANT
FOR
NEW YORK STATE ELECTRIC & GAS CORPORATION

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1.0 INTRODUCTION

This work plan describes in detail the plan to conduct the various field tasks necessary during the Task 3 investigation at Dansville. Included in this plan are the schedules, locations and numbers of samples, and procedures to be employed in sampling site soils. Site maps are included to illustrate the various sampling locations. The program schedule is found at the end of this plan.

2.0 FIELD MOBILIZATION

Contingent upon approval of this plan by NYSEG, TRC will mobilize to the Dansville site during June, 1988. Field mobilization for Task 3 will be similar to the arrangements made for Task 2.

A field office and staging area will be established in the storage room of the Service Center building where the field crew will have access to a telephone. Sample shipping containers, sample documentation, and all site log books will be maintained by the field personnel in the staging area.

3.0 SURFACE SOIL SAMPLING

Four composite surface soil samples will be collected from the areas shown in Figure WP-1. Areas 1, 2, 3 are unfenced areas which may have been impacted by wastes at the site. Area 1 covers the south lawn. Area 2 covers the ditch channel which may have collected contaminated sediment eroded from the site. Area 3 covers the portion of the former canal which contained purifier wastes below the ground surface. Although Area 4 is within the fenced eastern yard, it covers an area of loose dust with much vehicular traffic. This area may be a source of contaminated fugitive dust.

Composite samples represent areal averages. In order to maintain statistical validity, it is necessary to avoid bias for or against some sub-area which is expected to have the highest levels of contamination within the composite area. Therefore, in this sampling effort, each sampling area will be divided into 12 equal-sized sub-areas and 4 of those sub-areas will be chosen randomly for sampling. A statistically-random number generator will be used to select the 4 sub-areas. Each sub-area will be divided into four quadrants and each quadrant will be sampled with a stainless steel spoon. The aliquots of soil collected will be mixed together in a stainless steel mixing bowl, prior to filling the sample jars.

Each sample will be analyzed for cyanide, selected metals, and organic compounds.

The samples will be logged and numbered according to the following scheme:

Example: DNEXXX8804 6/20/89
where: DN - Dansville
E - Soil sample
X - Relative location - NA
XX - Location - NA
89 - year
04 - Fourth sample location
6/20/89 - Date of collection

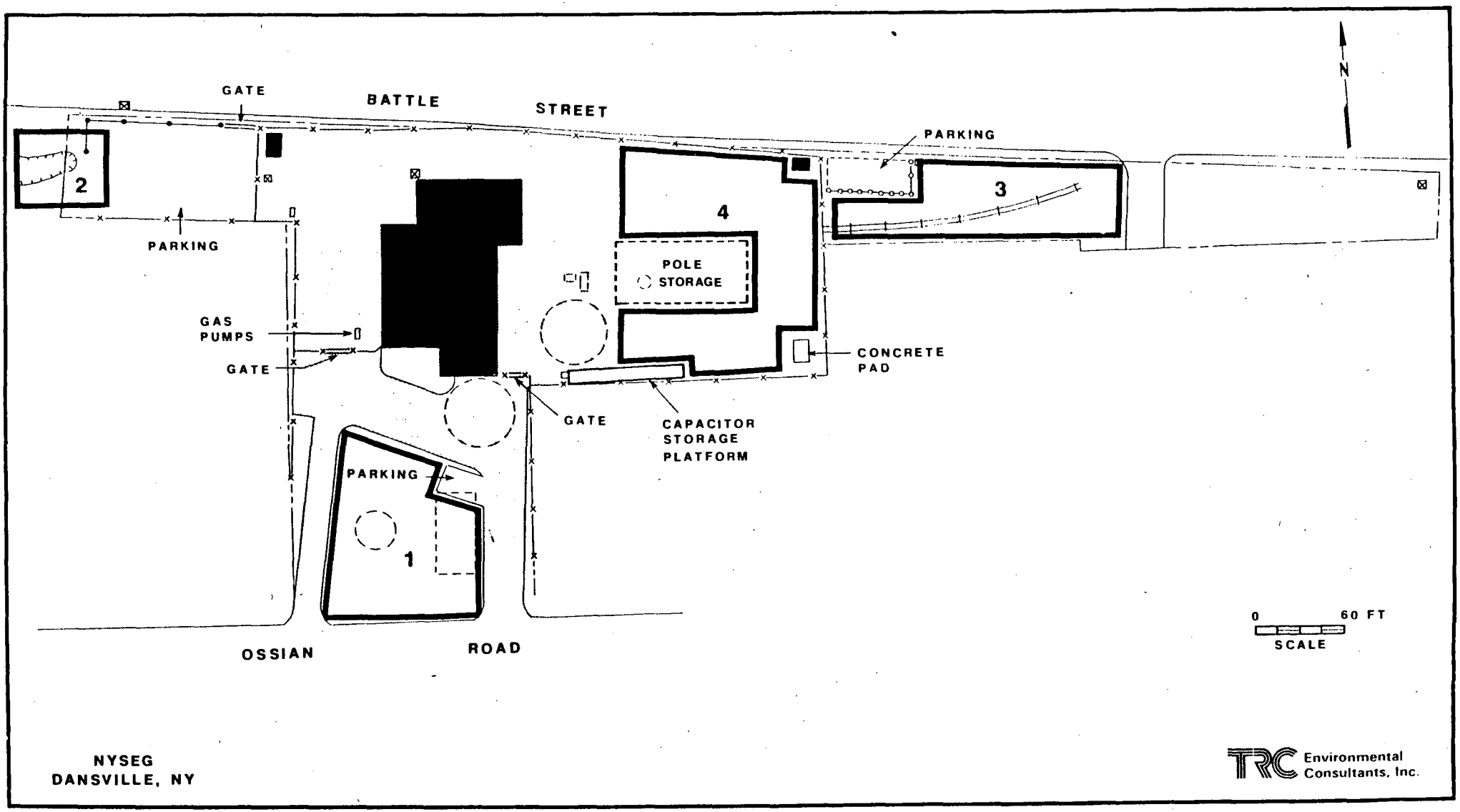

FIGURE WP-1. COMPOSITE SURFACE SOIL SAMPLING LOCATIONS

All soil samples will be preserved in 1-liter glass containers and subjected to chain-of-custody procedures. The following QA/QC samples will be collected during the soil sampling event:

- One field blank per day of sampling.
- One blind duplicate.

4.0 SOIL GAS SAMPLING

Soil gas sampling will be conducted in order to assess the potential of volatile compounds to volatilize from the contaminated ground water and migrate into nearby residential basements. This will be accomplished by sampling the soil gas content at several depths in the vadose zone at three locations: next to test pit TP-20, and next to 2 residences with basements (Figure WP-2).

Soil gas sampling will be conducted by Tracer Research Corporation, of Tucson, AZ (Tracer) under the supervision of TRC personnel. Sampling will begin just outside of the site fence on the west side of test pit TP-20. A hollow steel probe will be driven to the water table (approximately 11 feet) and then retracted to just above the capillary fringe (as indicated by pressure gauge). A sample will be collected from immediately above the capillary fringe. A second probe will be driven to a depth of 8 feet. A third probe will be driven to a depth of 6 feet, approximately the depth of a basement floor.

The 3 gas samples will be analyzed immediately by 2 field gas chromatographs (GC) for the following compounds:

Benzene
Toluene
Trans-1,2 dichloroethylene
Trichloroethylene
Tetrachloroethylene
Vinyl Chloride

Tracer follows a QA/QC program that has been accepted by EPA for use on Superfund sites. This program will be followed at the Dansville site and will include duplicate samples and blanks.

The soil gas profile sampling will be repeated at 2 residences. The first residence tested will be the house just west of the site on Ossian Street, and it will provide data for houses near the site. The second residence is

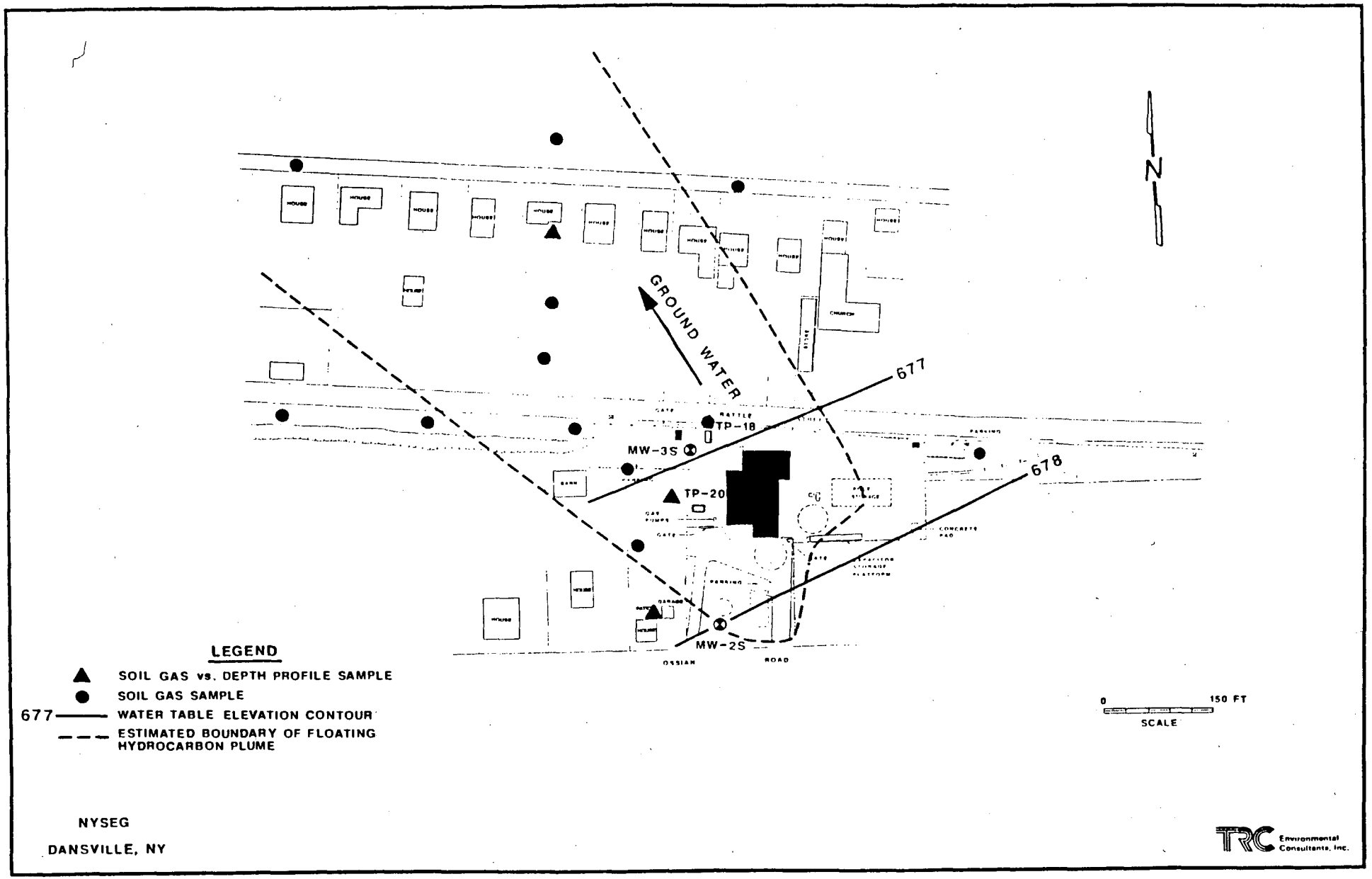

FIGURE WP-2. PROPOSED SOIL GAS SAMPLING LOCATIONS

several hundred feet from the site, and will represent houses in what TRC believes to be the center of the ground water plume (Figure WP-2).

Collecting samples at various depths above the water table will yield an empirical measure of the ability of volatile organics to move up through the soil column. Aromatic compounds are more susceptible to biodegradation than the chlorinated hydrocarbons. Experience has shown that aromatic compounds may be present in significant concentrations immediately above the water table, yet their concentrations in the upper aerated portions of the soil column may be near or below detection limits.

After the optimal depth for detecting soil gas constituents has been determined from the profiles, single samples will be collected from locations distributed so as to delineate the ground water/soil gas plume. The location of the single samples are shown in Figure WP-2. Sampling locations and depths may be changed during the soil gas sampling operations because of information learned from earlier samples. Sampling will be restricted to the 2 private properties mentioned above and along the roads.

5.0 RECORD KEEPING AND DOCUMENTATION

TRC will follow specific record keeping and site documentation procedures to document all soil samples, QA/QC procedures, and site investigation activities. The following logs and documents will be used to accomplish this:

Document	
1. Site Field Logs	Issued to each field team member with a control number on it. These logs are waterproof and will be the prime source of field data.
2. Master Sample Log	A page-numbered bound laboratory notebook that will remain in the site field office to document every sample taken. At the end of each field sampling day, the field operations manager will log in all samples and list those sent to the laboratories with the waybill number.
3. Chain-of-Custody	To track the possession of all samples from field to lab.

TRC will follow specific record keeping and site documentation procedures to document all soil samples, QA/QC procedures, and site investigation activities. The following logs and documents will be used to accomplish this:

4. Site Laboratory Notebook	A page-numbered bound laboratory notebook that will be the responsibility of the field chemist. This notebook will document all analysis, e.g., OVA, HNU, ETC., performed during field screening.
5. TRC Accident Report, Daily First Aid Report, Employer's First Report of Injury, and OSHA 100 Forms	Data sheets attached to the Health and Safety Plan, located in the site field office, that will document any accident occurring at the site during the field investigations.

6. Waybills — Once a shipment of samples is accepted by the courier, all waybill receipts will be maintained in a sealed envelope attached to the Master Sample Log (MSL). Also the MSL will list which samples were shipped under specific waybill numbers.

At the conclusion of field sampling, the site field logs, master sample log and site laboratory notebook will be copied with the copies maintained in the project file at TRC in East Hartford, CT.

6.0 SCHEDULE

Task 3 activities will proceed according to the operations and sampling schedules presented in this section. These schedules are summarized in Table WP-1.

Site operations will commence during June 1989 contingent upon authorization to proceed from NYSEG. The project schedule for the work that will be done is as follows:

Week	Task
0	Written authorization to proceed
2	Site setup
2	Surface soil sampling and soil gas survey.

TABLE WP-1

DANSVILLE SITE
TASK 3 SCHEDULE

TASK	1989 March	June	September	October
Task Authorization	*			
Surface Soil Sampling	*			
Soil Gas Survey		*		
Draft Task 3 Report			*	
Final Task 3 Report				*

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