Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision
Macbeth Kollmorgen Site
T/ New Windsor, Orange County
Site Number 3-36-037

March 1997

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* JOHN P. CAHILL, *Acting Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Macbeth Kollmorgen Inactive Hazardous Waste Site
Town of New Windsor, Orange County, New York
Site No. 336037

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for the Macbeth Kollmorgen inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law (ECL). The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Macbeth Kollmorgen Inactive Hazardous Waste Site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix A of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential threat to public health and the environment.

Description of Selected Remedy

Based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Macbeth Kollmorgen site and the criteria identified for evaluation of alternatives, the NYSDEC has selected a no further remedial action with continuation of the granular activated carbon filtration units on the affected residents and a groundwater monitoring program. The components of the remedy are as follows:

- Macbeth Kollmorgen will continue to operate the GAC units at two residential wells until the pretreatment contaminant levels are below the NYSDOH public drinking water standards for five consecutive quarters. At that time, Macbeth Kollmorgen may petition the NYSDOH and NYSDEC for the removal of the units.
- Macbeth Kollmorgen will monitor two private wells at least annually for a minimum of two years.
- Monitoring of the quality of the groundwater in on-site monitoring wells and nearby residential wells quarterly for the first year and semiannually for the second year.

- NYSDEC and NYSDOH will evaluate the analytical data over the first two years and determine whether or not additional monitoring is necessary.
- NYSDEC will also reclassify the site from a Class 2 to a Class 4, following the issuance of this ROD.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

3/31/97
Date

Michael J. O'Toole, Jr., Director
Division of Environmental Remediation

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SECTION 1: SITE LOCATION AND DESCRIPTION

Since the mid 1950's, the Macbeth Kollmorgen facility has been located at 405- 415 Little Britain Road (New York State Route 207) in New Windsor, Orange County, See Figure 1, Site Location. The site encompasses about 25 acres and lies approximately 2.5 miles west of the Hudson River and within 0.5 miles east of Lake Washington Reservoir and Lockwood Basin (a stilling basin or pool used to protect against scouring below dams) of the City of Newburgh water supply. The partially wooded property is located in a rural area surrounded by private residences and light industries. See Figure 2, Area Map. The site is occupied by two buildings surrounded by paved parking areas and driveways. The main building is approximately 62,500 square feet. Building 2 was built in the 70's and is approximately 14,000 square feet. Please refer to Figure 3, Site Plan.

SECTION 2: SITE HISTORY

2.1: Operational/Disposal History

Macbeth Kollmorgen has operated at the facility since the 1950's. The main building consists of office space and light manufacturing areas, used for the manufacture of software and instrumentation related to the control and evaluation of color systems. The other building is currently unoccupied.

During the mid 1970's wastes, off-spec paint and chlorinated solvents were believed to be disposed of out the side door of the main building. Interviews with former employees led the investigation to an area referred to as the "old burning pit" identified as "Area of Former Waste Disposal" in Figure 3.

2.2: Previous Investigations

Macbeth Kollmorgen initiated a site investigation at the facility in 1986. The purpose of the study was to determine the impact of past waste disposal practices at the facility. A Phase I investigation work plan which included the installation of six monitoring wells was prepared in 1986. In 1987, the results of the Phase I were transmitted to the NYSDEC. In 1988, NYSDEC requested Macbeth Kollmorgen to perform additional activities including; additional monitoring wells, sampling of the groundwater for volatile organics, storm water catch basin sampling, and a soil gas survey at the site. The investigation revealed a small disposal area containing paint and paint thinner wastes located in the woods near the rear of the main building. Groundwater contamination was detected in MW-3 where the total volatile organics exceeded 1500 parts per billion (ppb.) Refer to Figure 3, Site Plan.

In the Fall of 1990 NYSDOH sampled private well serving homes near the Macbeth Kollmorgen facility. VOCs were detected in several of the private wells located to the North and West of the site. The highest concentrations were found to the north of the site at 400 Little Britain Road, where total volatile organic compounds were found in total concentrations exceeding 19,000 ppb.

2.3: Remedial History

Based upon the 1986 & 1987 data, Macbeth Kollmorgen voluntarily excavated the small disposal area located in the woods near the rear of building one. Approximately forty-six drums of waste residual were excavated and incinerated at a licensed facility. An additional fifty cubic yards of soil were excavated and properly disposed of at an approved treatment facility. IRM

Macbeth Kollmorgen connected homes with contaminated wells north of the site to public water, and installed GAC filtration systems on contaminated wells located west of the site. Homes with private drinking water wells where VOC contamination was below NYSDOH public drinking water standards have been supplied with bottled water. Refer to Figure 4, Water Service Map.

In March 1991, based on the disposal area and residential well sampling results, NYSDEC placed Macbeth Kollmorgen on the New York State Registry of Inactive Hazardous Waste Disposal Sites as a class 2.

SECTION 3: CURRENT STATUS

In February 1994 Kollmorgen Instruments Corporation entered into an RI/FS consent order with NYSDEC for the Macbeth Kollmorgen site. In response to a determination that the presence of hazardous waste at the Site presents a significant threat to human health and the environment, Macbeth Kollmorgen has recently completed a Remedial Investigation/Feasibility Study (RI/FS).

3.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site.

The RI was conducted between March 1994 and May 1995. A report entitled Remedial Investigation Report, Macbeth Division of Kollmorgen Instruments, December 1995 has been prepared describing the field activities and findings of the RI in detail.

The RI included the following activities:

- *A soil gas survey to determine whether or not additional sources of chlorinated solvents were present at the facility.*
- *Installation of soil borings for analysis of soils at locations of elevated soil gas survey results.*
- *Installation of monitoring wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions.*
- *Excavation of test pits in areas of concerns.*
- *An Interim Remedial Measure to address conditions discovered at the site during the performance of the RI*

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the RI analytical data was compared to environmental Standards, Criteria, and Guidance (SCGs). Groundwater, drinking water and surface water SCGs identified for the Macbeth Kollmorgen site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. NYSDEC TAGM 4046 soil cleanup guidelines for the protection of groundwater, background conditions, and risk-based remediation criteria were used as SCGs for soil. The Division of Fish and Wildlife Technical Guidance for Screening Contaminated Sediments was used for surface water sediments.

Based upon the results of the remedial investigation in comparison to the SCGs and potential public health and environmental exposure routes, certain areas and media of the site require remediation. These are summarized below. More complete information can be found in the RI Report.

3.1.1 Nature of Contamination:

As described in the RI Report, many soil and groundwater samples were collected at the Site to characterize the nature and extent of contamination.

3.1.2 Extent of Contamination

Table 1 summarizes the extent of contamination for the contaminants of concern in the soil and groundwater and compares the data with the proposed remedial action levels (SCGs) for the Site. The following are the media which were investigated and a summary of the findings of the investigation.

Chemical concentrations are reported in parts per billion (ppb), or parts per million (ppm). For comparison purposes, SCGs are given for each medium.

Soil

A soil gas survey was performed to determine whether or not any additional potential sources were located on the site. Refer to Figure 5, Soil Gas Survey Network. Soil borings were installed at locations of elevated results from the soil gas survey to determine if a source existed. A total of eleven soil borings were installed at the site. See Figure 6, Soil Boring Locations. The soils were field screened with a photoionization detector to measure total organic vapors. A sample from the interval that exhibited the highest reading from each boring was submitted for analysis. All samples were analyzed for volatile organic compounds in accordance with NYSDEC CLP methods. SB-1, SB-2, SB-6, and SB-11 contained estimated concentrations below practical quantitation limits. The compounds included tetrachlorotethene, 1,2-dichloroethane, trichloroethane, benzene, ethylbenzene, and toluene. All concentrations of volatile organic compounds were below NYSDEC recommended cleanup objectives as stated in NYSDEC DHWR TAGM 94-4046. The presence of low level petroleum related products detected in some borings are attributed to the asphalt and sub-base of the paved driveway located above the sample. At SB-11, the location with the highest soil gas reading, the samples were run for Target Analyte List (TAL) metals, Target Compound List (TCL) semi-volatiles organics, pesticides, and PCBs. Pesticides and PCBs were not detected. A number of TAL metals were quantified in the sample.

Various areas of concern, including low-lying and mounded areas, were identified during a site wide survey. Even though the soil gas survey did not indicate elevated levels of volatile organic compounds, a test pit investigation was performed. Eight test pits were investigated, see Figure 7, Test Pit Locations. Most of the test pits appeared to be brush pits or soil 'borrow' areas. Two of the eight test pits required additional investigation. See Section 4.2.

Groundwater

As part of the Remedial Investigation, an additional five monitoring wells were installed at the Macbeth Kollmorgen site. The five wells were installed to better define the groundwater flow and quality in the deeper bedrock zones not monitored by the previous well network and at depths from which certain homeowners are withdrawing water. The monitoring wells were installed to act as couplets to the existing wells. The locations of the wells are indicated on Figure 8, Monitoring Well Location Map. Two rounds of sampling were conducted at all of the monitoring wells for the RI, one in January 1995 and the second in April 1995. The samples were analyzed for volatile organic compounds (VOCs).

Sixteen wells were sampled during the first round. Seven of the wells contained VOCs at levels above the NYSDOH drinking water standard. The results of the first round of sampling are summarized in Table 2. MW-1 contained 18 ppb of toluene and 13 ppb of xylene. The drinking water standard for all of the constituents mentioned here is 5 ppb. Toluene was also detected in MW-8 and MW-13 at 11 ppb and 35 ppb, respectively. 1,1-Dichloroethane was detected in MW-3, MW-13, and MW-16 at 14 ppb, 15 ppb, and 61 ppb respectively. MW-13 also contained 14 ppb of 1,1,1-trichloroethane. MW-16 contained 150 ppb of chloroethane. Trichloroethene was detected two wells, MW-11 at 14 ppb and MW-12 at 72 ppb. MW-12 also contained 84 ppb of 1,2-dichloroethene.

During round two, of the sixteen wells sampled five contained VOCs above the NYSDOH drinking water standard. Refer to Table 3, for a summary of results from round two. 1,1-Dichloroethene was detected in four wells, MW-3 at 65 ppb, MW-10 at 25 ppb, MW-13 at 22 ppb, and MW-16 at 67 ppb. Chloroethane was detected in MW-10 at 12 ppb, in MW-13 at 24 ppb and in MW-16 at 130 ppb. MW-12 and MW-13 contained trichloroethene at 80 ppb and 15 ppb, respectively. 1,2-Dichloroethene was detected in MW-12 at 170 ppb and in MW-13 at 11 ppb. MW-13 also contained 66 ppb of 1,1,1-trichloroethane.

3.2 Interim Remedial Measures:

Interim Remedial Measures (IRMs) are conducted at sites when a source of contamination or exposure pathways can be effectively addressed prior to completion of the RI/FS.

Based on the test pit investigation conducted at the site in November 1994, two areas of concern were identified as requiring additional work. See Figure 9, IRM Areas. One area of concern was a circular depression southwest of building 1 that contained several five to ten gallon metal and glass containers, some with residual paint materials. Paint solids were found in a second area measuring approximately twenty -five feet long by thirteen feet wide, to the southeast of Building one. At some locations within this area the paint was a few inches thick. A sample of the paint was obtained and analyzed for TAL metals and volatile organic compounds. Results indicated that volatile organic compounds were not present at concentrations above the NYSDEC DHWR TAGM 4046. The paint solids contained some metals and

IRM

elevated levels of primarily non-halogenated volatile organic compounds above the NYSDEC DHWR TAGM 4046. Approximately 45 cubic yards of materials from the two areas of concern were excavated and stockpiled onsite during December 1994. Post excavation confirmatory sampling was conducted at the former container area. Samples were analyzed for TAL metals and volatile organic compounds in accordance with NYSDEC CLP methods. Three VOCs were detected at concentrations below the instrument detection limits and below NYSDEC recommended clean up objectives. Some metals were detected above NYSDEC recommended cleanup goals but within the range of background for Eastern USA. In February 1995, the stockpiled material was manifested as hazardous waste and properly disposed of at a facility in Michigan.

3.3 Summary of Human Exposure Pathways:

This section discusses the potential pathways of human exposure related to this site.

An exposure pathway is how an individual may come into contact with a contaminant. The five elements of an exposure pathway are (1) the source of contamination; (2) the environmental media and transport mechanisms (water, air, soil); (3) the point of exposure (home, workplace); (4) the route of exposure (ingestion, inhalation, absorption through the skin); and (5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events.

Ingestion of the contaminated groundwater and dermal contact with sub-surface soil are the potential exposure pathways of concern at this site.

I,D Local Residents

Groundwater

In the Fall of 1990, the NYSDOH sampled private wells serving homes near the Macbeth Kollmorgen facility. VOCs were detected in several of the private wells located to the North and West of the site. To eliminate exposure to VOCs in drinking water at levels exceeding NYSDOH public drinking water standards, Macbeth Kollmorgen connected homes with contaminated wells north of the site to public water, and installed GAC filtration systems on contaminated wells located west of the site. Homes with private drinking water wells where VOC contamination was below NYSDOH public drinking water standards have been supplied with bottled water. Private wells near the site will be monitored by Macbeth Kollmorgen on a quarterly basis to ensure that exposure to VOCs at levels exceeding NYSDOH public drinking water standards does not occur. The concentration of contaminants in the residential wells have been decreasing since the monitoring began in 1991. Tables 4 & 5 document the decreasing trends of Volatile Organics Compounds in the two homeowners' wells.

Soil

Contact with contaminated subsurface soil may have been a concern for construction or utility workers. However, all contaminated soil was removed during the IRM.

3.4 Summary of Environmental Exposure Pathways:

This section summarizes the types of environmental exposures which may be presented by the site. The Fish and Wildlife Impact Assessment included in the RI presents a more detailed discussion of the potential impacts from the site to fish and wildlife resources. The following pathways for environmental exposure have been identified: soil and groundwater

The primary contaminants associated with Macbeth Kollmorgen are chlorinated volatile organic compounds, specifically 1,1,1-trichloroethane and its break down products. The presence of these compounds above NYSDEC action levels or NYSDOH standards is limited to groundwater. The ultimate fate of these contaminants in the groundwater may include sorption, hydrolysis, biodegradation, oxidation/reduction, photolysis and/ or volatilization. Groundwater is the key transport medium of these contaminants, via movement of the groundwater through the rock fractures present within the dolomite bedrock underlying the site.

Although several compounds were detected in surface soils at the site, these compounds were found at concentrations well below available toxicity data. Therefore, it is unlikely that surface soils present a risk to wildlife inhabiting the site or the site vicinity.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The NYSDEC and Kollmorgen Instruments Corporation entered into a Consent Order on February 14, 1994. The Order obligates the responsible parties to implement an RI/FS. Upon issuance of the Record of Decision the NYSDEC will approach the PRPs to implement the selected remedy under an Order on Consent.

The following is the chronological enforcement history of this site.

Date	Index No.	Subject of Order
2-94	W3-0541-91-01	RI/FS

SECTION 5: SUMMARY OF THE SELECTED REMEDY

Based upon the results of the RI, previous investigations and the IRM that have been performed at the site, the NYSDEC has selected no further remedial action with continued groundwater monitoring and proper operation and maintenance of the GAC filtration units as the preferred remedial alternative for the site. The concentration level for the contaminants of concern in the onsite wells has been decreasing for several years.

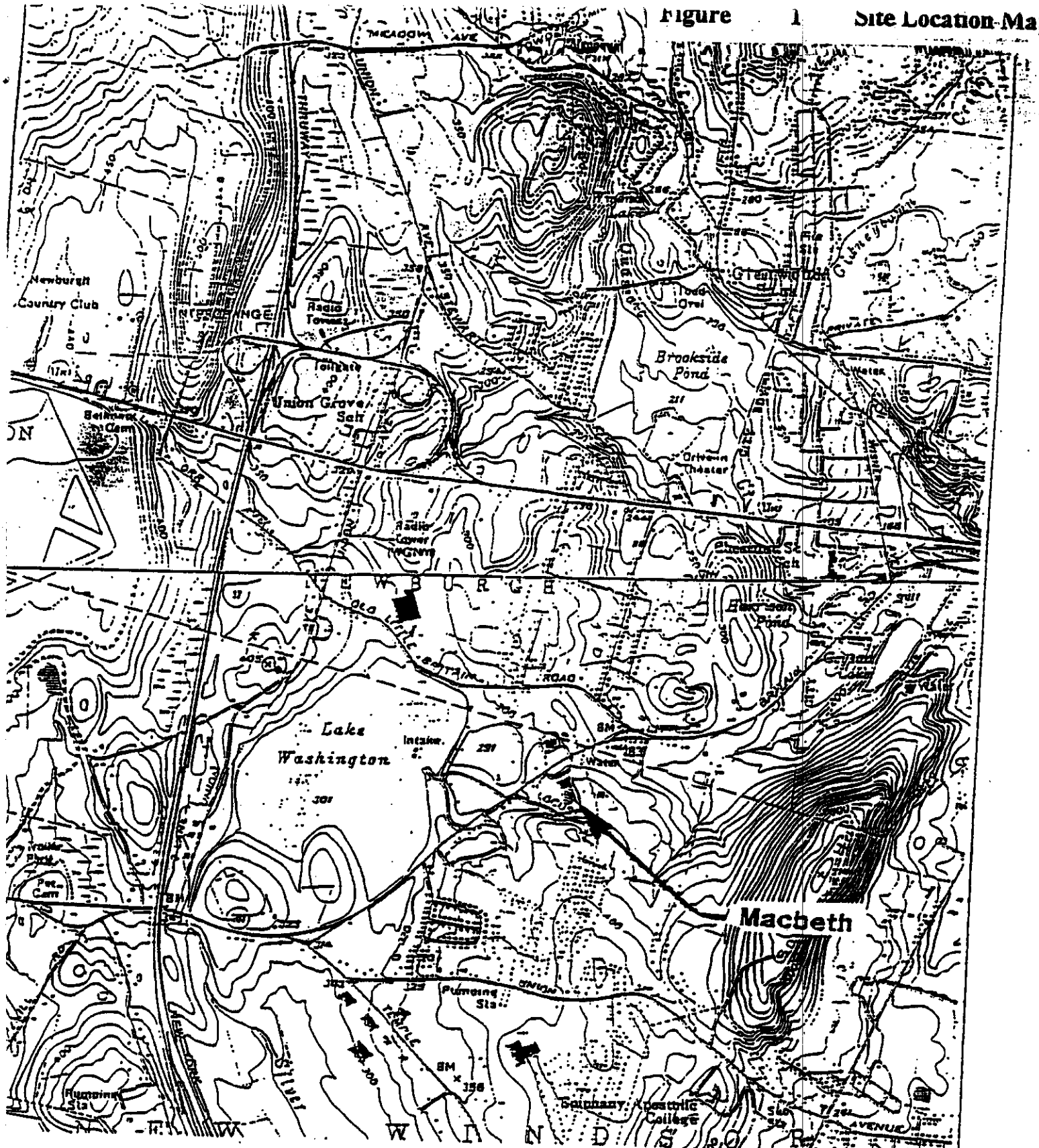
The concentration of contaminants in the residential wells to the West are also decreasing, while the residents to the North have been connected to public water. In consideration of the existing private well monitoring data, Macbeth Kollmorgen will monitor two private wells at 416/634 Little Britain Road and 27 Steele Road at least annually for a minimum of two years, and maintain GAC filtration units at 419/637 Little Britain Road and 7 Steele Road until the pre-treatment contaminant levels are below the NYSDOH public drinking water standard for five consecutive quarters. Once these conditions are met, Macbeth Kollmorgen may petition the NYSDOH and the DEC to discontinue monitoring the private wells, and to remove the GAC filtration units. In addition, Macbeth Kollmorgen will continue to monitor four onsite wells, MW-3, MW-10, MW-12, and MW-16 on a quarterly basis for the first year and semiannually the second year to insure a downward trend of the concentrations, after which DEC will reevaluate and determine whether Macbeth Kollmorgen should continue to monitor. Upon issuance of this ROD, the Department will reclassify the site from a Class 2 to a Class 4 on the New York State Registry of Inactive Hazardous Waste Disposal Sites which means the site is properly remediated and requires continued monitoring and maintenance of the residential water treatment systems.

SECTION 6: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation (CP) activities were undertaken in an effort to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- A Citizen Participation Plan was developed for the site.
- A repository for documents pertaining to the site was established.
- A site mailing list was established which included nearby property owners, local political officials local media and other interested parties.
- A Factsheet detailing the RI/FS work plan was mailed out in August 1994.
- A Factsheet announcing the PRAP and a public meeting notice was sent out in July 1996.
- A public meeting was held on August 7, 1996 at the New Windsor Town Hall
- In September 1996, a Responsiveness Summary, Appendix B was prepared and made available to the public, to address the comments received during the public comment period for the PRAP.

Figure 1 Site Location Map



LOCATION MAP

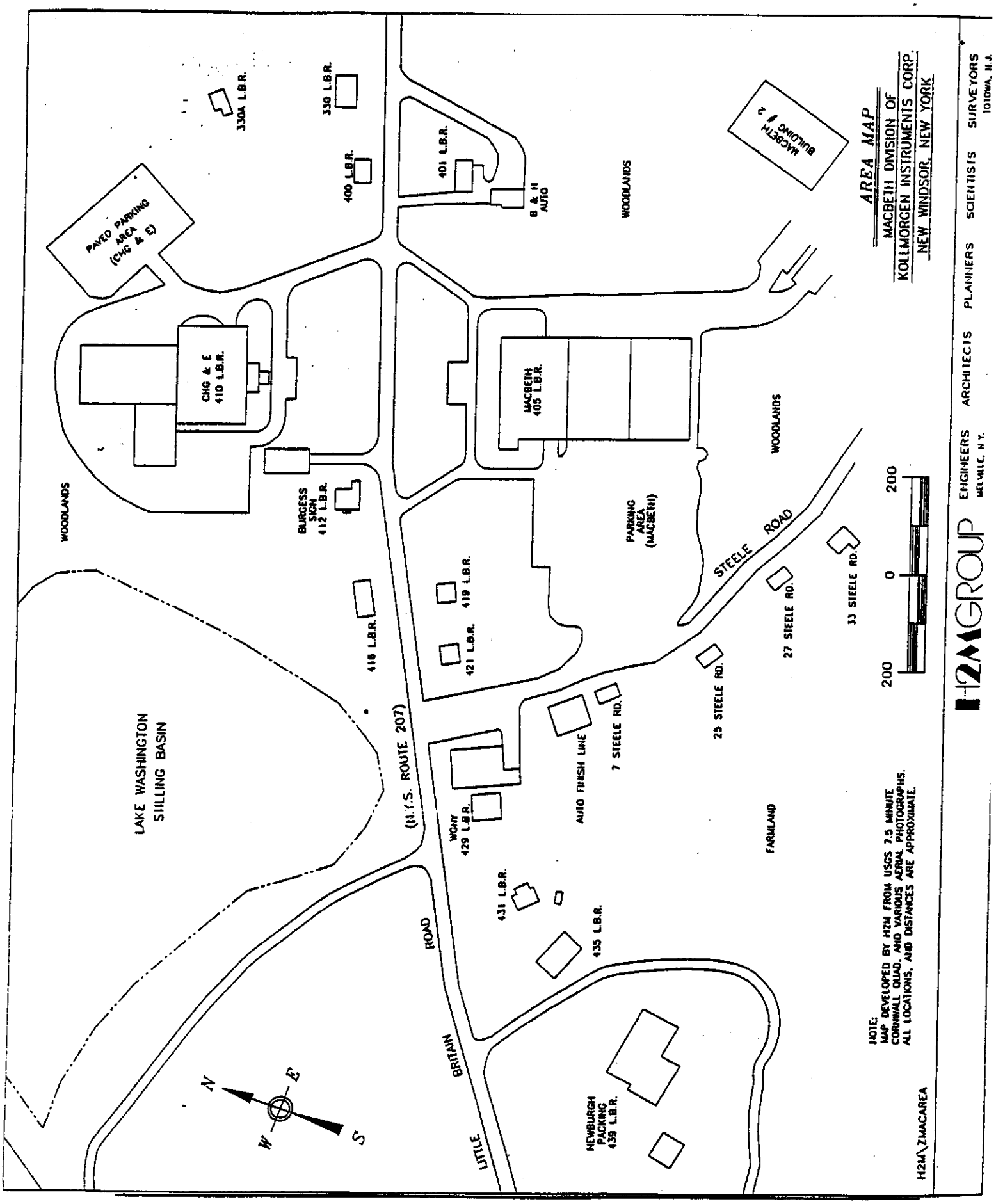
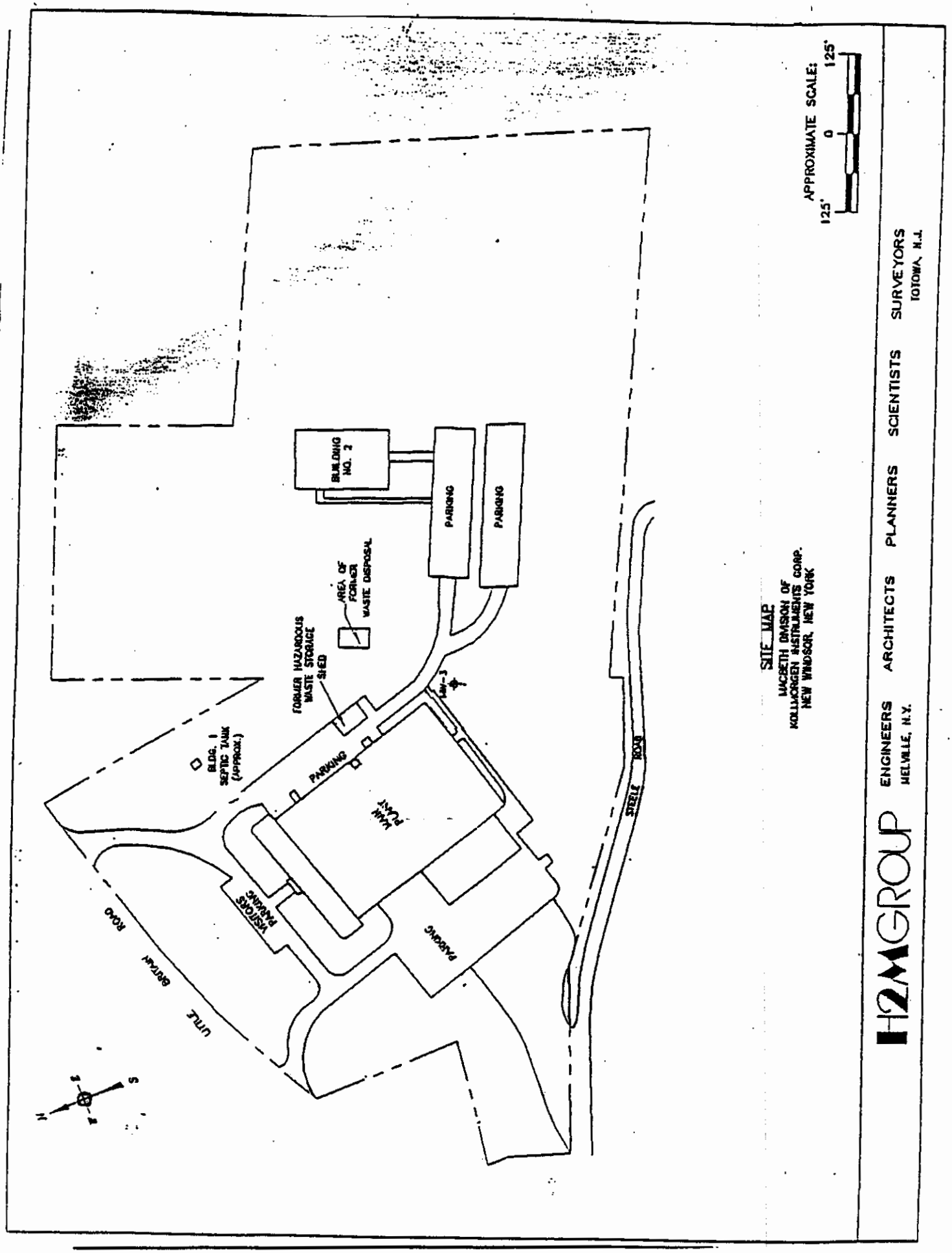
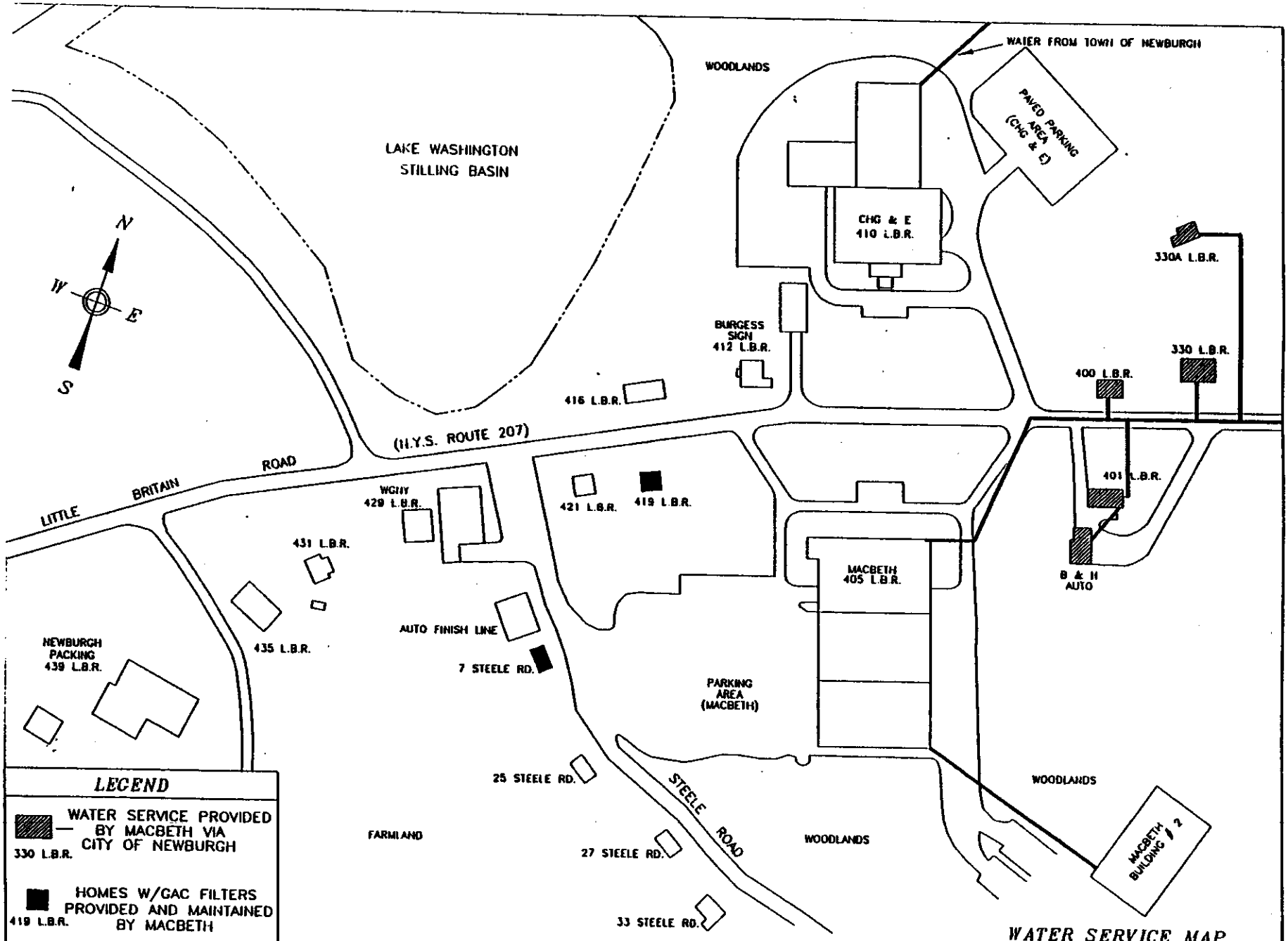
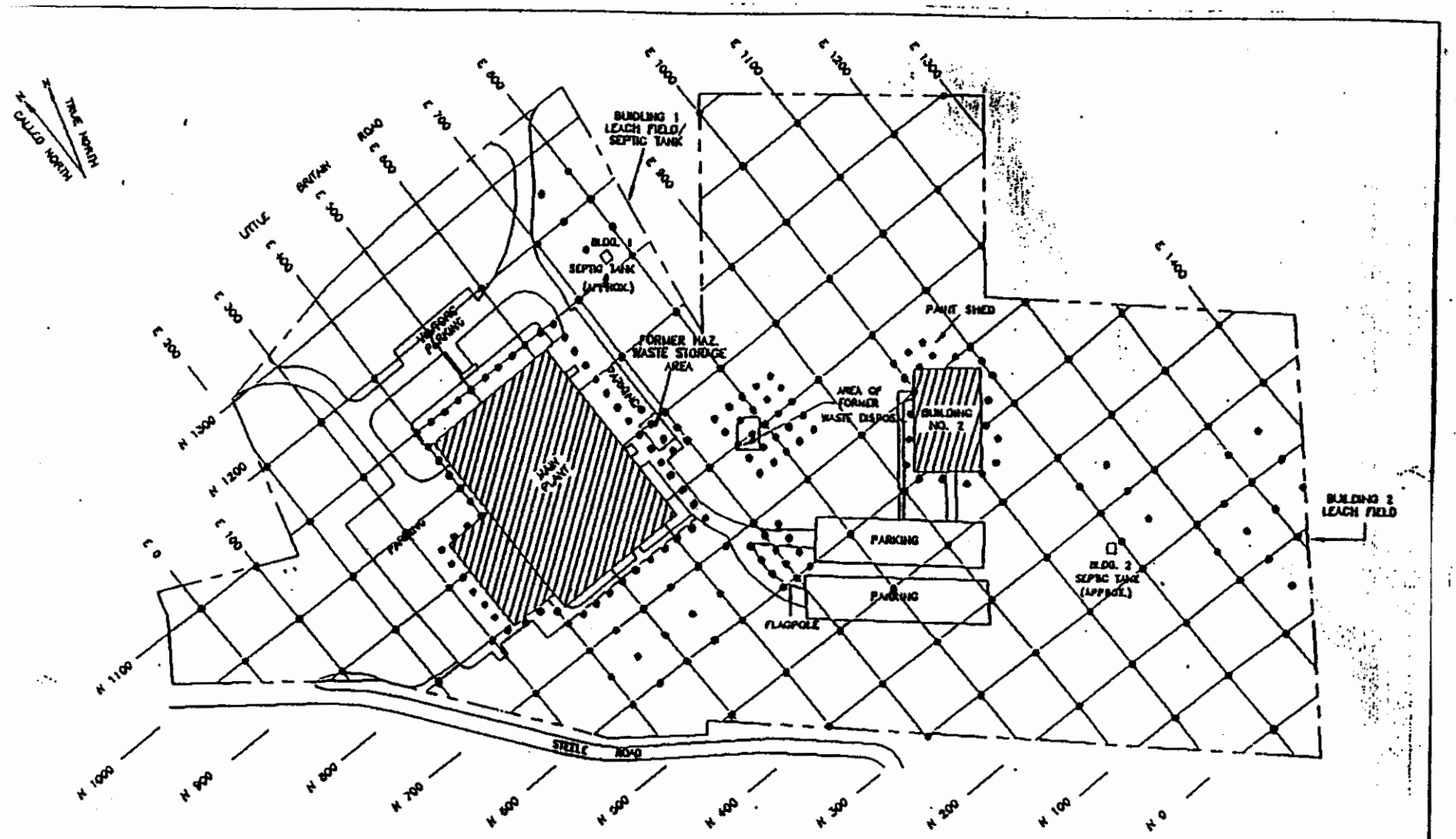

AREA MAP
MACBETH DIVISION OF
KOLLMORGEN INSTRUMENTS CORP.
NEW WINDSOR, NEW YORK
H2M GROUP ENGINEERS ARCHITECTS PLANNERS SCIENTISTS SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.
LAKE WASHINGTON
SILLING BASIN
(U.S. ROUTE 207)
LITTLE BRITAIN ROAD
STEELE ROAD
WOODLANDS
PAVED PARKING AREA (CHG & E)
330A L.B.R.
330 L.B.R.
400 L.B.R.
401 L.B.R.
B & H AUTO
MACBETH BUILDING # 2
CHG & E 410 L.B.R.
MACBETH 405 L.B.R.
BURGESS SIGN 412 L.B.R.
PARKING AREA (MACBETH)
416 L.B.R.
419 L.B.R.
421 L.B.R.
WCNY 429 L.B.R.
AUTO FINISH LINE
7 STEELE RD.
25 STEELE RD.
27 STEELE RD.
33 STEELE RD.
FARMLAND
431 L.B.R.
435 L.B.R.
NEWBURGH PACKING 439 L.B.R.
200 0 200
N E S W
NOTE:
MAP DEVELOPED BY H2M FROM USGS 7.5 MINUTE
CORNWALL QUAD, AND VARIOUS AERIAL PHOTOGRAPHS.
ALL LOCATIONS, AND DISTANCES ARE APPROXIMATE.
H2M\ZMACAREA

Figure 3 Site Plan




WATER FROM TOWN OF NEWBURGH
WOODLANDS
PAVED PARKING AREA (CHG & E)
LAKE WASHINGTON
STILLING BASIN
CHG & E
410 L.B.R.
330A L.B.R.
BURGESS SIGN
412 L.B.R.
330 L.B.R.
400 L.B.R.
416 L.B.R.
(N.Y.S. ROUTE 207)
LITTLE BRITAIN ROAD
401 L.B.R.
WGHY
429 L.B.R.
421 L.B.R.
419 L.B.R.
431 L.B.R.
MACBETH
405 L.B.R.
B & H AUTO
AUTO FINISH LINE
NEWBURGH PACKING
439 L.B.R.
435 L.B.R.
7 STEELE RD.
PARKING AREA (MACBETH)
25 STEELE RD.
STEELE ROAD
WOODLANDS
FARMLAND
27 STEELE RD.
WOODLANDS
MACBETH BUILDING # 2
33 STEELE RD.
N
W
E
S
LEGEND
WATER SERVICE PROVIDED BY MACBETH VIA CITY OF NEWBURGH
330 L.B.R.
HOMES W/GAC FILTERS PROVIDED AND MAINTAINED BY MACBETH
419 L.B.R.
WATER SERVICE
NOTE:
MAP DEVELOPED BY H2M FROM USGS 7.5 MINUTE CORNWALL QUAD. AND VARIOUS AERIAL PHOTOGRAPHS. ALL LOCATIONS, AND DISTANCES ARE APPROXIMATE.
200
0
200
WATER SERVICE MAP
MACBETH DIVISION OF
KOLLMORGEN INSTRUMENTS CORP.
NEW WINDSOR, NEW YORK
H:MAC\WATERSEV
H2M GROUP
ENGINEERS
MELVILLE, N.Y.
ARCHITECTS
PLANNERS
SCIENTISTS
SURVEYORS
TOTOWA, N.J.



SOIL GAS SURVEY SITE
MONITORING NETWORK
MACBETH DIVISION OF
KOLLMORGEN INSTRUMENTS CORP.
NEW WINDSOR, NEW YORK

LEGEND

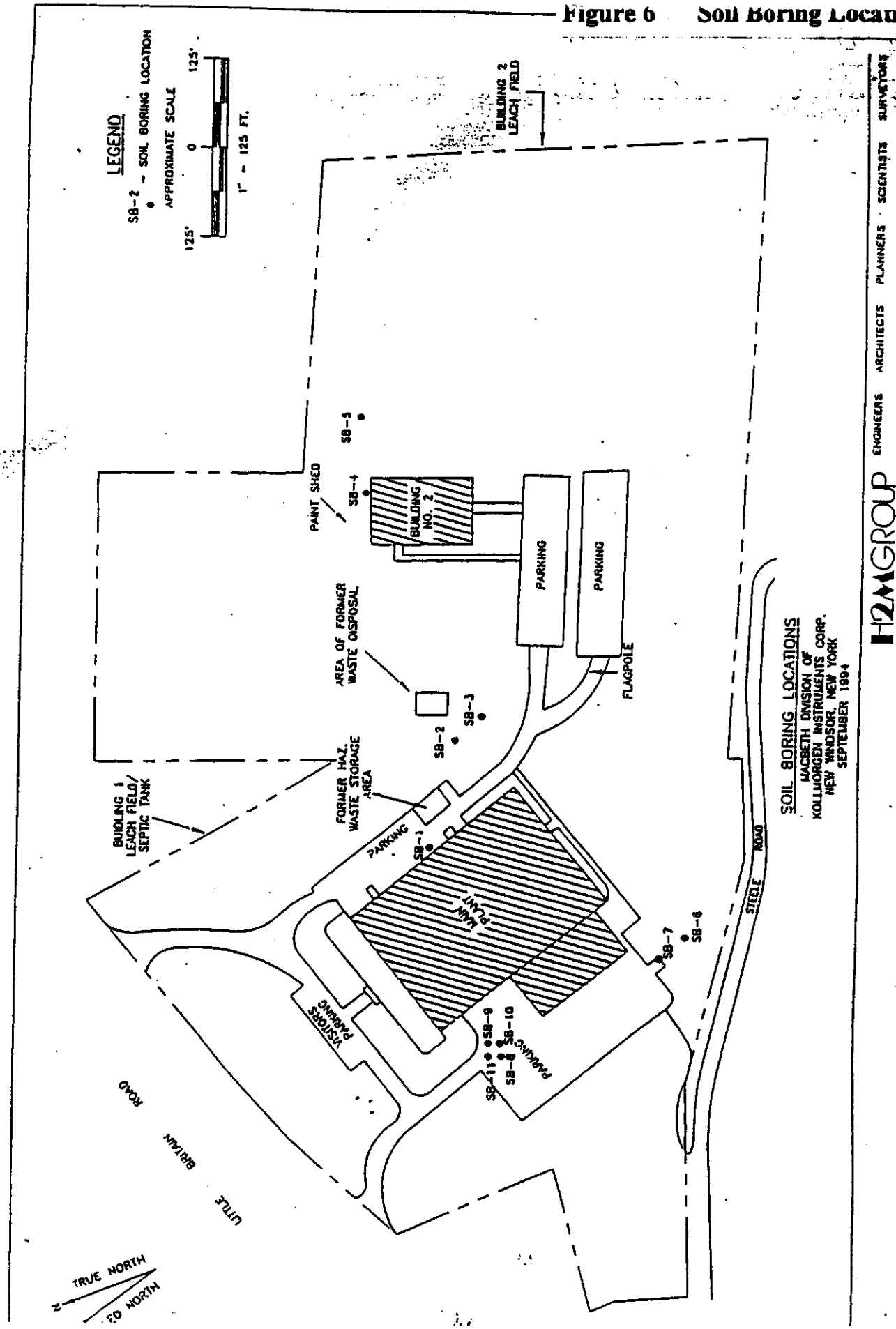
● - SOIL GAS SURVEY POINT

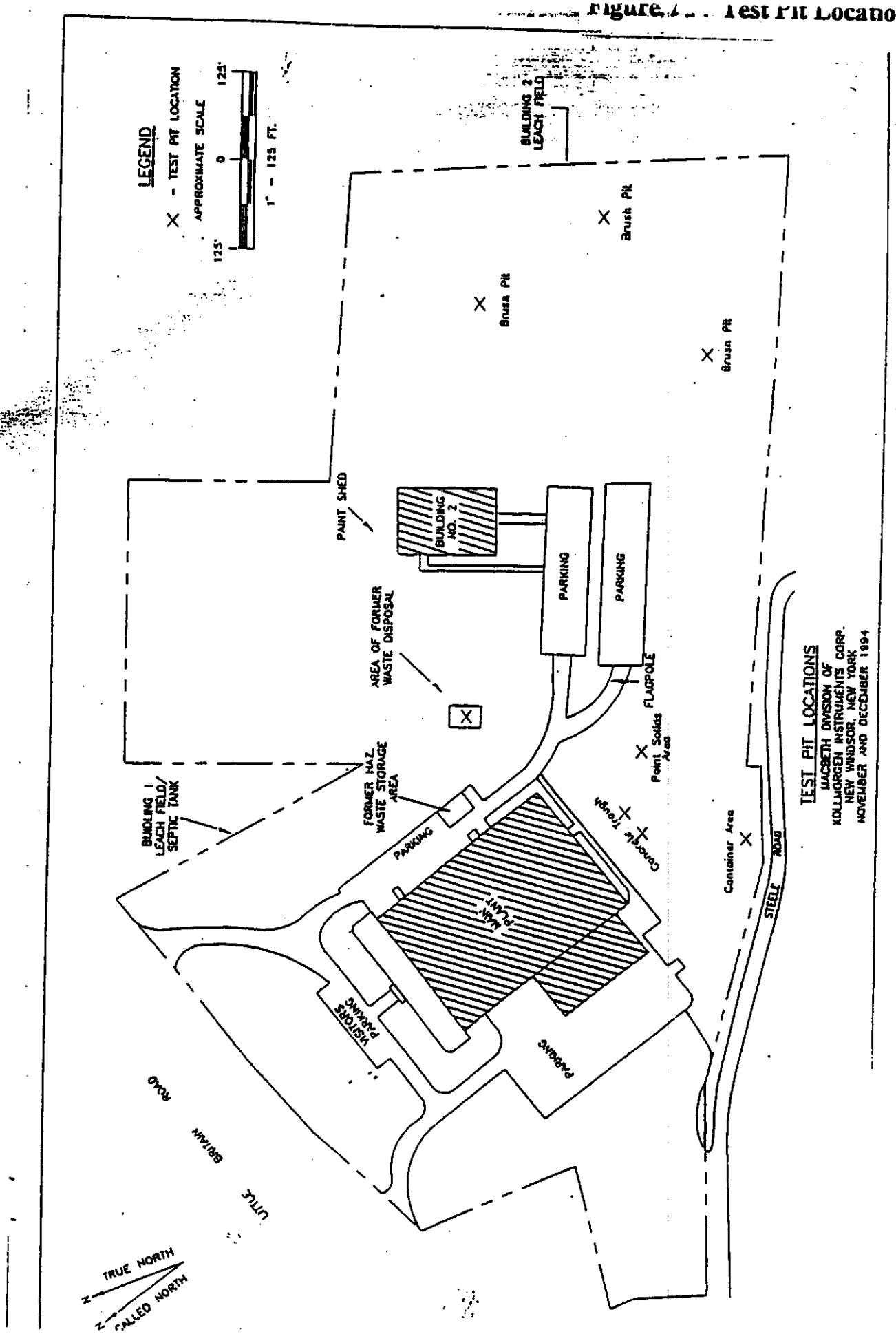
H:\2MAC9401\2MACGAS.DWG

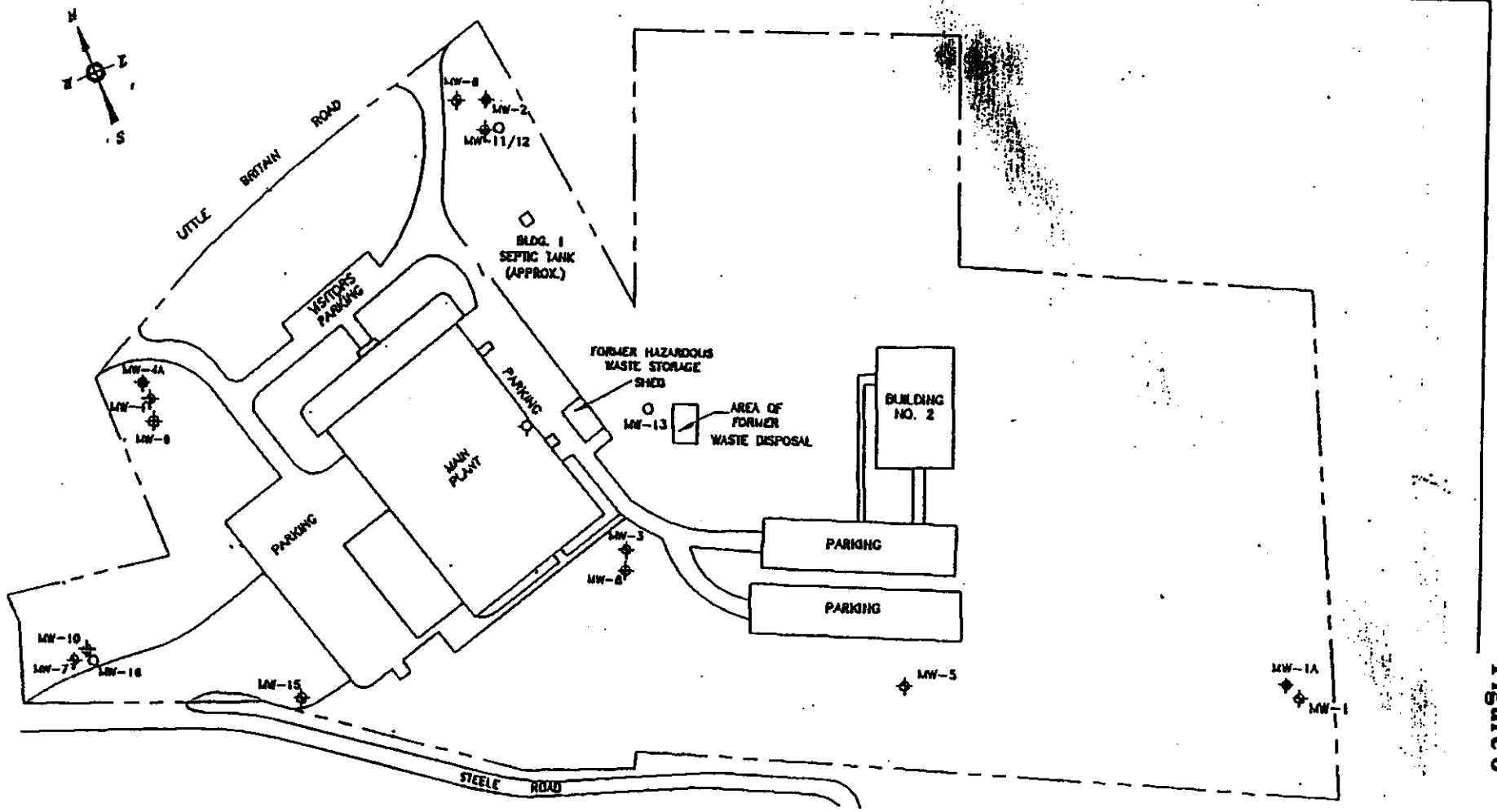
APPROXIMATE SCALE
125' 0 125'

H2MGROUP ENGINEERS · ARCHITECTS · PLANNERS · SCIENTISTS · SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.

Figure 5 Soil Gas Survey Network


LEGEND
SB-2 - SOIL BORING LOCATION
APPROXIMATE SCALE
125'
0
125'
1" = 125 FT.
BUILDING 2 LEACH FIELD
SB-5
PAINT SHED
SB-4
BUILDING NO. 2
PARKING
PARKING
AREA OF FORMER WASTE DISPOSAL
SB-3
SB-2
FLAGPOLE
FORMER HAZ. WASTE STORAGE AREA
BUILDING 1 LEACH FIELD/ SEPTIC TANK
PARKING
SB-1
MAIN PLANT
SB-7
SB-6
STEELE ROAD
VISITORS PARKING
SB-11
SB-9
SB-10
SB-8
PARKING
UTICA BUFFALO ROAD
TRUE NORTH
MAGNETIC NORTH
SOIL BORING LOCATIONS
MACBETH DIVISION OF
KOLLMORGEN INSTRUMENTS CORP.
NEW WINDSOR, NEW YORK
SEPTEMBER 1994
H2MGROUP ENGINEERS ARCHITECTS PLANNERS SCIENTISTS SURVEYORS


LEGEND
X - TEST PIT LOCATION
APPROXIMATE SCALE
125'
0
125'
1" = 125 FT.
BUILDING 2 LEACH FIELD
Brush Pit
Brush Pit
Brush Pit
PAINT SHED
BUILDING NO. 2
PARKING
PARKING
AREA OF FORMER WASTE DISPOSAL
FLAGPOLE
Paint Solids Area
FORMER HAZ. WASTE STORAGE AREA
BUILDING 1 LEACH FIELD/ SEPTIC TANK
PARKING
Concrete Trough
MAIN PLANT
Container Area
STEELE ROAD
VISITORS PARKING
PARKING
BRIHAM ROAD
LITTLE
TRUE NORTH
CALLED NORTH
TEST PIT LOCATIONS
MACBETH DIVISION OF
KOLLMORGEN INSTRUMENTS CORP.
NEW WINDSOR, NEW YORK
NOVEMBER AND DECEMBER 1994



LEGEND

- MW-1A — OVERBURDEN MONITORING WELL
- MW-3 — SHALLOW BEDROCK MONITORING WELL
- MW-6 — INTERMEDIATE BEDROCK MONITORING WELL
- MW-12 — DEEP BEDROCK MONITORING WELL

MONITORING WELL LOCATION MAP
MACBETH DIVISION OF
KOLLMORGEN INSTRUMENTS CORP.
NEW WINDSOR, NEW YORK
DECEMBER 1985

APPROXIMATE SCALE:
125' 0 125'

H:\ZMAC9401\94JRIFS\GDWATER\WELLS

H2MGROUP ENGINEERS · ARCHITECTS · PLANNERS · SCIENTISTS · SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.

Figure 8 Monitoring Well Location

MACBETH KOLLMORGEN Inactive Hazardous Waste Site

02/26/97

Figure 9 IRM Areas

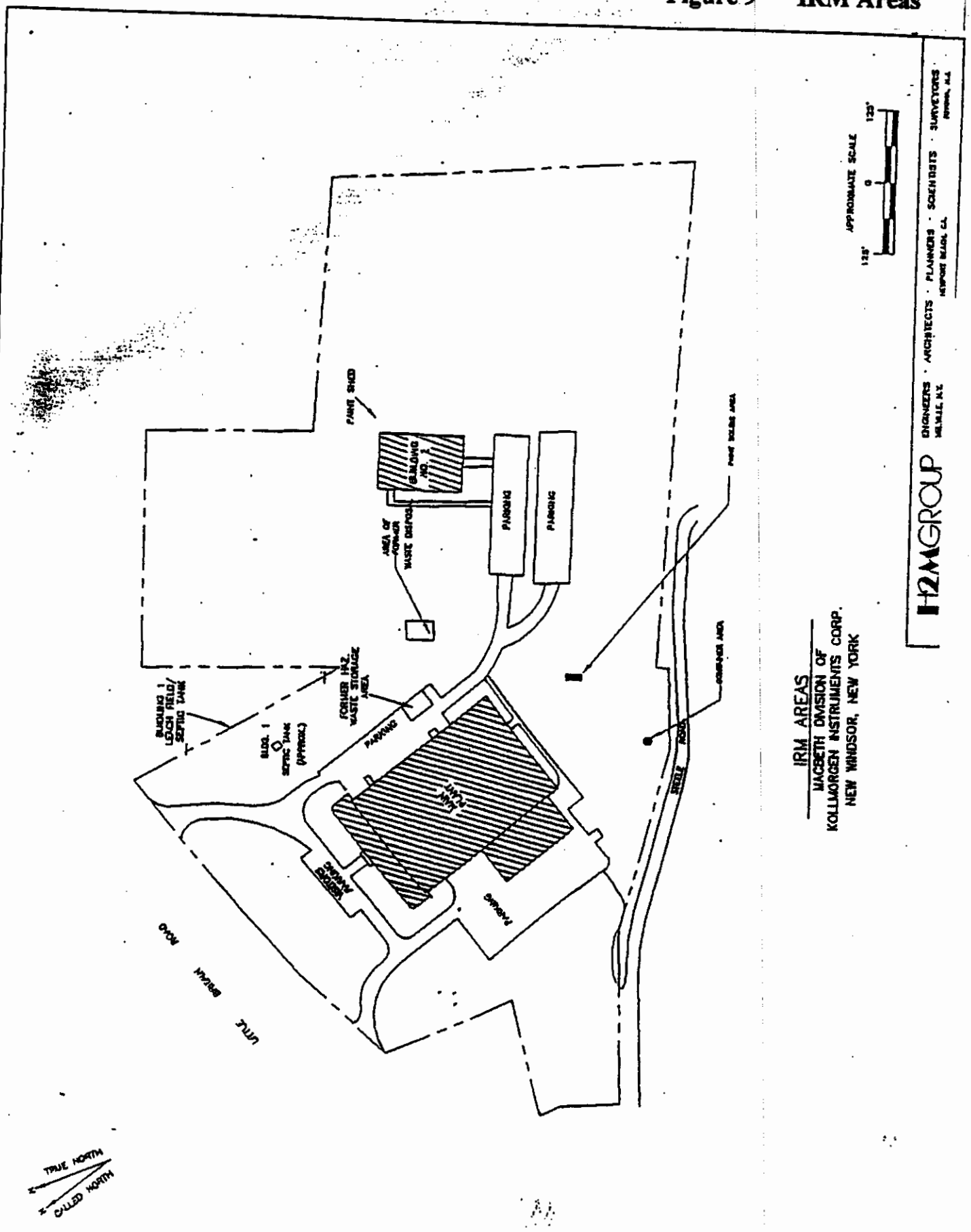


Table 1
Nature and Extent of Contamination
Results From RI/FS

MEDIA	CLASS	CONTAMINANT OF CONCERN	CONCENTRATION RANGE (ppb)	FREQUENCY of EXCEEDING SCGS	SCG (ppb)
Groundwate	Volatile	1,1,1-	ND (.001) to 66	2 of 32	5
		1,1-Dichloroethane	ND to 67	7 of 32	5
		Chloroethane	ND to 150	4 of 32	5
		Trichloroethene	ND to 80	4 of 32	5
		1,2-Dichloroethene	ND to 170	3 of 32	5
		Toluene	ND to 35	3 of 32	5
		Xylene	ND to 13	1 of 32	5
Soils	Volatile Organics	1,1,1-Trichloroethane	ND to 23	0 of 33	800
		Tetrarchloroethene	ND to 75	0 of 33	1400
		Trichloroethene	ND to 9	0 of 33	700
		Acetone	ND to 250	1 of 33	200
		Xylene	ND to 190	0 of 33	1200

Table 2 Groundwater Results From Round One

January 11 - January 12, 1995
Macbeth Division of Kollmorgen Instruments Corporation
New Windsor, New York
NYSDEC Site No. 3-36-037

	Overburden Wells		Shallow Bedrock Wells							
Parameter	MW-1A	MW-2	MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-15	NYSDEC Standard (a)
,1,1-Trichloroethane	< 10	2 J	< 10	2 J	< 10	< 10	< 10	1 J	2 J	5
,1-Dichloroethane	< 10	< 10	< 10	14	< 10	< 10	< 10	< 10	3 J	5
hloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
etrachloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	2 J	< 10	5
richloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
2-Dichloroethene (total)	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
1-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
inyl Chloride	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	2
oluene	4 J	< 10	18	< 10	2 J	< 10	< 10	< 10	8 J	5
hylbenzene	< 10	< 10	2 J	< 10	< 10	< 10	< 10	< 10	< 10	5
ylene (total)	< 10	1 J	13	6 J	< 10	< 10	< 10	2 J	3 J	5 (b)
nzene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0.7
Methyl-2-Pentanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	9 J	< 10	NS
thylene Chloride	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	2 J	5
etone	< 10	6 J	< 10	< 10	10 J	< 10	< 10	< 10	< 10	50 (c)
tal Targeted Compounds:	4	9	33	22	12	0	0	14	18	100

	Intermediate Bedrock Wells				Deep Bedrock Wells			Trip	NYSDEC
ameter	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-16	Blank	Standard (a)
1-Trichloroethane	< 10	< 10	< 10	< 10	< 10	14	< 10	< 10	5
Dichloroethane	< 10	< 10	< 10	< 10	< 10	15	61	< 10	5
oroethane	< 10	< 10	< 10	< 10	< 10	< 10	150	< 10	5
achloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
hloroethene	< 10	< 10	< 10	14	72	4 J	< 10	< 10	5
Dichloroethene (total)	< 10	< 10	< 10	7 J	84	2 J	< 10	< 10	5
Dichloroethene	< 10	< 10	< 10	< 10	< 10	2 J	< 10	< 10	5
l Chloride	< 10	< 10	< 10	< 10	2 J	< 10	< 10	< 10	2
ene	11	< 10	< 10	< 10	3 J	35	2 J	2 J	5
ibenzene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
ne (total)	4 J	< 10	< 10	< 10	5 J	8 J	< 10	< 10	5 (b)
ene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0.7
thyl-2-Pentanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS
yiene Chloride	< 10	< 10	3 J	3 J	2 J	2 J	3 J	< 10	5
one	< 10	< 10	< 10	< 10	< 10	6 J	< 10	< 10	50 (c)
Targeted Compounds:	15	0	3	24	168	88	216	2	100

Not detected at the Contract Required Detection Limit (CRDL) shown.
stimated value for a compound which is present below the CRDL.
ntrations in bold italics 18 are above NYSDEC standards.
s. screened in the overburden, was dry (consistent with historical sampling episodes), preventing sample collection.
YSDEC Division of Water T.O.G.S. 1.1.1, October 1993, Ambient Water Quality Standards and Guidance Values.
landard for xylene is for each individual isomer.
uidance value only.

Table 3 Groundwater Results From Round Two

NYSDEC Site No. 3-36-037

	Overburden Wells		Shallow Bedrock Wells							NYSDEC
rameter	MW-1A	MW-2	MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-15	Standard (a)
,1,1-Trichloroethane	< 10	1 J	< 10	9 J	< 10	< 10	< 10	1 J	< 10	5
,1-Dichloroethane	< 10	< 10	< 10	65	< 10	< 10	< 10	< 10	< 10	5
,2-Dichloroethane	< 10	< 10	< 10	1 J	< 10	< 10	< 10	< 10	< 10	5
hloroethane	< 10	< 10	< 10	4 J	< 10	< 10	< 10	< 10	< 10	5
trachloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	2 J	< 10	5
richloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
,2-Dichloroethene (total)	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
,1-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
inyl Chloride	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	2
oluene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
thylbenzene	< 10	< 10	< 10	10 J	< 10	< 10	< 10	< 10	< 10	5
ylene (total)	< 10	< 10	< 10	18	< 10	< 10	< 10	< 10	< 10	5 (b)
enzene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0.7
Methyl-2-Pentanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS
ethylene Chloride	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
etone	< 10	< 10	< 10	< 10	< 10	2 J	< 10	< 10	2 J	50 (c)
tal Targeted Compounds:	0	1	0	107	0	2	0	3	2	100

	Intermediate Bedrock Wells				Deep Bedrock Wells			Trip	NYSE
ameter	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-16	Blank	Standar
,1-Trichloroethane	< 10	< 10	3 J	< 10	< 10	66	< 10	< 10	5
-Dichloroethane	< 10	< 10	26	< 10	< 10	22	67	< 10	5
-Dichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
oroethane	< 10	< 10	12	< 10	< 10	24	130	< 10	5
rachloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
hloroethene	< 10	< 10	< 10	3 J	80	15	1 J	< 10	5
Dichloroethene (total)	< 10	< 10	< 10	1 J	170	11	< 10	< 10	5
Dichloroethene	< 10	< 10	< 10	< 10	< 10	2 J	< 10	< 10	5
yl Chloride	< 10	< 10	< 10	< 10	3 J	< 10	< 10	< 10	2
ene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
ibenzene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
ne (total)	< 10	< 10	< 10	< 10	< 10	1 J	< 10	< 10	5 (b)
ene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0.7
thyl-2-Pentanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS
yiene Chloride	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5
one	< 10	3 J	< 10	< 10	3 J	< 10	< 10	< 10	50 (c)
Targeted Compounds:	0	3	41	4	256	141	198	0	100

Not detected at the Contract Required Detection Limit (CRDL) shown.
timated value for a compound which is present below the CRDL.
trations in bold italics *18* are above NYSDEC standards.
s, screened in the overburden, was dry (consistent with historical sampling episodes), precluding sample collection.
YSDEC Division of Water T.O.G.S. 1.1.1. October 1993, Ambient Water Quality Standards and Guidance Values.
tandard for xylene is for each individual isomer.
uidance value only.

Table 4 Residential Well Results

Volatile Organic Compounds Quantified in Homeowner Wells (ppb)
7 Steele Road
New Windsor, New York

Parameter	Oct-90	Nov-90	May-91	Jul-91	Oct-91	Jan-92	Apr-92	Jul-92	Oct-92	Jan-93
1,1,2,2-Tetrachloroethane	***25***	***38***	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	< 0.5	< 0.5	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	***19***	***21***	< 1	< 1	< 1	***10***	***7***	***17***	2	***14***
1,1-Dichloroethane	2	2	< 1	< 1	< 1	< 1	< 1	1	< 1	< 1
Chloroethane	< 0.5	< 0.5	***15***	< 1	< 1	< 1	< 1	2	3	< 1
Tetrachloroethene	< 0.5	< 0.5	4	< 1	< 1	< 1	1	***6***	< 1	***7***
Total:	46	61	24	0	0	10	8	26	5	21

Parameter	Apr-93	Jul-93	Oct-93	Jan-94	Apr-94	Jul-94	Oct-94	Jan-95	Apr-95	Jul-95
1,1,1-Trichloroethane	***11***	3	***18***	***17***	***6***	***6***	1	***7***	4	***6***
Chloroethane	< 1	1	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1
Tetrachloroethene	3	1	***6***	***6***	1	1	< 1	3	< 1	1
Total:	14	5	24	23	7	7	2	10	4	7

Parameter	Oct-95	Jan-96	Apr-96	Jul-96	Oct-96	Jan-97
1,1,1-Trichloroethane	***11***	4	3	2	3	2
Tetrachloroethene	4	2	1	< 1	1	< 1
Total:	15	6	4	2	4	2

Notes:
Other volatile organic compounds were analyzed for but not detected.
These results represent influent water quality before GAC treatment.
Compounds in bold italic exceed NYSDOH drinking water standard of 5 ppb.

Table 5 Residential Well Results

Volatile Organic Compounds Quantified in Homeowner Wells (ppb)
419 Little Britain Road
New Windsor, New York

Parameter	Nov-90	May-91	Jul-91	Oct-91	Nov-91	Jan-92	Apr-92	Jul-92	Oct-92	Jan-93
1,1,1-Trichloroethane	***17***	***5***	***20***	***13***	< 1	4	***7***	***5***	3	3
1,1-Dichloroethane	***5***	< 1	***6***	***6***	< 1	< 1	3	4	2	2
Chloroethane	< 0.5	< 2	< 2	***5***	< 1	< 1	< 1	1	1	< 1
Trichloroethene	< 0.5	< 1	2	<1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	< 0.5	< 1	1	3	< 1	4	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 1	< 1	2	< 1	4	< 1	< 1	< 1	< 1
Dibromochloromethane	< 0.5	< 1	< 1	< 1	< 1	3	< 1	< 1	< 1	< 1
Total:	22	5	29	29	0	15	10	10	6	5

Parameter	Apr-93	Jul-93	Oct-93	Jan-94	Apr-94	Jul-94	Oct-94	Jan-95	Apr-95	Jul-95
1,1,1-Trichloroethane	3	4	3	4	< 1	< 1	< 1	< 1	< 1	1
1,1-Dichloroethane	3	3	4	***6***	< 1	< 1	< 1	< 1	< 1	2
Chloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1
Chloroform	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1
Total:	6	7	7	10	0	0	0	0	0	5

Parameter	Oct-95	Jan-96	Apr-96	Jul-96	Oct-96	Jan-97
1,1,1-Trichloroethane	1	1	< 1	< 1	1	1
1,1-Dichloroethane	3	3	< 1	2	3	2
Chloroethane	< 1	2	< 1	< 1	< 1	< 1
Total:	4	6	0	2	4	3

Notes:
Other volatile organic compounds were analyzed for but not detected.
These results represent influent water quality before GAC treatment.
Compounds in bold italic exceed NYSDOH drinking water standard of 5 ppb.

APPENDIX A

Administrative Record

Order on Consent , Index # W3-0541-91-01, NYSDEC, February 1994

Remedial Investigation/ Feasibility Study Workplan, H2M Inc., July 1994

Citizen Participation Plan, H2M Inc., July 1994

Remedial Investigation Report, H2M Inc., December 1995

IRM Workplan, H2M Inc., November 1994

IRM Report, H2M Inc., June 1995

Feasibility Study Report, H2M Inc., February 1996

Proposed Remedial Action Plan, NYSDEC, July 1996

Responsiveness Summary, NYSDEC, January 1997

APPENDIX B
RESPONSIVENESS SUMMARY

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) held a public meeting on August 7, 1996 at the New Windsor Town Hall to discuss and receive public comment on the findings of the Remedial Investigation/Feasibility Study (RI/FS) and the NYSDEC's Proposed Remedial Action Plan (PRAP) for the Macbeth Kollmorgen inactive hazardous waste disposal site. The RI/FS was performed by H2M, consultants retained by Kollmorgen Instrument Corporation, the parent company of Macbeth Kollmorgen. Present at the public meeting were representatives from NYSDEC, NYSDOH, H2M, Macbeth Kollmorgen, concerned citizens and the news media.

The PRAP and the FS were made available for public viewing by February 21, 1996 at the following document repositories established for this site;

Newburgh Free Library
124 Grand Street
Newburgh, NY 12550
(914) 561- 1985
Mon-Thurs 9:00- 5:00
Fr. Sat 9:00- 5:00
Sun 1:00- 5:00

New Windsor Town Hall
555 Union Avenue
New Windsor, NY 12553
(914) 565- 8803
Mon. - Fri. 9:00- 4:30

NYSDEC Region 3
21 South Putt Corners Road
New Paltz, NY 12561
(914) 256-3052
Mon. - Fri. 9:00- 4:30

During the public comment period which extended from July 22, 1996 to August 23, 1996, several letters were received commenting on the PRAP. Letters were submitted by Steele Road Homeowners Association, Ms. Louise Eriksen, Mr. David Rider, Central Hudson Gas & Electric Corporation, Kollmorgen, Ms. Sharon Owejan, and Mr. William Shumskis.

The following Responsiveness Summary was prepared by the New York State Departments of Environmental Conservation (NYSDEC) and Health (NYSDOH) in response to public questions, comments and concerns received for the Proposed Remedial Action Plan for the Macbeth Kollmorgen inactive hazardous waste disposal site (#336037). This responsiveness summary is a compilation of comments received during the August 7, 1996 public information meeting held at the New Windsor Town Hall and the letters received during the PRAP comment period.

Comment 1.
Could there have been injury/death to people if the project had not been pushed forward?
Response.
During the investigation, contamination was detected in several private drinking water wells in concentrations exceeding NYSDOH public drinking water standards. Long term exposure to these contaminants at concentrations exceeding the standards may represent a health concern. Measures have been taken to eliminate the exposure to contaminants detected in the private wells sampled.

Comment 2.
A resident who lives three-quarters of the way up Steele Road was concerned about the possibility of gasoline leaking into home owners wells.
Response.
There has been no gasoline detected in the groundwater at the Macbeth Kollmorgen facility. The homes along the upper portion of Steele Road are upgradient of the site. The private wells located in the upper portion of Steel Road that were sampled by the NYSDOH did not indicate the presence of site-related contaminants.

Comment 3.
One resident has GAC filter and bottled water. Does this mean that the filter is not enough?
Response
The bottled water delivery was intended to provide drinking water for the residents until the GAC filters were installed, at which point the bottled water delivery was to discontinue. Due to an administrative error, the water company continued to provide bottled water to a resident for a year after the filters were installed.

Comment 4.
Were homes randomly selected for private well testing?
Response
NYSDOH - All residents in the vicinity of the site were sampled. The houses that form a circle around the facility were sampled first, then outward from there until contamination that may be related to the site was not detected in the water sample results.

Comment 5.
I found out about it (the Macbeth Kollmorgen site) later and had to request sampling for my well. Also, the sampling stopped because it was consistently non-detect. However, I saw strange

activities around my well and requested sampling again. I did not get it. I had to ask a private lab to sample and it cost $180.

Response
NYSDOH - This resident's well was sampled by the NYSDOH on August 15, 1996. The results indicate that the well water meets NYSDOH public drinking water standards for volatile organic contaminants. This well will be monitored on a periodic basis.

Comment 6.
When a well is sampled, how many chemicals are analyzed for? Just the contaminants of concern from the Macbeth Kollmorgen site?
Response
The well samples collected near the Macbeth Kollmorgen facility are analyzed for about 60 volatile organic compounds including the contaminants of concern. During site investigations, the focus shifts to particular compounds of concerns as the data is gathered.

Comment 7.
A resident of Steele Road requested the results of the sample collected from their well in 1991.
Response
NYSDOH- Since the NYSDOH was unable to locate the 1991 sample results, NYSDOH has resampled the homeowners well. The results indicate the drinking water meets NYSDOH public drinking water standards and were provided to the resident .

Comment 8.
A GAC filter is not sufficient. It is inconvenient and does not provide peace of mind. Public water should be extended.
Response
The extensive testing and monitoring performed at the Macbeth Kollmorgen facility demonstrates that many of the homes in the vicinity of the site are not affected by the on site contamination. Presently two homes have low levels of volatile organics below NYSDOH public drinking water standards in their untreated drinking water. Both wells are connected to granular activated carbon filtration systems which effectively removes the contamination from the drinking water. In addition, the wells are monitored every three months.

Comment 9.
What are the contaminant levels in residential wells?
Response
Tables 4 & 5 in the Record of Decision document the Volatile Organic Compounds in two residential wells that are connected to a filtration system. The Remedial Investigation report contains the sampling results from all of the homeowners wells.

Comment 10
Can any resident's well water be tested?

Response
NYSDOH- The DOH has sampled the residents surrounding the Macbeth Kollmorgen facility in November 1990 and Macbeth Kollmorgen has continued to monitor the residential wells at NYSDOH's request.

Comment 11.
Is H2M an independent consultant?
Response
H2M was contracted by Macbeth Kollmorgen to work with the NYSDEC. All field work is overseen by the NYSDEC.

Comment 12.
At what point in time did Macbeth Kollmorgen accept responsibility for the contamination?
Response
Macbeth Kollmorgen has accepted responsibility for the disposal areas located on their property. In 1991, when Macbeth Kollmorgen was informed of the contamination of the residents to the north, they extended their water lines to supply the affected homes. Later in 1991, Macbeth Kollmorgen provided two residents with granular activated carbon filtration systems.

Comment 13.
Macbeth Kollmorgen handled exposure as it existed, but what about the future?
Response
Macbeth Kollmorgen has altered their procedures and no longer utilize the solvents that were formerly disposed on site. Present and future waste management is subject to the Federal Resource Conservation and Recovery Act and NYS Hazardous Waste Regulations.

Comment 14
Why has the DEC delayed action for a solution and more authoritative action?
Response
The DEC and Macbeth Kollmorgen have proceeded with the site's investigation and cleanup as scheduled. The consent order negotiations and the investigation for the RI/FS is a long process that can take a number of years.

Comment 15
Why didn't the DEC impose strict time limits, as it has on other situations in our community?
Response
The other situation, Silver Stream Trailer park was a public health emergency. In that case, the drinking water for hundreds of residents was contaminated above NYSDOH public drinking water standards. In the area adjacent to Macbeth Kollmorgen site, all resident have drinking water that complies with NYSDOH public drinking water standards. Macbeth Kollmorgen has connected several residents to public water and has supplied other residents with Granular Activated Carbon filtration systems. Once these actions were completed, there was no contravention of NYSDOH public drinking water standards.

Comment 16.
How do you know that the soil borings were located in the right places?
Response
The soil borings were placed in locations that displayed an elevated reading during the site-wide soil gas survey.

Comment 17.
What is your degree of confidence that you have located all the sources on the site?
Response
The site has been throughly investigated. Since the late 1980's, there have been environmental investigations at the site. During the Remedial Investigation, the site-wide soil gas survey was intended to detect any additional on site sources. The test pitting took place at any location on the site that appeared suspicious, for example at mounds or depressions. The groundwater monitoring program at the site intercepts four groundwater zones for a complete picture of on-site conditions.

Comment 18.
Did landscaping (creation of mounded areas) affect finding contamination?
Response
The mounded areas located behind the facility were investigated during the test pit phase. The mounds appear to be piles of excess dirt from past landscaping procedures.

Comment 19.
What is the direction of groundwater flow in relation to Steele Road?
Response
Groundwater flows from the rear of Macbeth Kollmorgen's facility towards Little Britain Road. Most of Steele Road is located upgradient of the facility and therefore is less likely to be affected by groundwater contamination on site.

Comment 20
What is the direction of groundwater flow at the facility.
Response
The groundwater at the site travels in two general directions. From the bedrock ridge that occurs behind the Macbeth Kollmorgen facility the groundwater travels to both the north east and the west.

Comment 21.
Does the Feasibility Study factor in homes with contamination below drinking water standards?
Response
The Remedial Investigation gathers data for wells that may potentially be impacted by contamination at the site. If the data indicate that some wells presently within NYSDOH public drinking water standards, may in the future exceed them, the PRAP and ROD address that concern by requiring Macbeth Kollmorgen to provide water that meets NYSDOH public drinking water standards.

Comment 22
Does the Feasibility Study include the psychological and financial (can not sell homes) impact on homeowners?
Response
DEC does not have the expertise or mandate to evaluate psychological or financial impact on homeowners because of contamination. These impacts are indirectly considered when evaluating community acceptance of the proposed remedy. The Feasibility Study uses eight criteria to select a remedial action at a site. The criteria include Compliance with New York State Standards, Criteria, and Guidance (SCGs), Protection of Human Health and the Environment, Short-term Effectiveness, Long-term Effectiveness and Permanence, Reduction of Toxicity, Mobility or Volume, Implementability, Cost, and Community Acceptance.

Comment 23.
Extension of public drinking water to all homes would be the best solution.
Response
The extensive testing and monitoring performed at the Macbeth Kollmorgen facility demonstrates that many of the homes in the vicinity are not affected by the on site disposal. Presently two homes have low levels of volatile organics in their raw drinking water. The levels present in both wells are below NYSDOH public drinking water standards. Both homes have been supplied with granular activated carbon filtration systems and are monitored on a quarterly basis by H2M, Macbeth Kollmorgen's consultant. NYSDEC can only enforce a remedial action, such as providing public water to affected residents, if there is a contravention of NYSDOH public drinking water standards.

Comment 24.
Has Macbeth Kollmorgen been asked to provide public water?
Response
The DEC has asked Macbeth Kollmorgen to provide municipal water to the Steel Road residents and the vicinity. Also see Comment and Response 23 above.

Comment 25
Macbeth Kollmorgen should be a "good neighbor" and extend public water.
Response
It is the DEC's understanding that Macbeth Kollmorgen and the City of Newburgh are negotiating an extension of their water district to incorporate the impacted residents wells.

Comment 26.
When will the GAC filters come off?
Response
The level of contaminants entering homeowner wells has been decreasing. After five consecutive readings below NYSDOH drinking water standards, Macbeth Kollmorgen may petition the DOH to remove the GAC filters.

Comment 27.
The Steele Road Homeowners Association believe Macbeth Kollmorgen should supply the residents of Steele Road and vicinity with municipal water.
Response
See Response #23 above.

Comment 28
Why is DEC proposing to reclassify Macbeth Kollmorgen from a class 2 to a class 4.
Response
Macbeth Kollmorgen has performed an in-depth investigation of their site. The Interim Remedial Measures conducted on site have alleviated all known soil contamination. A class 4 on the NYSDEC Registry of Inactive Hazardous Waste Disposal sites is defined as a site that has been remediated and requires further monitoring and management of treatment systems.

Comment 29
The PRAP proposes that Macbeth Kollmorgen continue to monitor four on-site wells. Why are they being asked to monitor deep bedrock wells?
Response
DEC has proposed that Macbeth Kollmorgen monitor intermediate and deep wells on-site to ensure the levels in the wells with the highest concentrations decrease. If these concentrations do not decrease, additional wells may be monitored.

Comment 30
The PRAP does not discuss Applicable or Relevant and Appropriate Requirements (ARARs) and should be revised to do so.
Response
This PRAP proposes a no further action alternative because, the Interim Remedial Measures conducted at the site meet the environmental Standards, Criteria, and Guidance (SCGs) which include ARARs.

Comment 31
Was the notification for the public meeting random ?
Response
The citizen participation plan requires the notification of the site contact list, which consists of all adjoining property owners, elected officials, the news media, and interested and affected parties. Any citizen who expresses interest or concern and is not presently on the contact list, will be added to the contact list.

Comment 32.
Why has there been no interaction with the Town of New Windsor?
Response
The Town of New Windsor has been notified of both the RI/FS and PRAP for the Macbeth Kollmorgen site. The Town has stated that they would install municipal water for the residents in the Steele Road vicinity, as soon as the residents form their own water district.