STATE OF NEW YORK: DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of

MILLER BREWING COMPANY,
CONTAINER DIVISION

Respondent.

INTERIM
ORDER ON
CONSENT

CASE #A701118704

WHEREAS:

1. The New York State Department of Environmental Conservation (the "Department") is responsible for the enforcement of Article 27, Title 13 of the Environmental Conservation Law (the "ECL") of the State of New York.

2. Miller Brewing Company is a corporation organized and existing under the laws of the State of Wisconsin and authorized to do business in the State of New York. Miller Brewing Company has a Container Division (the "Respondent"), which operates a canmaking facility in the Town of Volney, Oswego County (the "Site"). The Miller Container facility is located approximately 1200 feet southeast of the Fulton, New York municipal boundary, approximately 1000 feet northeast of the Oswego River and approximately 900 feet south of New York State Route 481.

3. Respondent had in use a spill containment tank installed near the northwest corner of its facility, which was found at the time of its excavation in the spring of 1986 to have been leaking. Respondent then retained Calocerinos & Spina Consulting Engineers ("C&S") to ascertain the direction of movement of any contaminants and the extent of contamination.

4. Laboratory analyses of ground water samples collected by C&S detected the presence of methylene chloride, 1,1-dichloroethylene, 1,1-dichloroethane, 1,1,1-trichloroethane and 1,1,2,2-tetrachloroethylene ("volatile organics") in monitoring wells installed at the Site.

5. The consulting firm of Malcolm Pirnie, Inc. was retained to further define the extent of the contaminant plume and the direction and rate of travel of the plume. As a result of its investigation, Malcolm Pirnie, Inc. believes it has defined the extent of the plume and has proposed a ground water recovery program to stop the movement of the plume and treat the contaminated ground water within the plume.

6. The Department alleges that the volatile organics detected at the Site are hazardous wastes which constitute a significant threat to the environment, requiring remedial action. The Site has been classified in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as a Class "2" site, Site Code #738029.

7. Pursuant to ECL § 27-1313(3)(a), "whenever the Commissioner finds that hazardous wastes at an inactive hazardous waste disposal site constitute a significant threat to the environment, he may order the owner of such site and/or any person responsible for the disposal of hazardous wastes at such site (i) to develop an inactive hazardous waste disposal site remedial program, subject to the approval

of the Department, at such site, and (ii) to implement such program within reasonable time limits specified in the order".

8. The objective of this Order shall be to implement an Interim Remedial Program ("Interim Program") as described in Paragraph I of this Order. The Department and the Respondent agree that the recovery system described at Paragraph I is an appropriate interim remedial response. If further remedial work is deemed necessary following completion of the Interim Program, either this Order shall be appropriately modified by written agreement signed by both parties or Respondent shall be given an opportunity for a hearing.

9. Respondent, having waived its right to a hearing herein, has consented to the issuance of this Order without any adjudication of fact or law. Respondent's consent to and compliance with this Order does not constitute, and shall not be construed as, an admission of liability of any kind or an admission by Respondent of law or fact or of the applicability of any law to conditions at the Site.

NOW, having considered this matter and being duly advised, IT IS ORDERED THAT:

I. (a) No later than thirty (30) days after the effective date of this Order, Respondent shall install three (3) recovery wells at the locations identified in Exhibit A and commence the operation of the recovery system in a timely manner subject to the terms and conditions of this Order.

(b) Once the three (3) wells are installed and the pump tests are completed, the wells shall be equipped with submersible pumps capable of pumping the required ground water flows. The ground water shall then be treated by an air stripping system to the levels listed in Exhibit B at all times prior to discharge to the sanitary sewer system maintained by the City of Fulton. The system shall be "winterized" for protection during periods of below freezing temperatures.

(c) Sampling taps shall be provided for each of the three recovery wells at the well head. Sampling taps shall also be provided at the inlet and discharge sides of the treatment system.

(d) The procedure for installation, start-up and operation of the recovery system is set forth in the work plan attached as Exhibit C. The ground water sampling protocol and site safety plan to be followed for the Interim Program are attached as Exhibits D and E, respectively.

II. Prior to the operation of the recovery well system,Respondent shall obtain a permit to construct/ certificate to operate an air contamination source. This shall be the only Department permit required for Respondent's operation of the recovery system described at Paragraph I of this Order.

III. Respondent shall obtain written permission from the City of Fulton to use its sanitary sewer system for the disposal of the treated ground water from the recovery

system. Respondent reserves the right to suspend the recovery system and secure an alternate disposal method for the treated ground water as long as such alternate disposal method is in accordance with applicable laws, rules and regulations. The Respondent shall timely notify the Department of its intent to suspend the recovery system and secure an alternate disposal method and obtain written approval for same.

IV. (a) If, at any time, Respondent believes that the interim remedial program has treated the ground water at the Site to acceptable levels, it shall notify the Department in writing and request the Department's consent to turn off the system. If the Department gives its written consent, the recovery system may be shut off. If the Department does not give its consent, or fails to respond within thirty (30) days after receipt of the Respondent's written notice to discontinue, Respondent reserves the right, upon twenty (20) days additional written notice to the Department, to terminate the recovery system.

(b) The Department reserves its right to proceed against the Respondent under applicable law in the event of termination of the recovery system without its consent. Furthermore, nothing contained in this Order shall be construed as barring, diminishing, adjudicating or in any way affecting the Department's right to enforce, at law or in equity, the terms and conditions of this Order against

Respondent, its successors and assigns in the event that Respondent fails to fulfill any provisions hereof.

(c) The Respondent and the Department shall confer periodically to determine what further efforts, if any, are required to address any remaining environmental concerns arising out of Respondent's use of the spill containment tank at the Site. Both the Respondent and the Department reserve their respective rights regarding any additional investigative and/or remedial work at the Site.

V. The Respondent shall retain a third-party professional consultant, contractor and/or laboratory to perform the required technical, engineering and analytical work required by this Order.

VI. The Department shall have the right to obtain for the purpose of comparative analysis "split samples" or "duplicate samples" of all substances and materials sampled by Respondent. The Department shall provide Respondent with the analytical results of any such sampling, after receipt of Respondent's results.

VII. Respondent shall provide notice to the Department of any excavating, drilling or sampling to be conducted pursuant to the terms of this Order at least five (5) working days in advance of such activities. Department representatives may be present on-site during these periods of activity provided they comply with all safety rules.

VIII. Respondent shall permit, upon reasonable notice, any duly designated officer, employee, consultant, contractor

or agent of the Department or the Department of Health to enter upon the Site or areas in the vicinity of the Site which may be under the control of Respondent, and any areas necessary to gain access thereto, for inspection purposes, for making or causing to be made such sampling and tests as deemed necessary, and for ascertaining Respondent's compliance with this Order.

IX. Respondent shall not suffer any penalty under this Order if it cannot comply with any provisions hereof because of an act of God, war, strike, riot, or other condition as to which negligence or willful misconduct on the part of Respondent was not a proximate cause; provided, however, that Respondent shall immediately notify the Department in writing when it obtains knowledge of any such condition and request an appropriate extension or modification of the provisions hereof.

X. Respondent shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless for all claims, suits, actions, damages and costs ("losses") of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Order to the extent that negligent acts or omissions or willful misconduct of Respondent, its directors, officers, employees, servants, agents, successors or assigns are the proximate cause of the losses.

XI. The effective date of this Order shall be the date it is signed by the Commissioner.

XII. The terms of this Order shall not be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers, either at common law or as granted pursuant to statute or regulation.

XII. The failure of Respondent to comply with any provision of this Order shall constitute a default and a failure to perform an obligation under this Order.

XIV. Nothing contained in this Order shall be construed as barring, diminishing, adjudicating or in any way affecting (1) any legal or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against anyone other than Respondent, its directors, officers, employees, servants, agents, successors and assigns; (2) the Department's right to enforce at law or in equity the terms and conditions of this Order against Respondent, its directors, officers, employees, servants, agents, successors and assigns in the event that Respondent shall fail to fulfill any of the provisions hereof; and (3) the Department's right to bring any action at law or in equity against Respondent, its directors, officers, employees, servants, agents, successors and assigns with respect to areas or resources that may have been affected or contaminated as a result of the release or migration of hazardous wastes from the Site or from areas in the vicinity of the Site. Nothing herein shall be construed as affecting the Department's right to commence any action or proceeding

to which it may be entitled in connection with, relating to, or arising out of Respondent's disposal of hazardous waste at the Site.

XV. Unless otherwise agreed in writing, all correspondence with respect to the subject matter of this Order between the signatories to it shall be as follows:

(a) Respondent:

1. One copy to: Bond, Schoeneck & King, One Lincoln Center, Syracuse, New York 13202, Attention: Barry R. Kogut, Esq.

2. One copy to: Miller Brewing Company Container Division, PO Box 400, Fulton, New York 13069, Attention: Larry Messina.

(b) Department:

1. Two copies to the Division of Hazardous Waste Remediation, Room 212, 50 Wolf Road, Albany, New York 12233, Attention: Michael O'Toole, P.E., Director.

2. One copy to the Division of Environmental Enforcement, Room 415, 50 Wolf Road, Albany, New York 12233, Attention: Deborah Christian.

3. Two copies to the New York State Department of Environmental Conservation, Region 7, 7481 Henry Clay Boulevard, Liverpool, New York 13088, Attention: Regional Director.

4. One copy to the New York State Department of Health, Bureau of Environmental Exposure Investigation,

2 University Place, Albany, New York 12237

Attention: Ronald Tramontano.

XVI. No informal advice or guidance by the Department's officers, employees or representatives upon any submittals shall relieve the Respondent of its obligation to obtain written approval of the same.

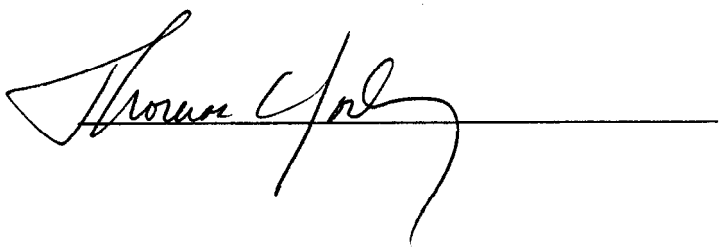
XVII. The provisions of this Order shall be deemed to bind Respondent, its successors and assigns.

XVIII. If for any reason Respondent desires that any provision of this Order be changed, Respondent shall make timely written application to the Commissioner, setting forth reasonable grounds for the relief sought. The Commissioner shall not unreasonably deny such requests.

XIX. The provisions hereof shall constitute the complete and entire Order between the Respondent and the Department concerning the Site. No terms, conditions, understandings or agreements purporting to modify or vary the terms hereof shall be binding unless made in writing and subscribed by the party to be bound.

DATED: Albany, New York
January 22, 1988

THOMAS C. JORLING
COMMISSIONER
New York State Department of
Environmental Conservation



CONSENT BY RESPONDENT

Miller Brewing Company, Container Division, without any admission of law or fact, waives its right to a hearing herein as provided by law, and consents to the issuing and entering of the foregoing Order, and agrees to be bound by the provisions, terms and conditions hereof.

MILLER BREWING COMPANY, CONTAINER DIVISION

By: _____

Title: DANIEL P. DOCKERY ~~Assistant Secretary~~

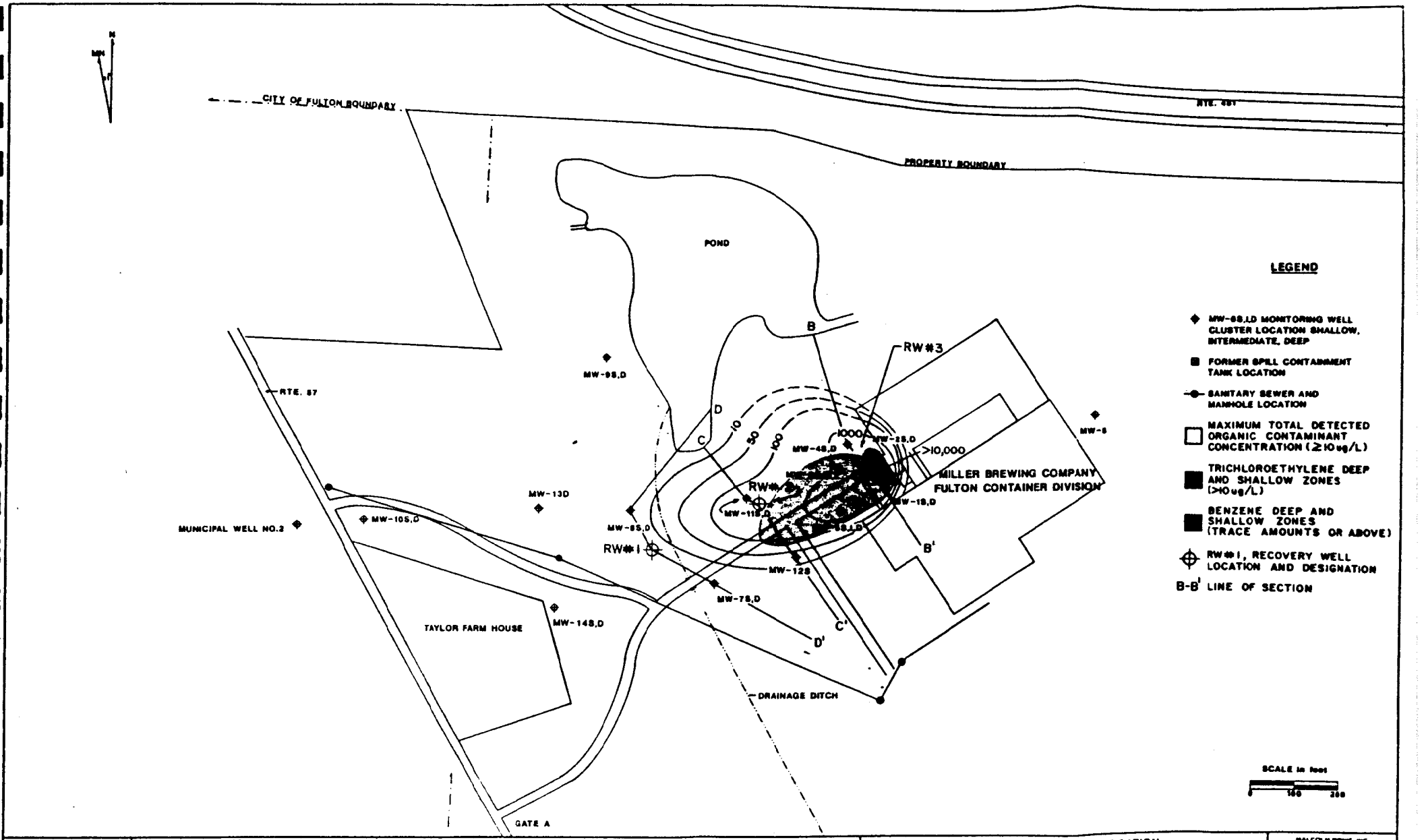
Date: November 16, 1987

STATE OF WISCONSIN)
) ss.:
COUNTY OF MILWAUKEE)

On this 16th day of November, 1987, before me personally came Daniel P. Dockery, to me known, who by me duly sworn, did depose and say: that he resides at Milwaukee, Wisconsin; that he is the Assistant Secretary of the corporation described herein and that he signed this Order on Consent on behalf of said Corporation.

Julie A. Thoms
Notary Public

Exhibit A



MALCOLM PIRNIE

REVISIONS

MILLER BREWING COMPANY
CONTAINER DIVISION
FULTON, NEW YORK

HYDROGEOLOGIC INVESTIGATION
IN THE VICINITY
OF A SPILL CONTAINMENT TANK

EXTENT OF CONTAMINANT PLUMES

MALCOLM PIRNIE, INC.
DATE JANUARY 1987
SHEET OF
FIGURE 2-1

EXHIBIT B

EXHIBIT B

PARAMETER	DAILY MAX.
Methylene Chloride	50 ug/1
1,1,1-trichloroethane	20 ug/1
Trichloroethylene	40 ug/1
Toluene	50 ug/1
1,1-Dichloroethylene	30 ug/1
1,1-Dichloroethane	30 ug/1
Tetrachloroethylene	400 ug/1

EXHIBIT C

EXHIBIT C

WORK PLAN

I. INSTALLATION OF WELLS

1. DRILLING METHOD

The cable-tool percussion method will be utilized to drill the boreholes for installation of the recovery wells. This method carries out the drilling operation by lifting and dropping a heavy string of drilling tools in the borehole. When drilling in unconsolidated sediments, the drill bit loosens the material. The reciprocating action of the tools mixes the loosened sediments with formation water to form a slurry.

The resulting slurry will be removed from the borehole by means of a bailer. The bailer consists of a section of pipe with a check valve at the bottom. As the slurry is removed from the borehole, it will be contained in barrels. The barrels will be emptied into the plastic-lined, bermed soil-retention area located to the east of the container plant.

Six-inch inner diameter (I.D.) steel casing will be driven to prevent caving and keep the borehole open. The usual procedure is to drive the casing several feet, which results in a plug of approximately the same amount of material inside the casing. This material is then mixed with water by the drill bit

to form the slurry. The slurry is then bailed out and the casing driven again. This process is repeated until the casing is sunk to the desired depth, i.e. the top of the glacial lodgement till.

When the casing has reached the desired depth, 5 5/8-inch outer diameter (O.D.) low-carbon, wound-wire screen will be telescoped inside the casing to the total depth of the borehole. The size of the slots in the screen will be determined for each well based on grain-size distribution analysis. The length of the screened section will be dependent on the thickness of the sand and gravel unit which occurs overlying lodgement till. A lead packer is threaded or welded to the top of the well screen. When the well screen is in place, the casing will be pulled back to a depth corresponding to near, but below the top of the well screen. The lead collar will then be expanded by swedging to form a tight seal against the casing.

After the well installations are completed, fine-grained material present in the sand and gravel unit adjacent to the wells will be removed through development, thereby enabling ground water to enter the well more freely. Development water will be contained and later discharged through the treatment system. A figure of a typical recovery well is attached.

2. PUMP TESTS

The existing monitoring wells will be used in conjunction with the pumping wells to determine the shape and extent of the well-field cone of depression. After the Department has

inspected the installation of the recovery system, pump tests will be run on each of the three (3) recovery wells, utilizing temporary pumps. The water generated by the pump tests will be sent through the treatment system prior to discharge into the City of Fulton sanitary system. Notwithstanding any other provision of this Order, the ground water flows generated from the pumping test need not be treated to the levels set forth at Exhibit B to this Order.

3. WELL PUMPS AND ACCESSORIES

Once the pump tests are completed, the three wells will be equipped with submersible pumps capable of pumping the flows of ground water that are required to maintain the drawdown over the required area.

Flow meters and throttling valves will be installed at the discharge of each pump to accommodate the varying head conditions on each well as the drawdown develops, and the requirement to maintain continuous operation of the pumps. As each pump is started, the valve will initially be throttled in a near-closed position to limit the flow. Then, as the water column drops and the intake head on the pump is reduced, the valve would be gradually opened to maintain the desired flow rate at the increasing discharge head values.

The discharge piping from each well will be directed into an underground valve box which will contain the flow measurement and control equipment as well as the sampling taps.

II. START-UP PROCEDURES

The procedure for start-up will be to allow the system to discharge for one (1) hour at which time a sample will be obtained from each of the sampling taps described at paragraph I(c) of the Order. After the samples are obtained, the flow to the treatment system must stop. The samples taken must be analyzed using EPA method 601 and 602. A 24 to 48 hour turn-around time should be requested.

If the treatment system removes or reduces contaminants to the levels listed on Exhibit B to this Order ("approved levels"), the recovery operation may commence. If the recovery system fails to remove the contaminants to the approved levels, additional treatment will be required before commencement of the recovery operation.

A sample must be taken from each of the five (5) sampling taps and analyzed in accordance with the following schedule:

48 hours after start-up, 24 hour turn-around time.
14 days after start-up, 24 hour turn-around time.
1 month after start-up, 1 week turn-around time.
2 months after start-up, I week turn-around time.
3 months after start-up, 1 week turn around time.

The sampling frequency beyond the three month period shall be determined by the Department and the Respondent at a later date.

If the contaminants in the effluent from the recovery system exceed the approved levels at any time during the operation of the system, the Department and the City of Fulton shall

be contacted within two hours after the Respondent receives notice of exceedance. If the contaminants in the effluent from the treatment system exceed the approved levels, the exceedance must be corrected within eight (8) hours or the recovery system must be shut off upon notice from the Department. A sample must be obtained and analyzed within 24 hours after corrective measures are taken to confirm that the approved levels are no longer being exceeded.

An individual at the Respondent's facility must become familiar with both the principles and the mechanics of the recovery system. This person must inspect the recovery system twice a day and record his/her findings. If a problem is detected, action to correct it must be taken immediately and recorded.

The Department shall be advised of the name of the Respondent's representative and how this individual can be contacted at any time. In turn, the Respondent shall be advised by the Department of the name of the Department's representative who is to receive notice of any problems encountered with the recovery system and how that individual can be contacted at any time.

III. MONITORING OF THE EFFECTIVENESS OF THE SYSTEM

The recovery system has been designed to create a cone of depression, which will contain and capture all ground water within the contaminant plume. The contaminant plume is defined as follows:

(a) Areally

- regions where the maximum total detected organic contaminant concentration exceeds 10 ug/l
- areas where the concentration of trichloroethylene exceeds 10 ug/l
- areas which contain detectable concentrations of benzene

(b) Vertically

- the saturated ground water zone between the maximum high water table surface and the top of the glacial till in the areal regions described above.

For the first six months after the commencement of the operation of the recovery system, ground water samples shall be obtained from each of the 26 monitoring wells at the Site on a quarterly basis and analyzed using EPA method 601 and 602. In addition, ground water samples shall be obtained and analyzed for the same EPA scans from the following monitoring wells on a monthly basis: 1S, 1D, 4D, 6S, 6D, 6I, 8D, 10S, 10D, 13D and 14D.

The sampling frequency beyond the six month period shall be determined by the Department and the Respondent at a later date.

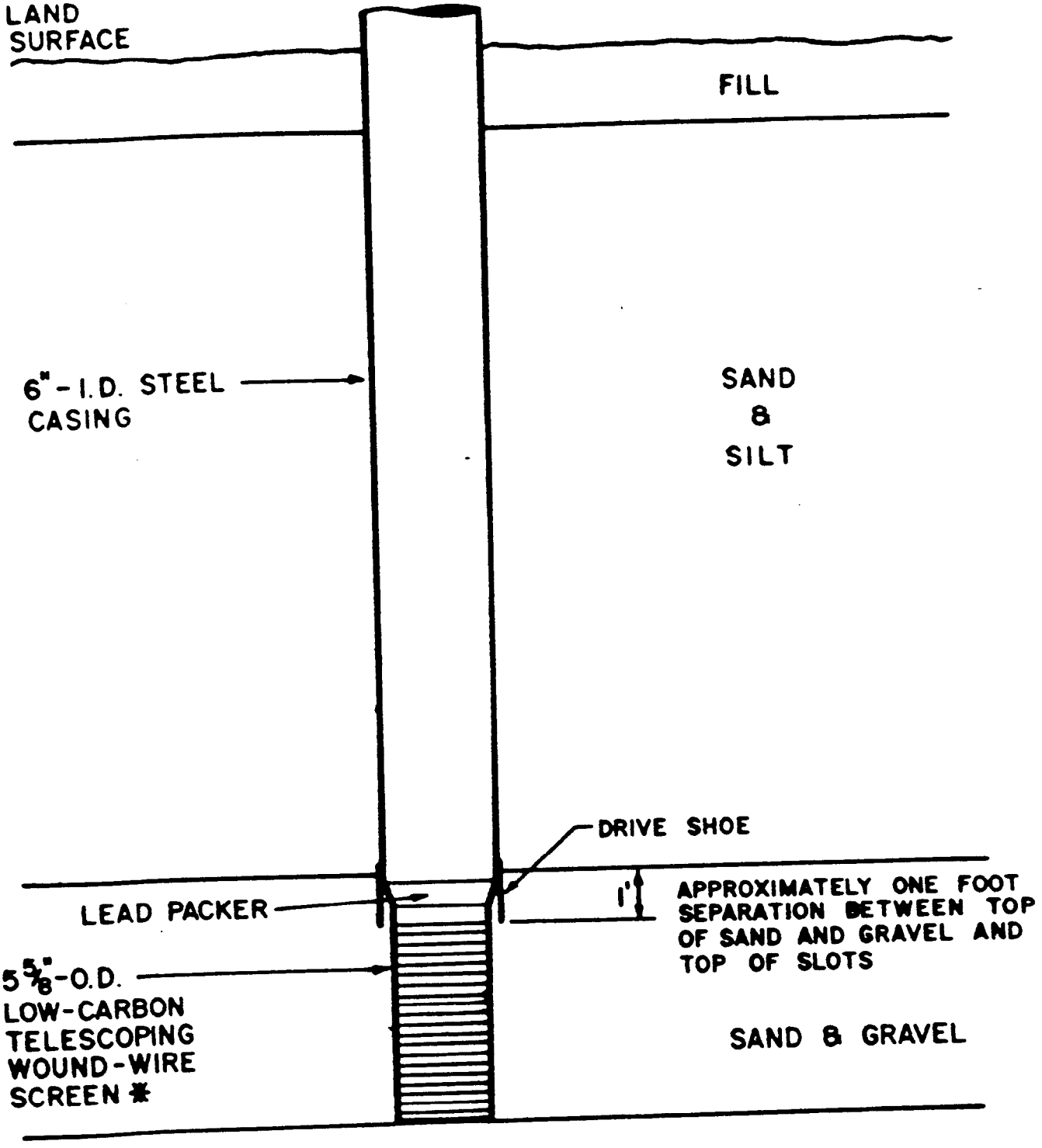
Data from the selected monitoring wells will provide an "early-warning" if the recovery system is not operating properly. In the event the existing system fails to contain the

plume, the Respondent shall consult with the Department and make those necessary modifications to the remedial program to contain the plume.

MALCOLM PIRNIE

ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

SCHEMATIC DIAGRAM
TYPICAL RECOVERY WELL CONSTRUCTION



NOTE: DWG. NOT TO SCALE

* ACTUAL SLOT SIZE TO BE DETERMINED BY GRAIN SIZE DISTRIBUTION ANALYSIS

EXHIBIT D

EXHIBIT D
GROUNDWATER SAMPLING PROTOCOL
MILLER CONTAINER DIVISION

INTRODUCTION

The observance of proper sampling protocol assures that samples collected are representative of their original environment and their integrity is maintained from the time of sampling through the time of analysis. This assurance is gained through the use of: (1) appropriate sampling methods; (2) clean, calibrated equipment; (3) containers, preservatives and holding times conforming to accepted standards; (4) proper work documentation; and (5) statistical precision and accuracy through the use of blank samples, duplicate samples and, in the laboratory, spike samples.

In order to assess the impact of the disposal of waste materials to the land on groundwater quality, the behavior of pollutants in the subsurface and the processes governing this behavior must be evaluated. The fundamental objective of monitoring land disposal or spill sites is to serve as a check on potential groundwater contamination. The subsurface environment, however, is an extremely complex system subject to extensive physical, chemical and biological changes within small vertical and horizontal distances. Samples from a monitoring well represent a small part of an aquifer horizontally and in many cases, vertically. Special precautions must be taken to ensure that the sample taken from a given well is representative of the groundwater at that location and that the sample is neither altered nor contaminated by the sampling and handling procedure.

The following section details the basic procedures followed by Malcolm Pirnie field crews in monitoring groundwater. These procedures are based on United States Environmental Protection Agency and other groundwater monitoring manuals.

(NOTE: The procedure below involves the use of stainless steel bailers for bailing and sampling wells. Miller is currently considering the use of dedicated bailers and/or other equipment for performing those tasks. This procedure would be revised to reflect those changes.)

1. Fill in the preliminary information on the "Monitoring Well Sample Characterization and Chain-of-Custody Sheet" (log sheet).
2. Put on the necessary personal protective equipment and a new pair of disposable gloves.
3. Insure that all sampling and monitoring equipment has been properly decontaminated prior to use, utilizing a tap water rinse, acetone/hexane wipe/rinse, organic free water rinse and a second organic free water rinse.
4. Unlock the well and remove the inner protective cap. Place this in a location that will not contribute contamination to the well when it is replaced.
5. Using the pre-cleaned electric well depth probe, measure the depth to the water surface in the well (to the nearest 0.1 foot) from the top of the internal well casing. Record this information on the log sheet. Decontaminate the well probe.
6. Determine the volume of water in the well using the following formulas, and record it on the log sheet.

   $V = 0.16 \times (D - W)$ (For 2" ID well)

   V = Volume in gallons

   D = Well Depth (feet)

   W = Depth to Water (feet)
7. Attach a new piece of rope to the bailer and lower the pre-cleaned bailer to just fill the bailer. Withdraw the bailer and note the pH and appearance of the water on the log sheet, along with the time.
8. Continue to bail the well until 3 complete well volumes are removed from the well. If the well is bailed to dryness, allow the well to recover prior to sampling. Record the volume bailed on the log sheet.

9. Prepare the sampling bottles, along with associated labels and preservatives. At Miller, only volatile organics are of concern, so 40-ml glass vials with Teflon-lined septum caps are utilized.
10. Remove a complete bailer full of water from the well and fill two vials, being careful to slowly fill the vial to avoid turbulance. Immediately cap the vial and invert to insure that no bubbles are trapped in the vial. If a bubble occurs, discard the vial and repeat this step. Label the sample, note the time of sampling and place the vial in a cooler with ice.
11. From the same or a subsequent bailer, check the water for pH, appearance and temperature. Record this information on the log sheet. Complete the remainder of the chain-of-custody sheet.
12. Decontaminate all sampling and monitoring equipment.
13. Replace the internal well cap and lock the well.
14. Transfer the sample and associated custody sheets to Upstate Laboratories, Inc. (Midler Park Drive). Analysis is for EPA Methods 601 and 602.

NOTE: As a general rule, the sequence of wells should proceed from cleanest to most contaminated. This may be altered slightly to accommodate slowly recovering wells.

EXHIBIT E

SITE SAFETY PLAN

A. HAZARD AND RISK ANALYSIS

1. Hazard Analysis for Each Project Task

The interim remedial program involves treatment of contaminated ground water at the Site. Based on the results of previous site investigations, the following potential hazards have been identified for each task in the work:

1.	Install recovery wells.	Exposure to contaminants; physical hazards.
2.	Install equipment.	Physical hazards.
3.	Conduct start-up & pump tests.	Exposure to contaminants; physical hazards.
4.	Sample recovery wells.	Exposure to contaminants.
5.	Review & interpret results.	None.
6.	Document work.	None.
7.	Perform periodic sampling.	Exposure to contaminants.

2. Potential Exposure To Contaminants

2.1 Contaminants of Concern

Table 1 lists the contaminants found at the Site in the soil and ground water. The concentration level shown represents the maximum value found at any sampling location.

2.2 Contaminant Hazard Review

Table 2 lists toxicity and exposure data for each of the contaminants.

2.3 Contaminant Risk Assessment

The potential for exposure to contaminants at toxic or dangerous levels at the Site is generally low based on the information presented in Tables 1 and 2.

The exposure route of most concern is the inhalation route, since all the contaminants are volatile. However, background levels of organics at the site are in the 0.2 to 0.4 ppm range, as measured with an HNU photoionizer calibrated against benzene. Generally, the contaminants are dissolved in ground water and would not be released to the atmosphere. The only potential inhalation hazard of real concern would occur, if, during drilling or excavation activities, soil areas of relatively high concentrations were encountered.

The dermal and oral hazard ratings for the contaminants at the Site are generally moderate. Since the contaminants are actually "diluted" with soil and/or ground water, the real hazard is more on the level of extremely low.

3. Physical Hazards

Physical hazards at the Site are minimal. Potential safety hazards include injury or hearing loss from the use of heavy machinery (e.g. excavation equipment), shock or electrocution from electrical equipment, and injury from accidents caused by unstable surfaces (e.g. excavation site).

B. PERSONAL PROTECTION EQUIPMENT

Personal protection equipment has been designated for each project task where potential hazards from chemical exposures exist. The designated PPE is listed on Table 3. Protection from site physical hazards is best accomplished by a general attitude of safety-consciousness.

Contractors whose work will be performed on-site, or who otherwise could be exposed to health and safety hazards, will be advised of all such hazards through the distribution of this Site Safety Plan (SSP). All contractors are responsible for: (1) providing their own personal protection equipment; (2) training their employees; (3) providing medical surveillance for their employees; and, (4) insuring their employees are advised of and meet the requirements of this SSP.

C. AIR MONITORING

Air monitoring will be conducted on the site during each of the project tasks listed on Table 3, except periodic sampling of wells. The monitoring will be conducted using an HNU photoionization analyzer. Data will be recorded on the form shown in Appendix A. The HNU will be calibrated according to the manufacturers' instruction manual, prior to going on-site.

If, an any time, the HNU shows a concentration of organics which exceeds 5 ppm (the lowest TWA on Table 2), the Consultant's Project Manager must be immediately notified. If the organic

concentration exceeds 20 ppm (the lowest STEL on Table 2), workers must don their half face air-purifying respirators. If the concentration reaches 1000 ppm (the protection level of 3M respirator 8725), workers must immediately leave the area and notify the Consultant's Project Manager of the hazardous site conditions.

D. SITE CONTROL

The Site will require a minimal amount of site control, due to the low hazard level and general inaccessibility of contaminants at the Site.

Work tasks where contaminants may be encountered include the installation and sampling of wells. The site work zones where these tasks will be performed are shown on Figure 2. These zones consist of 6 circular areas of a 50 foot radius surrounding monitoring wells MW-12, MW-13 and MW-14, and recovery wells RW-1, RW-2 and RW-3. A larger work zone encompasses the former spill containment tank and the concrete dock area where heavy equipment (e.g. drilling rig) will be decontaminated. Contaminated materials or equipment will not be allowed outside the designated work zones.

The buddy system will be used for the work tasks designated in Table 3. For tasks such as drilling, the buddies may be a combination of the Consultant and subcontractor personnel. However, in no case, shall less than two people be on-site during the designated project tasks.

No special communications systems or standard operating procedures will be required for this project. However, the following safe work practices will apply while working in the site work zones shown on Figure 2.

1. Smoking, eating or drinking is forbidden.

2. Ignition of flammable liquids within or through improvised heating devices (e.g. barrels) is forbidden.

3. Contact with samples or excavated materials must be minimized.

4. Use of contact lenses is prohibited.

5. Any injury or unusual health effect must immediately be reported to the Project Manager. The location of medical assistance and other emergency procedures are outlined in Section F of the SSP.

E. DECONTAMINATION PROCEDURES

All decontamination will take place within the Site work zone shown on Figure 2. Decontamination of personnel will consist of rinsing the outer rubber boots with water, and disposing of protective clothing (Tyvek suits and gloves). If personnel do not contact contaminated materials, decontamination will not be required. Sampling equipment (e.g. well bailers) will be decontaminated by rinsing with hexane and acetone and then rinsing twice more with distilled water. Heavy equipment (e.g. the drilling rig) will be decontaminated by steam cleaning in the area shown on Figure 2.

F. EMERGENCY RESPONSE PLAN

The only type of emergency anticipated at the Site would be personal injury due to minor accidents (e.g. slips, falls) or injury from heavy machinery (e.g. drilling rig). Emergency medical treatment can be obtained in the Lee Memorial Hospital in Fulton.

Hospital Phone Number: (315) 592-2224

Directions to Hospital: Exit Miller Container turning right on Route 57. Proceed north towards Fulton. Bear right on Fourth Street. Hospital is approximately 3 blocks down the street on the left side.

G. RECORDS

Personal and Site Safety Logs will be maintained by personnel working on tasks designated on Table 3. These forms are included in Appendix A.

Tables

TABLE 1

MAXIMUM CONTAMINANT LEVELS MEASURED ON-SITE

CONTAMINANT	GROUNDWATER ug/l	SOIL ug/kg
Benzene	4	-
1,1-Dichloroethane	140	-
1,1-Dichloroethylene	2100	-
1,2-Dichloroethylene	6	-
1,3-Dichloropropane	2	-
Ethylbenzene	-	65
Tetrachloroethylene	2400	100
Toluene	15	210
1,1,1-Trichloroethane	8100	59
1,1,2-Trichloroethane	4	-
Trichloroethylene	130	55
Xylenes	2	350

*All these analytical results are on soil removed from a test pit dug in the spill containment tank excavation. They were reported in Malcolm Pirnie's December, 1986 Report entitled "Phase II Hydrogeologic Investigation in the Vicinity of a Spill Containment Tank."

TABLE 2

TOXICITY AND EXPOSURE DATA FOR CONTAMINANTS ON-SITE

	INHALATION HAZARD TWA ppm	STEL ppm	DERMAL HAZARD	ORAL HAZARD LD_{50} RAT mg/kg	LD_{50} gms 155 lb m
Benzene*	10	25	MOD	3,800	266
1,1-Dichloroethane	200	250	MOD	1,120	78
1,1-Dichloroethylene	5	20	na	200	14
1,2-Dichloroethylene	10	-	na	LOW	-
1,3-Dichloropropane	-	-	na	1,900	133
Ethylbenzene	100	125	MOD	3,500	245
Tetrachloroethylene	50	200	MOD	8,850	620
Toluene	100	150	MLD	5,000	350
1,1,1-Trichloroethane	350	450	MOD	10,300	721
1,1,2-Trichloroethane	10	-	MOD	1,140	80
Trichloroethylene	50	200	SEV	4,920	344
Xylenes	100	150	na	5,000	350

* Benzene is also a known carcinogen.

TWA = Time weighted average for a normal 8 hour day and 40 hour week, to which nearly all workers may be exposed day after day, repeatedly, without adverse effect.

STEL = A 15 minute time weighted average exposure which should not be exceeded at any time during a work day, even if the TWA is met.

MLD = Mild irritation effects.

MOD = Moderate irritation effects.

SEV = Severe irritation effects.

Note: Eye irritation may equal or exceed skin irritation.

LD_{50} = Dose of a substance which is expected to be lethal to 50% of an entire defined population.

TABLE 3

PPE FOR EACH PROJECT TASK WITH IDENTIFIED EXPOSURE HAZARDS

PROJECT TASK	PPE LEVEL
Groundwater Remediation	
Install Monitoring Wells	E
Develop & Sample Wells	D
Install Recovery Wells	E
Conduct Start-Up & Pump Tests	D
Sample Recovery Wells	D
Periodic Sampling of Wells	D

PPE *

Level D.

- Half face air-purifying respirator, on hand
- Chemical protective clothing:
  Overalls and long-sleeved jacket; disposable chemical resistant coveralls; coveralls; one or two piece chemical splash suit
- Gloves, inner (surgical type)
- Gloves, outer, chemical protective
- Boots, chemical protective
- Safety glasses, splash goggles or face shield.

Level E.

- Coveralls
- Boots/shoes, safety
- Safety glasses
- Hard hat
- Half face air-purifying respirator, on hand.

* PPE is slightly modified from standards in the Malcolm Pirnie HSP.

Figures

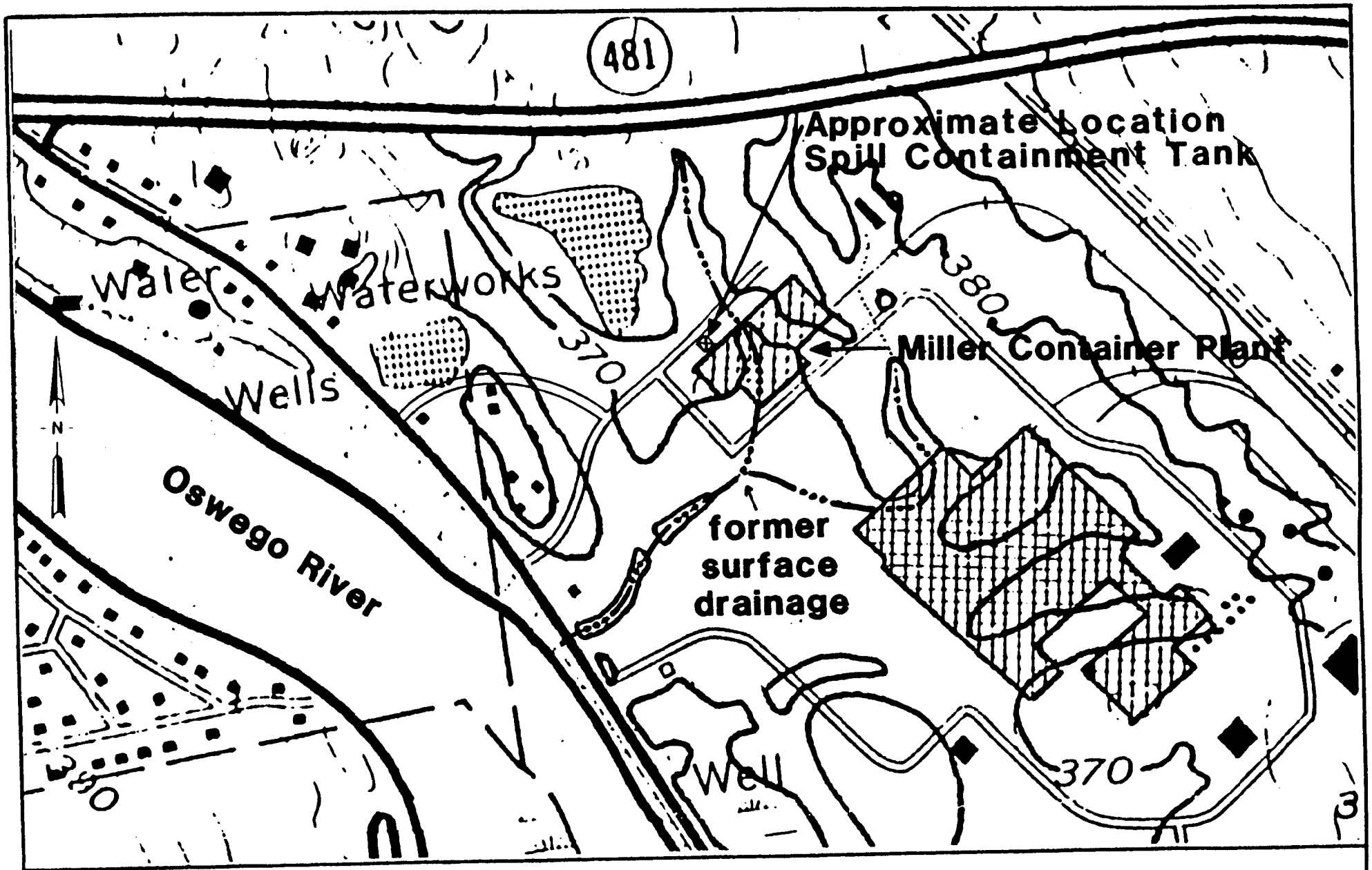
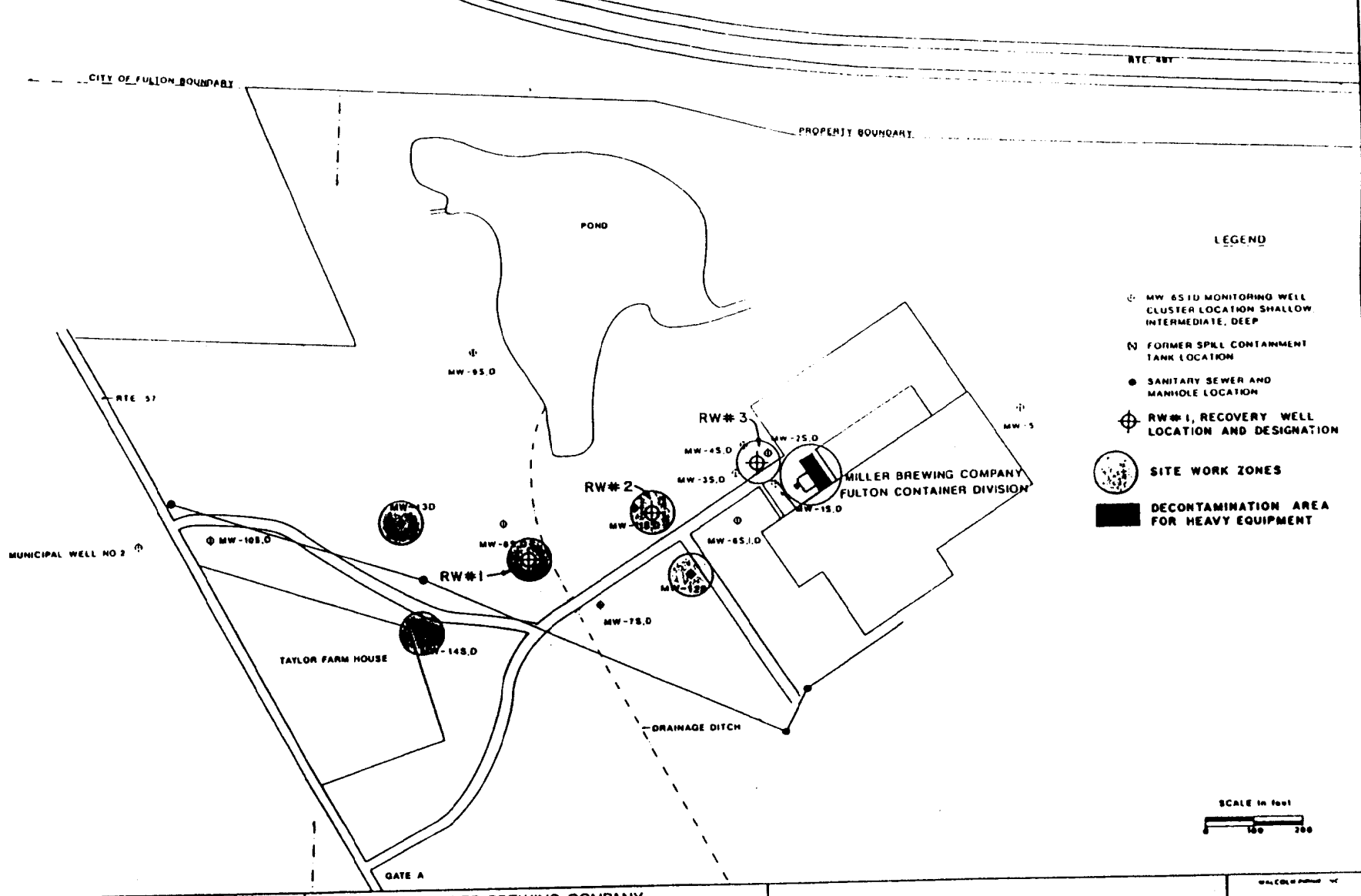


FIGURE 1 LOCATION OF MILLER BREWING COMPANY, FULTON CONTAINER PLANT



MALCOLM PIRNIE

REVISIONS

MILLER BREWING COMPANY
CONTAINER DIVISION
FULTON, NEW YORK

SITE SAFETY PLAN

SITE CONTROL MAP

DATE FEBRUARY 1987

FIGURE 2

Appendix

MALCOLM PIRNIE

HNU Air Monitoring Data

Site Sketch

Site Name _____

Client Name _____

Project No. _____

Sampler's Name _____

Weather & Notes _____

Date	Time	Wind Direction	Wind Speed	Location	Span Setting	Concen – tration

MALCOLM PIRNIE

PERSONAL SAFETY LOG

Employee Name: _____ Site Name: _____

Client Name: _____ Project Number: _____

Work Performed: _____

Date							
Work Area							
Hours on Site							
Coveralls							
Tyvek							
Gloves, Inner							
Gloves, Outer							
Boots							
Hard Hat							
Face Shield							
Resp., Dust							
Resp., Half							
Resp., Full							
SCBA							
Resp., ESC							
Dosimeter							
Air Monitor							
Others							
Decontamination							
Complete							
Incomplete							

Comments: _____

MALCOLM PIRNIE

SITE SAFETY LOG

Site Name:_____ Date:_____

Client Name:_____ Project No.:_____

Employees on Site:_____

Others on Site:_____

Work Area:_____

Weather Conditions:_____

Summary of Site Conditions (include air monitoring data):_____

_____

_____

_____

_____

_____

_____

_____

State Any First Aid Administered:_____

_____

_____

_____

_____

_____

_____

_____

Filled Out By:_____

MALCOLM PIRNIE

PERSONAL HAZARDOUS WASTE EXPOSURE RECORD

Name: _____ Date: _____

Site Location: _____

Operation being Performed at Time of Exposure: _____

_____

Hazardous Materials Present: _____

_____

Type of Exposure: _____

_____

Decontamination Measures Taken: _____

_____

_____

Observed Reactions or Health Effects: _____

_____

_____

Comments: _____

_____

_____

Employee's Signature: _____