BASIS OF DESIGN REPORT

Soil Remediation Program
Maestri Site
Geddes, New York

Stauffer Management Company
Wilmington, Delaware

September 1995

O'BRIEN & GERE
ENGINEERS, INC.

5618.005

Basis of Design Report

Soil Remediation Program
Maestri Site
Geddes, New York

Stauffer Management Company
Wilmington, Delaware

David G. Van Arnam, P.E.
Senior Vice President

September 1995

O'BRIEN & GERE ENGINEERS, INC.

5000 Brittonfield Parkway
PO Box 4873
Syracuse, New York 13221

Contents

1. Introduction 1

1.1. General 1
1.2. Project background 1
1.2.1. Site description 1
1.2.2. Chronology of events 2
1.2.3. Previous soil investigations 5
1.2.5. Ground water recovery and treatment IRM 8
1.3. Remedial action objectives 9

2. Pre-design supplemental soil investigation results 13

2.1. General 13
2.2. Soil boring locations and depth 13
2.3.1. Soil type 14
2.3.2. Contamination concentrations 15

3. Soil remediation program 17

3.1. General 17
3.2. Limits of proposed excavation 17
3.3. Estimated volumes and contaminant levels 18
3.4. Proposed remedial actions 19
3.4.1 Initial sampling and segregation of excavated soils 19
3.4.2. Screening/mechanical processing phase 20
3.4.3. Biological treatment Process 22
3.4.4. Air emission control 24
3.4.5. Construction water handling 24
3.5. Verification sampling 25
3.5.1. Sampling of processed soils 25
3.5.2. Sampling of excavation residues 25
3.6. Excavation backfill/restoration 25

4. Ground water recovery and treatment system 27

4.1. General 27
4.2. Location of recovery wells 27
4.3. Estimated flow rates and concentrations 28
4.4. Treatment system evaluation/modifications 28

Tables

1. Soil borings VOC data - 1989
2. Soil borings SVOC data - 1989
3. Soil borings inorganics data - 1989
4. Soil borings PCB/pesticide data - 1989
5. Soil borings data summary
6. Soil borings VOC data 1995
7. Soil borings SVOC data - 1995

Figures

1. Site location plan
2. Site topographic map
3. Site map (enlarged)
4. Soil boring locations plan
5. Soil treatment processing flow sheet
6. Mechanical screening process schematic
7. Proposed limits of excavation
8. Cross-section A-A'
9. Cross-section B-B'
10. Cross-section C-C'
11. Proposed soil treatment plan
12. Soil treatment pile cross-section
13. Bioremediation cell plan (below soils)
14. Bioremediation cell plan (above soils)
15. Soil treatment/control building

Appendices

A. Soil boring logs - 1989
B. Soil boring logs - 1995
C. Volatile organic compounds laboratory report - 1995
D. Semi-volatile organic compounds laboratory report - 1995

1. Introduction

1.1. General

This report presents the Basis of Design of the soil remediation program for the Maestri site located at 904 State Fair Boulevard in the Town of Geddes, New York. The site location is presented in Figure 1. The soil remediation program is being developed to address soils exhibiting volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) at the Maestri site pursuant to the Remedial Design/Remedial Action Work Plan dated July 1995 that was approved by the New York State Department of Environmental Conservation (NYSDEC) in a letter dated August 16, 1995.

This section of the Basis of Design Report presents background information pertaining to the site and the chronology of events and also presents a summary of the previous soil investigations and remedial activities, and the currently operating ground water recovery and treatment interim remedial measure (IRM).

1.2. Project background

1.2.1. Site description

The Maestri site, depicted in Figure 2, is approximately 6.9 acres in area and is covered by grass, brush and wooded areas. Onondaga Lake, located approximately 1,500 ft northeast of the site, is the nearest surface water body to the site. Topography of the site is characterized by gently sloping grades which fall to the northeast at slopes up to 5 percent. The site is bordered by State Fair Boulevard

to the southwest and residences along Alhan Parkway to the northeast. The lots located northwest and southeast of the site are heavily wooded.

Presently, a 2.8 acre portion of the site near Alhan Parkway is cleared and secured with an 8-ft high chain-linked security fence and two locked gates. A gravel road extends from State Fair Boulevard to the secured portion of the site. A ground water treatment building, concrete pads, monitoring wells, recovery wells, piezometers, and former drum disposal areas are also present at the site and are shown in Figure 3.

1.2.2. Chronology of events

This section presents the general chronology of major activities and site related events, as follows:

- 1970's - Drums containing industrial waste materials, allegedly generated by Stauffer Chemical Company, were buried at the site.
- 1987 - Bert Maestri reportedly excavated soil and drums from an area of the site as depicted on Figure 3. Following characterization by the New York State Department of Health (NYSDOH), the excavated materials were disposed at the CECOS/CER landfill in Ohio.
- 1987 - Malcolm Pirnie, Inc. conducted a site investigation on behalf of the Onondaga County Health Department (OCHD) to evaluate the environmental effects of the former waste disposal area in the northeastern portion of the site.
- 1987 - NYSDEC placed the site on the NYS Registry of Inactive Hazardous Waste Sites (Registry Site #7-34-025).
- 1988 - The Stauffer Management Company (SMC) in cooperation with the NYSDEC, voluntarily agreed to conduct a site investigation to evaluate the necessity for IRMs.
- October 4, 1988 - NYSDEC and SMC executed an Order on Consent (#A7-0139-88-01) for development and implementation of an IRM.

- June 1989 - Site investigations began, which included: soil vapor survey; geophysical survey; monitoring well installation; soil boring completion; air sampling; and sampling of surface soil, subsurface soil, and ground water. A geophysical anomaly discovered during the investigation was identified as buried drums.

- January 1990 - SMC submitted an *Interim Remedial Measure* (IRM) - *Anomaly Excavation and Removal Work Plan*, developed by O'Brien & Gere Engineers, to NYSDEC for review and approval.

- March 1990 - SMC submitted the *Site Investigation and Development of Interim Remedial Measures (SIDIRM) Initial Report* to NYSDEC, which documented the results of the site investigation.

- June 8, 1990 - SMC agreed to complete additional investigations necessary to fulfill the objectives of the IRM program.

- October 1990 - NYSDEC approved a modified Work Plan, submitted by OHM Corporation (OHM) on behalf of SMC, for anomaly (buried drums) excavation.

- December 1990 - OHM completed the anomaly excavation.

- February 1991 - An indoor air monitoring program was implemented, by O'Brien & Gere Engineers, Inc. on behalf of SMC, at selected residences located on Alhan Parkway which are hydraulically downgradient of the site.

- June 18,1991 - SMC submitted the *Final Report for Excavation of Drums and Soil*, developed by OHM Corporation, to NYSDEC.

- January 1992 - SMC submitted the *Basis of Design Report*, developed by O'Brien & Gere Engineers, to NYSDEC for the ground water recovery and treatment system IRM.

- March 1992 - SMC submitted the *Yield Test Evaluation Report*, developed by O'Brien & Gere Engineers, to NYSDEC

- March 1992 - SMC submitted the *Yield Test Evaluation Report*, summarizing the aquifer performance tests of the recovery wells.

- April 1992 - SMC submitted a Focused *Remedial Investigation/ Feasibility Study Work Plan*, prepared by O'Brien & Gere Engineers, to NYSDEC.

- May 1992 - SMC initiated operation of the ground water recovery and treatment system.

- September 1992 - Results of field investigations were presented in the SIDIRM *Final Report*, developed by O'Brien & Gere Engineers, which was submitted to the NYSDEC by SMC.

- December 16, 1992 - NYSDEC and SMC executed an Order on Consent (#A7-0226-90-03) for performance of an RI/FS at the site.

- December 1992 - NYSDEC approved the Focused RI/FS *Work Plan*.

- June 1993 - SMC submitted the *Ground Water Recovery Wells Effectiveness Report*, developed by O'Brien & Gere Engineers, to NYSDEC.

- December 1993 - Drums which were identified during the focused RI, containing industrial waste, were excavated by OBG Technical Services on behalf of SMC according to the IRM work plan.

- February 1994 - SMC submitted the *Focused Remedial Investigation Report*, developed by O'Brien & Gere Engineers, to NYSDEC.

- July 1994 - NYSDEC approved the *Focused Remedial Investigation Report*.

- August 1994 - SMC submitted the *Ground Water Recovery System Performance Test Report*, developed by O'Brien & Gere Engineers, to NYSDEC.

- September 1994 - SMC submitted the *Feasibility Study* Report, developed by O'Brien & Gere Engineers, to NYSDEC.

- December 1994 - NYSDEC finalized the *Proposed Remedial Action Plan* (PRAP). The public comment period was open from December 29,1994 through February 11,1995 to receive comments.

- January 19, 1995 - NYSDEC hosted a public meeting to present the results of the FS and PRAP for public comment.

- March 1995 - NYSDEC finalized the transcript of the January 19, 1995 public meeting and the Responsiveness Summary to the Public Meeting.

- March 1995 - NYSDEC issued the *Record of Decision* (ROD).

- April 24, 1995 - SMC agreed to undertake the remedial actions identified in the ROD in accordance with the Order on Consent (#A7-0226-90-03).

- May 4, 1995 - SMC met with NYSDEC regarding the proposed content of the RD/RA Work Plan, implementation of the selected remedy, and schedule for remedial design and construction activities. At this meeting it was agreed that a RD/RA Work Plan would be presented to the NYSDEC during the first week of June.

- July 14, 1995 - SMC submitted the RD/RA Work Plan which was subsequently approved by the NYSDEC for implementation.

- July 25, 1995 - O'Brien & Gere Engineers submitted the Predesign Investigation (PDI) Work Plan to the NYSDEC for review. The Work Plan was subsequently approved by the NYSDEC for implementation.

- August 2 - 7, 1995 - SMC installed fourteen additional soil borings on site as described in the NYSDEC approved PDI Work Plan.

1.2.3. Previous soil investigations

In June 1989 during the Remedial Investigation (RI), eleven soil borings, designated B-1 through B-11, were advanced to the static ground water table at the locations shown on Figure 4. Ten of these

borings were completed in and around the main waste disposal area, while one boring (B-1) was completed approximately 360 ft southwest of the former disposal area as an indicator of site background conditions.

Soil samples collected from these borings were initially screened for the presence of VOCs in ambient air conditions with a photoionization detector (PID) (HNu Model P101-1). Samples were then placed in appropriate containers for subsequent headspace field screening for VOCs and laboratory analyses for VOCs and SVOCs in accordance with the approved QAPP. A total of 14 soil samples were submitted for laboratory analyses.

In addition, six samples were submitted for analyses for metals, PCBs, and pesticides. The results of the analyses are summarized in Tables 1,2,3 and 4 and are discussed in detail in the SIDIRM Final Report (O'Brien and Gere, September 1992).

During the RI, the predominant compound detected was xylene, with samples from soil borings B-3, B-7, B-9, and B-10 exhibiting xylene concentrations above 100 mg/kg. Soil in the vicinity of soil boring B-3 was subsequently removed during the drum removal activities conducted in December 1990 as part of an IRM. As such, the laboratory results presented for soil boring B-3 do not represent existing conditions.

A summary of boring depths, fill thickness, depths to ground water, and associated sample screening data are presented in Table 5. Soil boring logs are presented in Appendix A.

Soil sample analytical results generated during the RI indicate the presence of residual concentrations of site-related contaminants in subsurface soils near the former drum disposal areas. Concentrations of VOCs predominantly xylene, were detected in the subsurface soils down to the ground water table (approximately 11 ft below grade). Soil sample analytical results also indicate the presence of SVOCs on site but did not indicate the presence of metals at concentrations above levels of concern.

The organic compounds listed below were detected in subsurface soils, at the indicated concentration ranges and frequencies (aside

from acetone, 2-butanone, methylene chloride, and phthalate esters, which were attributed to blank contamination):

Table 1-1. ***Listing of organic constituents detected in subsurface soils.***

Constituent	Concentration range (mg/kg)	Frequency of detection (# detections/ # samples)
xylene	0.002 - 9,700	20/21
toluene	0.002 - 47	8/21
ethylbenzene	0.002 - 20	9/21
tetrachloroethene (PCE)	0.097 - 250	3/21
2-methylphenol	0.076 - 4.8	7/22
2,4-dimethylphenol	1.9 - 48	5/22
benzoic acid	21-99	2/15

Note: The data summarized in this table was taken from the results generated as part of past RI activities. For additional information, refer to the Site Investigation report dated March 1990 and focused Remedial Investigation Report dated February 1994.

Naphthalene was detected in one surface soil sample and was considered an anomaly. Phenanthrene, fluoranthene, and pyrene were also detected in surface soils at the site, but were attributed in the Focused Remedial Investigation (RI) Report to anthropogenic background .

During the implementation of the 1992 Work Plan, four additional soil borings (SB-1 through SB-4) were advanced on-site at locations shown in Figure 4. Five soil samples were submitted for laboratory analyses for VOCs and SVOCs. As with the previously collected soil samples, the predominant compound detected was xylene. Soil boring SB-4 (8 to 10 feet) contained xylene at concentrations between 630 mg/kg and 710 mg/kg. This boring is located beside the 1987 Excavation Area and is within the center of the high concentration area identified by the passive soil gas survey. Boring SB-2 (4 to 6 feet) contained the second highest concentration of xylene at 39 mg/kg. The remainder of the soil borings exhibited xylene concentrations of less than 2 mg/kg.

1.2.4. Previous soil remediation

As presented in Section 1.2.2, buried metal drums and contaminated soil were reportedly excavated in 1987 by Bert Maestri. In 1990 and 1993, additional buried metal drums and contaminated soils were excavated as IRMs from the locations depicted on Figure 3. Following these excavation , clean-tested low-permeability material was used as backfill. Soil gas and geophysical survey data generated since then do not indicate the presence of additional buried drums on the site.

1.2.5. Ground water recovery and treatment IRM

Results of the ground water quality screening and ground water monitoring well sampling and analyses indicate the presence of site-related contaminants in the shallow overburden ground water. No site-related contaminants were detected in the bedrock ground water. The organic compounds listed below were detected in shallow ground water during the RI, at the following concentration ranges and frequencies (excluding 2-butanone and carbon disulfide which were attributed to blank contamination):

Table 1-2. *Listing of organic constituents detected in ground water.*

Constituent	Concentration range (mg/L)	Frequency of detection (# detections/ # samples)
xylene	0.002 - 34	15/66
benzene	0.004	1/66
toluene	0.001 - 4.2	10/66
ethylbenzene	0.003 - 1.7	13/66
t-1,2-dichloroethene	0.005	1/66
2-methylphenol	0.011 - 0.16	5/25
4-methylphenol	0.003 - 0.004	5/52
2,4-dimethylphenol	0.013 - 0.053	4/25

Note: The data summarized in this table was taken from the results generated as part of past RI activities. For additional information, refer to the Site Investigation Report dated March 1990 and focused Remedial Investigation Report dated February 1994.

To control the migration of contaminants in the ground water within the shallow overburden aquifer, an IRM was implemented. This consisted of operation of a ground water recovery and treatment system which was installed in 1991 and 1992 and began operation in May 1992. The system is composed of six ground water recovery wells screened to capture the saturated thickness of the shallow overburden aquifer and placed to capture the extent of the plume, five piezometers, and a ground water treatment facility. The recovered ground water is treated by filtration and activated carbon adsorption and is subsequently discharged to a local storm sewer in accordance with NYSDEC-established discharge limits. Monitoring requirements and maximum effluent concentrations for the ground water treatment system were established by the NYSDEC. The effluent flow volume is monitored daily and sampled weekly for selected organic compounds and monthly for inorganic constituents. Monitoring results are reported to NYSDEC monthly.

Analyses of off-site monitoring wells during the RI indicate that the ground water recovery system is effectively controlling further off-site migration of ground water contaminants. To enhance the operation of the system, however, new pump controls have been installed within the six recovery wells. These devices have improved the operation of the recovery wells and subsequently increased the effectiveness of the ground water capture in the vicinity of the wells.

1.3. Remedial action objectives

The RAOs for the remedial program have been established by the NYSDEC and are presented in the ROD dated March 1995. The general goals selected for this site are:

- Reduce, control or eliminate the contamination present within the soils on site.

- Eliminate the potential for direct human or animal contact with the contaminated soils on site.
- Prevent, to the extent possible, migration of contaminants in on-site soils to ground water.
- Provide for attainment of Standards, Criteria and Guidelines for ground water quality at the limits of the existing site boundary.
- Minimize to the maximum extent practicable long-term restrictions to future site usage.

Specific goals for the site are presented in Table 1-3 and are based on the New York State Ambient Water Quality Standards and Guidance Values (9/25/90), and the soil clean-up objectives presented in the Technical and Administrative Guidance Memorandum (TAGM) HWR-92-4046 dated November 16, 1992.

Table 1-3. *Remedial action clean-up objectives.*

Parameter	Soil clean-up level (mg/kg, dry weight)	Ground water clean-up level (ug/l)
Volatile organic compounds (VOCs)		
xylene	1.2	5
toluene	1.5	5
ethylbenzene	5.5	5
benzene	0.06	0.7
tetrachloroethene	1.4	5
t-1,2-dichloroethene	0.3	5
total VOCs	10	100
Semi-volatile organic compounds (SVOCs)		
2-methylphenol	0.1	5
2,4-dimethylphenol	–	–
benzoic acid	2.7	50

Table 1-3. *Remedial action clean-up objectives (Continued).*

Parameter	Soil clean-up level (mg/kg, dry weight)	Ground water clean-up level (ug/l)
4-methylphenol	0.9	50
Total SVOCs	500	–

Notes: "-" indicates that objectives are not established

2. Pre-design supplemental soil investigation results

2.1. General

To delineate the extent of soil exhibiting VOCs and SVOCs around the former drum disposal areas, additional soil borings were completed at the site between August 2 and 7, 1995. The soil borings were completed in accordance with the Pre-Design Investigations (PDI) work plan (O'Brien & Gere, 1995) that was approved by the New York State Department of Environmental Conservation (NYSDEC). To estimate the volume of soil to be excavated, soil data generated during the PDI and the Remedial Investigation (O'Brien & Gere, 1994 (was used to evaluate the horizontal and vertical extent of VOCs and SVOCs as presented herein. In addition, the soil data generated during the PDI provided additional analyses to characterize the soils and evaluate treatability and design requirements.

This section presents information regarding the performance of PDIs at the Maestri site including the locations and depths of the soil borings, and the analytical results of soil sampling.

2.2. Soil boring locations and depth

As part of the PDIs, fourteen soil borings, designated as B-12 through B-25, were advanced at the site at locations shown on Figure 4. Headspace readings were measured for each soil sample using a photoionization detector (PID). The borings were advanced until either till was encountered or the head-space PID screening results indicated a reduction of VOC concentrations to near background conditions. Soil boring log sheets are provided in Appendix B.

Initially, nine soil borings (B-12 through B-20) were completed at the locations shown in Figure 4. Based on the VOC field screening results, five additional soil borings (B-21 through B-25) were located as shown on Figure 4 to further delineate the approximate extent of soil containing VOCs and SVOCs.

2.3. Soil characterization

This section presents information pertaining to the soil characteristics exhibited at the Maestri site. Results of the RI and PDI are presented which characterize soil type, contaminant levels, and nutrient concentrations.

2.3.1. Soil type

Consistent with the soil classification results obtained from the RI, results of the PDI show that the subsurface geology at the site, as defined by soil borings, consists of unconsolidated fill, glaciolacustrine deposits, and glacial till. Shale bedrock occurs at depths from 6 ft in the southwestern end of the site to 28 ft in the northeastern portion of the site.

A reddish brown, dense glacial till overlies the shale bedrock. The till consists of a heterogeneous unsorted mixture of clay, silt, sand and gravel. Unconsolidated sediments occurring above the glacial till consist of brown to tan glaciolacustrine sand, gravel, and cobbles. These deposits contain thin interbedded lenses of silty clay.

Fill materials comprised primarily of unstratified sand, silt, clay, and gravel were encountered in several of the soil borings completed in and around the former waste disposal area. The thickness of the fill as defined by split spoon samples collected from the borings ranged from less than 4 feet in boring B-9 to greater than 8 feet in boring B-4. Samples which appeared to be fill were also encountered in the borings completed as monitoring wells MW-7, MW-8, and MW-9 shown on Figure 3. Fill was not encountered at the upgradient background boring B-1 or at B-7, which is located along the south boundary of the disposal area.

Boring depths and encountered fill thicknesses are summarized on Table 5. Depths to first encountered ground water and PID headspace analyses results are included on Table 1. Soil boring logs are presented in Appendix A.

2.3.2. Contamination concentrations

Based on the headspace screening results, up to two samples were selected from each of the borings advanced during the PDIs for laboratory analyses. A total of 21 samples collected during the PDIs were analyzed for VOCs using EPA method 8020, and SVOCs using EPA method 8270.

One sample selected from each boring was from the depth interval of the boring that exhibited the highest level of VOCs based on the headspace tests. However, for the borings that did not exhibit VOCs as indicated by the field screening, a sample was obtained at approximately 2/3 the depth of the boring and submitted for laboratory analyses.

From the borings that contained VOCs, based on the field screening results, a second sample from each boring was also selected for laboratory analyses. The second sample was obtained from the deepest interval suspected to contain VOCs based on field screening results unless levels of VOCs extended to the till. When the field screening indicated that VOCs extended to the till, the second sample selected for laboratory analyses was from the depth at which the presence of VOCs was first detected. The purpose of these samples was to establish the approximate vertical limits of the soils requiring remediation.

The results of the laboratory analyses are summarized in Tables 6 and 7 and the laboratory reports are provided as Appendices C and D. Twenty soil samples were also analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) and four soil samples were analyzed for SVOCs using immunoassay test kits. The test kit result presented in Tables 6 and 7. The immunoassay results, however, do not correlate well enough to the laboratory analytical results to recommend the use of these kits during remedial actions.

3. Soil remediation program

3.1. General

This section presents a description of the conceptual design to remediate soils exhibiting VOCs and SVOCs above the RAOs at the site. A process schematic of the proposed Soils Remediation Program and the mechanical/screening process are presented as Figures 5 and 6, respectively. For convenience, this section discusses the major design components, as listed below:

- limits of proposed excavation
- estimated volumes and contaminant levels
- proposed remedial actions consisting of the following elements:
  - initial sampling and segregation of excavated soils
  - mechanical/screening phase
  - biological/soil vapor extraction phase
  - air emissions controls
  - construction water handling
- verification sampling and analyses
- excavation back fill/site restoration

3.2. Limits of proposed excavation

Based on the data generated during the RI and the PDI, the horizontal and vertical extent of VOCs/SVOCs has been estimated. The preliminary horizontal limits of the excavation are shown on

Figure 7. The vertical limits of the excavation is shown in cross-sections provided as Figures 8, 9 and 10. The vertical limits shown on those figures were established based on the analytical results showing concentrations less than the RAO or upon reaching the layer of glacial till. Similarly, the horizontal limits were also established using the soil borings analytical results. The limits of excavation were estimated to include locations showing concentrations of VOCs/SVOCs which exceeded the clean-up levels and could be excavated, to the extent practicable.

It should be noted that the static water level is 8 to 10 feet below the ground surface and that dewatering of the excavation will be required during soil removal activities.

3.3. Estimated volumes and contaminant levels

Based on the results of the PDI and previous investigations it is estimated that 6,000 to 8,000 cubic yards (cy) of soil measured in place may contain VOCs and/or SVOCs above the RAOs and need to be excavated for treatment. This volume is based on the horizontal and vertical limits presented in Figures 7 through 10.

Based on the results of the sampling and analyses conducted as part of the PDI and previous investigations, VOCs and SVOCs are present within the proposed limits of the excavation at the site at levels presented in the following table.

Table 3-1. *Estimated contaminant levels.*

Constituent	Average concentration[1] mg/kg (ppm)	Maximum concentration mg/kg (ppm)[2]	Number of samples above RAOs[2]
benzoic acid	5.3	99	2
2,4-dimethylphenol	0.3	3.9	2
ethylbenzene	3.4	25	5
2-methylphenol	0.5	4.8	5
tetrachloroethylene (PCE)	16.8	250	2
toluene	22.5	130	14
xylene	2,727.2	8,500	22

(1) Based on an arithmetic average of laboratory data for 24 samples obtained within the proposed excavation limits
(2) Maximum concentration based on sampling discussed in Sections 1 and 2.
(3) Refer to Section 1 and Table 1.3 for additional data regarding specific sample locations and results.

3.4. Proposed remedial actions

The soils remediation program will consist of the components described below and presented in Figure 11.

3.4.1 Initial sampling and segregation of excavated soils

As the soil is excavated, samples will be collected for headspace field screening for VOCs using a PID. Field screening tests will be conducted at a minimum frequency of one sample per 200 c.y. excavated. The purpose of these field screening tests will be to characterize and segregate excavated materials into one of the following categories:

1. Excavated soil that does not appear to contain VOCs above the RAOs (PID reading less than 50 ppm - refer to note 1 below)

2. Excavated soil that does appear to contain VOCs above the RAOs (PID reading equal to or greater than 50 ppm).

Note 1 - The threshold value of 50 ppm presented above is based on the results of the PDI which support a conclusion that soils exhibiting a head space reading of less than 50 ppm likely do not contain VOCs at levels in excess of the RAOs.

Once segregated, the soils that do not appear to contain VOCs above the RAOs will be sampled, as described in Section 3.5, to verify that VOC and SVOC levels are below the RAOs. If the laboratory analytical results verify that VOC and SVOC levels are below the RAOs, the soil will be stockpiled on site for use as clean backfill.

For the soils that do appear to contain VOCs above the RAOs based on the field screening results, a soil sample will be collected and submitted for SVOCs analysis using EPA method 8270. If the results of the analysis indicate the presence of SVOCs above the RAOs, the soil will next be mechanically screened to enhance removal of VOCs and prepare the soil for possible bioremediation for the SVOCs. Additives such as lime or ash, however, will not be added to enhance drying since these materials may inhibit effective bioremediation of this soil, if necessary. If the results of the SVOC analyses, however, indicate that the SVOC concentrations are below levels that necessitate bioremediation lime may be used to dry the soil and further enhance VOC removal. This process is further described in Section 3.4.2.

Since it is expected that the screening process described above may also reduce the concentration of SVOCs exhibited in the soil to levels below the RAOs, soils that initially exhibited SVOCs will be resampled for SVOCs analysis after screening to assess if bioremediation will actually be necessary. Although it is expected that little, if any, soils exhibit SVOCs at levels that will require bioremediation, based on the PDIs and prior data, the bioremediation process is described in Section 3.4.3.

3.4.2. Screening/mechanical processing phase

Based on the capabilities of the equipment to be used and information regarding the soils, it is anticipated that soils will be

mechanically screened at a rate of approximately 400-500 cy per day. The soils will be handled and processed using the following steps:

1. Soils will be excavated and stockpiled in batches of approximately 200 cy. If necessary, hydrated lime will be added to the soil to reduce the moisture content unless the soil requires bioremediation to reduce SVOCs concentrations. The soil will be placed on top of polyethylene sheeting to minimize contact of the excavated and untreated soils with the ground surface. Provisions also will be made to collect and contain free liquids draining from the excavated soils while the material is stockpiled. The untreated soil stockpiles will also be covered with polyethylene sheeting, when not being handled, to minimize exposure to precipitation. Additional measures that will be implemented to minimize contact to the soils during construction will be described within the Storm Water and Erosion Control Plan that will be developed;

2. The stockpiled soils will be screened to remove large, non-processible materials and debris. The large, non-processible material (such as large stones, bricks, timber, concrete, etc.) will be collected and stockpiled separately on-site pending decontamination and used as on-site fill, or disposed of off-site at an appropriate disposal facility. Items that would be decontaminated (by brushing/spray washing to remove adhered soil) include large stones, concrete, brick, and stumps/logs;

3. The screened soils will be loaded into and processed through a hammermill shredder and pugmill, if necessary, where the soils will be pulverized to reduce soil particle size. In order to capture VOCs released during this process, the mechanical processing/screening equipment will be housed in an air-inflated or sprung structure.

   A continuous supply of clean air will be supplied to the inside of the structure and exhausted air will be filtered through vapor phase granular activated carbon (GAC) to maintain a safe breathing environment within the structure and control VOC discharges to the atmosphere.

4. Once processed, the soil will be sampled to evaluate VOC and SVOC concentrations compared to the RAOs that have been established, as described in Section 3.5. In the event that the RAOs have not been achieved, either the soil will be reprocessed

or bioremediated, depending on the concentration of SVOCs exhibited in the soil.

3.4.3. Biological treatment Process

Following mechanical screening, soils exhibiting SVOCs at levels above the RAOs will be treated biologically. The biological treatment system will consist of the following components:

- soil treatment piles
- nutrient and moisture feed and collection systems
- air feed and gas ventilation systems
- water treatment system
- air treatment system

Details of these components are described below.

Soil treatment piles. Figure 12 presents a cross-section of a typical soil treatment pile consisting of top and bottom liners, and water/nutrient/air feed and collection pipes. A typical soil treatment pile will have a maximum length of 280 ft, width of 20 ft and depth of 8 ft. A 40 mil. low density polyethylene sheet will be used to line the bottom and top of the pile. Air, water, and nutrient addition/collection pipes will be made of polyvinyl chloride (PVC).

Nutrient/moisture feed/collection system. The nutrient and moisture requirements of the biological process are summarized below:

- Nutrient requirements:
  - 1.7 g nitrogen/Kg soil
  - 0.3 g phosphorous/Kg soil

  Note: The values presented above are based on theoretical requirements and will be confirmed as part of the design process once the results of the nutrient analyses are available.

- Nutrient blend:

  Nitrogen and phosphorous will be added as ammonium polyphosphate and urea ammonium nitrate as a 25:5:0 (N:P:K) liquid fertilizer. This fertilizer is a custom blend of 10:34:0 ammonium polyphosphate (14 gallons) and 28:0:0 ammonium nitrate (86 gallons).

- Nutrient addition:

  Based on the VOC and SVOC data approximately 500 gal of fertilizer are required per 1000 cu yd of soil (about 1.5 ml fertilizer/Kg soil). Actual quantities will be refined following receipt of nutrient/biological analyses being performed and based on actual field conditions.

- Moisture addition:

  Moisture content of 20% to 30% is required. Approximately 10 ml water/kg soil is required to increase soil moisture by 1% (3,250 gal/1000 cu yd). Liquid fertilizer can be used to satisfy a portion of the water demand.

As shown on Figures 13 and 14, nutrients and moisture will be supplied through a ½" drip tube installed above the soils. The water and nutrients will be conveyed from a nutrient storage tank located on the site and pumped through a 1" pipe and 1/2" drip tubing to the soil pile. These additions will provide necessary components to enhance biological treatment.

A system for collecting excess water fed to the soil will be provided and consists of 4" perforated pipe sloped to a collection sump. Upon collection, the liquid may be amended with nutrients, as necessary, and recirculated through the soil pile.

Air feed system. An air feed system is shown on Figure 14. Air will be supplied passively to the pile through 2" pipe by applying a vacuum at the bottom of the pile. The rate of air extraction will be at least 15 cfm per 1000 cy soil to result in at least three fresh volumes of air per day (based on an air void space of 30%). The air feed system is necessary to provide oxygen to enable respiration of the microorganisms and enhance conditions to be conducive to biological treatment.

Water treatment system. Water collected from the soil pile(s) and not recirculated will be conveyed to the existing on-site water treatment system. Treated water will be sampled and analyzed to evaluate levels of VOCs and SVOCs present and discharged in accordance with the existing State Pollutant Discharge Elimination System (SPDES) permit issued by the NYSDEC.

Air treatment system. Air extracted from the soil pile will be processed by an air treatment system. The air treatment system will consist of coarse particulate filters and vapor phase granular activated carbon (GAC) filters. Figure 15 presents a schematic of the air treatment system.

3.4.4. Air emission control

Air emitted from the biological treatment system will be collected and treated as described above in order to meet Air Permit requirements. Air emissions from this system are expected to be at a rate of at least 15 cfm per 1000 cy of soil placed in a pile for bioremediation. Emissions monitoring will take place as required by the NYSDEC.

3.4.5. Construction water handling

Excavation for the soil remediation will require dewatering. Provisions will be included to dewater the excavation by allowing the water to drain to a temporary sump in the excavation, pump the water to a temporary storage tank, filter to remove suspended solids, and treatment through three, 250-lb. granular activated carbon canisters (connected in series) prior to discharge into the existing, on-site water treatment system. The removal, collection, and treatment system will be designed for a maximum flow of 10 gpm although it is expected that the excavation will only require dewatering at a rate between 2 and 4 gpm.

The Contractor will be required to submit a Storm Water Management and Erosion Control Plan to minimize run-on into the excavation and run-off from the site.

3.5. Verification sampling

Verification sampling will be performed to assess when soils have been treated sufficiently to be used as backfill at the excavation site, and to verify that soils exhibiting VOCs above the RAOs have been excavated to the extent practicable. This section provides sampling plans for both of these verification processes.

3.5.1. Sampling of processed soils

Following soil treatment, the soil piles will be sampled and analyzed for VOCs and SVOCs using EPA Methods 8010/8020 and 8270, respectively. A sample will be collected for every 200 cy to assess the concentration of VOCs/SVOCs within the soil pile. If the concentrations exceed the clean-up objectives for this site, further treatment will be performed. However, upon such time as the soils exhibit VOC and SVOC concentrations below the clean-up levels, the soils may be returned to the excavation as backfill.

3.5.2. Sampling of excavation residues

A 30 ft grid pattern will be established to be used in connection with excavation verification sampling . After excavation to the pre-determined horizontal and vertical depth has occurred, a photoionization detector will be used to assess the need for additional excavation. In addition to PID measurements, a soil sample will be collected at each node of the grid which represents a soil sampling point. The samples will be analyzed for VOCs using EPA Method 8010/8020, and SVOCs using EPA Method 8270. The purpose of this soil sampling and analyses is to document that the soils exhibiting VOCs and/or SVOCs above the RAOs have been removed to the extent practicable.

3.6. Excavation backfill/restoration

Suitable excavated material and processed soils will be used as backfill once confirmation sampling indicates that the RAOs are met. Soils will be placed back in the excavation and suitably compacted.

If additional backfill is required, clean fill (sand) will be used to backfill the excavation to grade.

Also, following completion of excavation and the mechanical/screening process, the top 4 inches of soil will be scraped from the pre/post-treatment stockpile areas in order to collect potentially affected soil which may have been left in this area, or come into contact with contaminated soil. This soil will first be analyzed and, if required, also be processed through the mechanical screening stage and treated along with the excavated soils.

Final restoration of surfaces shall include 4 inches of topsoil, fertilizer, mulch, and seed over areas disturbed during the remedial actions.

4. Ground water recovery and treatment system

4.1. General

Ground water samples collected from the monitoring wells during the investigations indicated the presence of VOCs, predominantly xylene, in the ground water. To minimize the migration of ground water from the site within the shallow overburden aquifer, an IRM was conducted in 1991 and 1992 to install a ground water recovery and treatment system. The system comprises six ground water recovery wells, and a ground water treatment facility.

During soil remediation, ground water will be removed from the excavation, staged on site, and processed through the existing ground water remediation system. This section presents details of the ground water remediation system modifications to be implemented during soil remediation.

4.2. Location of recovery wells

Six recovery wells RW-1 through RW-6 have been installed at the site. Locations of these wells are shown on Figure 3. Ground water recovered from these wells is pumped via a buried conveyance pipes to the on-site treatment building. One or more of the recovery wells are located within the limits of the excavation and therefore will be removed and replaced, if necessary, to meet the objectives of the ground water recovery system.

4.3. Estimated flow rates and concentrations

As part of excavation , a pump will be placed within the excavation to provide additional dewatering, if required. Based on the projected size of the excavation and hydrogeologic characteristics, the anticipated flowrate is less than 5 gpm. The concentrations of VOCs and SVOCs is anticipated to be consistent with the VOC/SVOC concentrations exhibited in the discharge from the recovery wells. The ground water removed from the excavation will be staged on site and treated using granular activated carbon and discharged with the water from the existing ground water recovery and treatment system in accordance with the established discharge limits.

4.4. Treatment system evaluation/modifications

Operation of the ground water treatment system, installed to treat overburden aquifer ground water as part of an IRM, will be evaluated utilizing data obtained both during and after the excavation activities. The purpose of the evaluation is to determine the need, if any, to modify the existing ground water recovery and treatment system. Factors to be considered in the evaluation include the following:

- changes to ground water recovery rates and VOC concentrations; and
- the number of recovery wells that will be removed as part of excavation activities and the need for replacement of the wells.

Prepared by:

Alfred R. Farrell, P.E.
Nancy T. Kellish

Reviewed by:

David S. Towers, P.E.
Pamela Sheehan
Deborah Wright, C.P.G.

Tables

Table 1
Soil Borings VOC Data - 1989

Sample ID Number:	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-7	B-8B	B-9
Sample Depth (Ft):	0-6'	4-6'	2-4'	4-6'	4-6'	2-4'	(DUP.)	4-6'	6-7.3'	4-6'
Methylene Chloride	0.002 J	0.006 U	400 U	0.002 J	0.002 J	0.002 J	380 U	150 U	6.9 U	14 U
Acetone	0.011 U	0.012 J	200 J	0.015 B	0.005 J	0.008 J	750 U	300 U	1.4 U	14 U
2-Butanone	0.011 U	0.012 U	150 J	0.011 U	0.012 U	0.012 U	210 J	300 U	6.8 J	29 U
Tetrachloethene	0.006 U	0.097	400 U	0.006 U	0.006 U	0.006 U	380 U	150 U	6.9 U	154
1,1,2,2-Tetrachloroethane	0.006 U	0.006 U	400 U	0.006 U	0.006 U	0.006 U	380 U	150 U	6.9 U	14 U
Toluene	0.006 U	0.006 U	400 U	0.006 U	0.006 U	0.006 U	380 U	150 U	6.9 U	20
Ethylbenzene	0.006 U	0.006 U	400 U	0.006 U	0.006 U	0.006 U	380 U	150 U	6.9 U	20
Xylene	0.002 J	0.006 U	9,700	0.014	0.006 U	0.004 J	8500	5900	72	3700

NOTES: All analytical values measured in mg/kg.
J - Indicates an estimated value.
B - Found in method blank.
U - Below detection limit.
Analytical quantitation limits are sample specific and may vary.
Quantitation limits for each sample and analyte are presented in laboratory reports.

Table 1
Soil Borings VOC Data - 1989

Sample ID Number:	B-9	B-10	B-10	B-11	B-11	TRIP
Sample Depth (Ft):	6-7'	4-6'	6-7.9'	0-2'	6-9'	BLANK
Methylene Chloride	140 U	3.6 J	1.4 U	0.019 J	0.006 U	0.005 U
Acetone	290 U	29 U	0.9 J	0.15 B	0.067 B	0.01 U
2-Butanone	290 U	29 U	0.99 J	0.031 J	0.012 U	0.01 U
Tetrachloethene	250	140 U	1.4 U	0.029 U	0.006 U	0.005 U
1,1,2,2-Tetrachloroethane	140 U	140 U	1.4 U	0.029 U	0.006 U	0.005 U
Toluene	47 J	1.5 J	1.4 J	0.029 U	0.006 U	0.005 U
Ethylbenzene	140 U	14 U	3.7	0.028 J	0.003 J	0.005 U
Xylene	5400	310	34	0.65	0.11	0.005 U

NOTES: All analytical values measured in mg/kg.
J - Indicates an estimated value.
B - Found in method blank.
U - Below detection limit.
Analytical quantitation limits are sample specific and may vary.
Quantitation limits for each sample and analyte are presented in laboratory reports.

Table 2
Soil Borings SVOC Data - 1989

Sample ID Number:	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-8B	B-9
Sample Depth (Ft):	0-6'	4-6'	2-4'	4-6'	4-6'	2-4'	(DUP.)	4-6'	6-7.3'	4-6'
2-Methylphenol	0.38 U	0.4 U	2.2 U	0.37 U	0.4 U	0.38 U	2.3 J	1.9 J	0.37 U	39 U
4-Methylphenol	0.38 U	0.4 U	2.2 U	0.37 U	0.4 U	0.38 U	20 U	20 U	0.37 U	39 U
2,4-Dimethylphenol	0.38 U	0.4 U	4.1	0.37 U	0.4 U	0.38 U	3.9 J	3.5 J	0.37 U	28 J
Benzoic Acid	1.9 U	2 U	21	1.9 U	2 U	1.9 U	100 U	99	1.9 U	190 U
bis(2-Ethylhexyl)phthalate	0.44 B	0.5 B	2.2 U	0.38 B	0.8 B	0.34 J	20 U	1.1 J	0.32 J	39 U

NOTES: All analytical values measured in mg/kg.
J - Indicates an estimated value.
B - Found in blank.
U - Below detection limit.
Analytical quanitiation limits are sample specific and may vary.
Quantitation limits for each sample and analyte are presented in laboratory reports.

Table 2
Soil Borings SVOC Data - 1989

Sample ID Number:	B-9	B-10	B-10	B-11	B-11	EQUIP
Sample Depth (Ft):	6-7'	4-6'	6-7.9'	0-2'	6-9'	BLANK
2-Methylphenol	4.8 J	38 U	38 U	2.5	0.11 J	0.015 U
4-Methylphenol	38 U	38 U	38 U	0.39 U	0.061 J	0.015 U
2,4-Dimethylphenol	38 U	38 U	38 U	0.39 U	0.39 U	0.015 U
Benzoic Acid	190 U	190 U	190 U	1.9 U	1.9 U	0.077 U
bis(2-Ethylhexyl)phthalate	38 U	38 U	38 U	0.22 J	0.25 J	0.005 JB

NOTES:

All analytical values measured in mg/kg.
J - Indicates an estimated value.
B - Found in blank.
U - Below detection limit.
Analytical quanitiation limits are sample specific and may vary.
Quantitation limits for each sample and analyte are presented in laboratory reports.

Table 3
Soil Borings Inorganic Data - 1989

Sample ID Number:	Typical	Extreme	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-7	B-8B	B-9	B-10	B-10
Sample Depth (Ft):	Range*	Range*	0-6'	4-6'	2-4'	4-6'	4-6'	2-4'	(DUP.)	4-6'	6-7.3'	4-6'	4-6'	6-7.9'
Aluminum	1000-300,000	—	22200	NA	NA	NA	NA	8330	9720	10100	NA	6360	7550	NA
Antimony	0.6-10	—	5.67	NA	NA	NA	NA	5.76 U	6.03 U	5.97 U	NA	5.83 U	5.74 U	NA
Arsenic	1.0-40	0.1-500	2.82	NA	NA	NA	NA	2.73	2.08	2.39	NA	2.37	2.72	NA
Barium	100-3500	10-10000	49.3	NA	NA	NA	NA	39.1	35.3	38.7	NA	20 B	33.9	NA
Beryllium	0.1-40	0.1-100	0.838	NA	NA	NA	NA	0.41 B	0.425 B	0.415 B	NA	0.432 B	0.291 B	NA
Cadmium	0.1-7	0.001-45	0.227	NA	NA	NA	NA	0.231 U	0.241 U	0.239 U	NA	0.233 U	0.23 U	NA
Calcium	100-400,000	—	4740	NA	NA	NA	NA	1520	1400	1820	NA	47100	1460	NA
Chromium	5.0-3000	0.5-10000	31.4	NA	NA	NA	NA	11.5	12.9	14.1	NA	10.6	11	NA
Cobalt	1.0-40	0.01-500	4.98	NA	NA	NA	NA	5.91	19	24.6	NA	9.35	5.68 B	NA
Copper	2.0-100	0.1-14000	9.4	NA	NA	NA	NA	13.7	17.2	17.4	NA	16	19.2	NA
Iron	7000-550,000	—	28800	NA	NA	NA	NA	13800	14700	15300	NA	11100	12900	NA
Lead	2.0-200	0.1-3000	3.88	NA	NA	NA	NA	4.06	3.99	5.26	NA	3.55	4.2	NA
Magnesium	600-6000	—	11500	NA	NA	NA	NA	2080	2940	3040	NA	19900	2530	NA
Manganese	100-4000	1.0-70000	413	NA	NA	NA	NA	462	193	279	NA	416	254	NA
Mercury	0.01-0.08	—	0.113	NA	NA	NA	NA	0.115 U	0.121 U	0.119 U	NA	0.117 U	0.115 U	NA
Nickel	5.0-1000	0.8-6200	30.8	NA	NA	NA	NA	10.1	11.3	13	NA	10.6	11.7	NA
Potassium	400-30,000	—	6800	NA	NA	NA	NA	1870	2900	2820	NA	1810	2030	NA
Selenium	0.1-2	0.01-400	1.13	NA	NA	NA	NA	0.231 U	0.241	0.239	NA	1.17 U	0.23 U	NA
Silver	0.1-5.0	0.1-50	0.233	NA	NA	NA	NA	0.258 B	0.241 U	0.239 U	NA	0.233 U	0.23 U	NA
Sodium	750-7500	400-30000	152	NA	NA	NA	NA	199 B	359 B	201 B	NA	285 B	181 B	NA
Thallium	0.01-12	—	0.567	NA	NA	NA	NA	0.577 U	0.602 U	0.597 U	NA	0.582 U	0.574 U	NA
Vanadium	20-500	1.0-1000	30.3	NA	NA	NA	NA	18.4	19.9	20.8	NA	15.4	16.7	NA
Zinc	10-300	3.0-10000	30.2	NA	NA	NA	NA	21.7	26.2	28.9	NA	19.9	25.1	NA
Cyanide			0.567	NA	NA	NA	NA	0.577 U	0.602 U	0.597 U	NA	0.582 U	0.574 U	NA

NOTES: Analytical inorganic values measured in mg/kg.

NA - Not analyzed.

ND - Not detectable.

U - Below detection limit.

B - Above instrument detection limit but below contract required detection limit.

* - THE SOIL CHEMISTRY OF HAZARDOUS MATERIALS, James Dragun, Ph.D.

Table 3
Soil Borings Inorganic Data - 1989

Sample ID Number: / Sample Depth (Ft):	Typical Range*	Extreme Range*	B-11 0-2'		B-11 6-9'	EQUIP BLANK	
Aluminum	1000-300,000	—	13500		NA	39	B
Antimony	0.6-10	—	5.82	U	NA	50	U
Arsenic	1.0-40	0.1-500	3.26		NA	3	U
Barium	100-3500	10-10000	62.1		NA	10	U
Beryllium	0.1-40	0.1-100	0.504	B	NA	1	U
Cadmium	0.1-7	0.001-45	0.233	U	NA	2	U
Calcium	100-400,000	—	1490		NA	1530	B
Chromium	5.0-3000	0.5-10000	17		NA	5	U
Cobalt	1.0-40	0.01-500	26.1		NA	5	U
Copper	2.0-100	0.1-14000	16.2		NA	18	B
Iron	7000-550,000	—	22500		NA	129	
Lead	2.0-200	0.1-3000	5.46		NA	4.4	
Magnesium	600-6000	—	3180		NA	200	U
Manganese	100-4000	1.0-70000	581		NA	3	B
Mercury	0.01-0.08	—	0.116	U	NA	0.2	U
Nickel	5.0-1000	0.8-6200	17		NA	15	U
Potassium	400-30,000	—	4190		NA	1000	U
Selenium	0.1-2	0.01-400	1.16	U	NA	2	U
Silver	0.1-5.0	0.1-50	0.252	B	NA	2	U
Sodium	750-7500	400-30000	297	B	NA	1920	B
Thallium	0.01-12	—	0.582	U	NA	5	U
Vanadium	20-500	1.0-1000	25.9		NA	5	U
Zinc	10-300	3.0-10000	29.6		NA	13	B
Cyanide			0.582	U	NA	10	U

NOTES: Analytical inorganic values measured in mg/kg.
NA - Not analyzed.
ND - Not detectable.
U - Below detection limit.
B - Above instrument detection limit but below contract required detection limit.
* - THE SOIL CHEMISTRY OF HAZARDOUS MATERIALS, James Dragun, Ph.D.

Table 4
Soil Borings PCB/Pesticide Data - 1989

Sample No.:	B-1	B-2	B-3	B-4	B-5	B-6	B-6 (DUP.)	B-7	B-8B	B-9	B-10	B-11	EQUIP
Depth (FT.):	0-6'	4-6'	2-4'	4-6'	4-8'	2-4'	2-4'	4-6'	6-7.3'	4-6'	4-6'	0-2'	BLANK
alpha-BHC	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
beta-BHC	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
delta-BHC	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
gamma-BHC (Lindane)	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
Heptachlor	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
Aldrin	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
Heptachlor epoxide	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
Endosulfan I	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
Dieldrin	0.013 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	14 U	1.3 U	0.14 U	5E-05 U
4,4-DDE	0.026 U	NA	NA	NA	NA	0.014 U	14 U	14 U	NA	28 U	2.6 U	0.28 U	0.0001 U
Endrin	0.026 U	NA	NA	NA	NA	0.028 U	28 U	28 U	NA	28 U	2.6 U	0.28 U	0.0001 U
Endosulfan II	0.026 U	NA	NA	NA	NA	0.028 U	28 U	28 U	NA	28 U	2.6 U	0.28 U	0.0001 U
4,4-DDD	0.026 U	NA	NA	NA	NA	0.028 U	28 U	28 U	NA	28 U	2.6 U	0.28 U	0.0001 U
Endosulfan Sulfate	0.026 U	NA	NA	NA	NA	0.028 U	28 U	28 U	NA	28 U	2.6 U	0.28 U	0.0001 U
4,4-DDT	0.026 U	NA	NA	NA	NA	0.028 U	28 U	28 U	NA	28 U	2.6 U	0.28 U	0.0001 U
Methoxychlor	0.13 U	NA	NA	NA	NA	0.14 U	140 U	140 U	NA	140 U	13 U	1.4 U	0.0005 U
Endrin Ketone	0.026 U	NA	NA	NA	NA	0.028 U	28 U	28 U	NA	28 U	2.6 U	0.28 U	0.0001 U
alpha-Chlordane	0.13 U	NA	NA	NA	NA	0.14 U	140 U	140 U	NA	140 U	13 U	1.4 U	0.0005 U
gamma-Chlordane	0.13 U	NA	NA	NA	NA	0.14 U	140 U	140 U	NA	140 U	13 U	1.4 U	0.0005 U
Toxaphene	0.26 U	NA	NA	NA	NA	0.28 U	280 U	280 U	NA	280 U	260 U	2.8 U	0.001 U
Arochlor-1016	0.13 U	NA	NA	NA	NA	0.14 U	140 U	140 U	NA	140 U	13 U	1.4 U	0.0005 U
Arochlor-1221	0.13 U	NA	NA	NA	NA	0.14 U	140 U	140 U	NA	140 U	13 U	1.4 U	0.0005 U
Arochlor-1231	0.13 U	NA	NA	NA	NA	0.14 U	140 U	140 U	NA	140 U	13 U	1.4 U	0.0005 U
Arochlor-1242	0.13 U	NA	NA	NA	NA	0.14 U	140 U	140 U	NA	140 U	13 U	1.4 U	0.0005 U
Arochlor-1248	0.13 U	NA	NA	NA	NA	0.14 U	140 U	140 U	NA	140 U	13 U	1.4 U	0.0005 U
Arochlor-1254	0.26 U	NA	NA	NA	NA	0.28 U	280 U	280 U	NA	140 U	260 U	2.8 U	0.001 U
Arochlor-1260	0.26 U	NA	NA	NA	NA	0.28 U	280 U	280 U	NA	280 U	260 U	2.8 U	0.001 U

NOTES: All analytical values measured in mg/kg.
NA - Not analyzed.
U - Below detection limit.

All analytical quantitation limits are sample specific and may vary.
Quantitation limits for each sample and analyte are present in laboratory reports.

TABLE 5
MAESTRI SITE
904 STATE FAIR BLVD.

SOIL BORINGS DATA SUMMARY - 1989

BORINGS	GROUND ELEV. (FT)	TOTAL DEPTH (FT)	DEPTH OF FILL (FT)	DEPTH TO GROUND WATER (FT)	SAMPLED INTERVAL (FT)	HNU FIELD SCREENING (ppm)
B-1	419.4	6.4	0	NOT ENCOUNTERED	0-2'	BG
					2-4'	BG
					4-6'	BG
					6-6.4'	BG
B-2	408.7	6	4	5.8	0-2'	1
					2-4'	3.8
					4-6'	5
B-3	409.7	4	>4	NOT ENCOUNTERED	0-2'	BG
					2-4'	350
B-4	407.8	8	>8	6.25	0-2'	0.4
					2-4'	0.2
					4-6'	0.4
					6-8'	35
B-5	405.8	8	6	6.5	0-2'	BG
					2-4'	BG
					4-6'	BG
					6-8'	4
B-6	409.4	8	4	6.5	0-2'	BG
					2-4'	BG
					4-6'	BG
					6-8'	BG
B-7	408.3	6	0	6	0-2'	300
					2-4'	350
					4-6'	360
B-8	407.5	8	4	7.3	0-2'	0
					2-4'	1.2
					4-6'	5
					6-7.3'	160
B-9	407.7	8	3.3	7	0-2'	1
					2-4'	50
					4-6'	300
					6-7'	280
B-10	409.2	8	4.7	7.9	0-2'	170
					2-4'	280
					4-6'	280
					6-7.9'	280
B-11	409.2	8	4	7	0-2'	260
					2-4'	38
					4-6'	30
					6-7'	140

NOTE: BG - Background.

DRT:cmb/ICI005.20

TABLE 6

VOLATILE ORGANIC COMPOUNDS ANALYSES SUMMARY

Depth Interval	B-12			B-13			B-14			B-15			B-16			B-17			B-18			B-19		
	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit
0-2 ft	0			0			0			0			0			0			0			0		
2-4 ft	0			0			0			0			0			0			0			0		
4-6 ft	280	41	10	0			0			0			0			0			0			0		
6-8 ft	124			0			0	<0.003		0			0			0			0	<0.004	10	0		
8-10 ft	98.3			0			0			0	<0.004	2.5	26.6	0.003	2.5	1.2	<0.003	2.5	10.4			0		
10-12 ft	108			0	<0.004	2.5	0			N/A			16.8			N/A			12.7			0		
12-14 ft	69	N		0			BT			0			11.6	N		35.9	N		273	3.5	20	0		
14-16 ft	174			0						BT			15.4			53.1	0.28	(7)	269	N		0	<0.004	2.5
16-18 ft	161			0									5.9	0.202	2.5	25.6			257			0		
18-20 ft	68.2			0									0			15.6			15.3			0		
20-22 ft	22			BT									BT			0.8			BT			0		
22-24 ft	3.4	0.047	2.5													BT						BT		

Notes:
(1) An asterisk indicates the interval that has been selected for analyses for VOCs by EPA Method 8020 and SVOCs by EPA Method 8270.
(2) N/A - not analyzed due to insufficient quantity of soil.
(3) A blank indicates that the interval was not selected for laboratory analyses.
(4) N - Sample to be analyzed for nutrient adsorption
(5) PID readings in ppmv, laboratory results in mg/kg, dry weight (ppm).
(6) Twenty of the twenty-one intervals selected for laboratory analyses were also tested for combined benzene, toluene, ethylbenzene and xylene using an immunoassay test kit.
(7) Test kit analyses was not completed due to broken vial of reactant chemicals.

a\comptab6

TABLE 6

VOLATILE ORGANIC COMPOUNDS ANALYSES SUMMARY

Depth Interval	B-20			B-21			B-22			B-23			B-24			B-25		
	PID	Lab Result	Test kit	PID	Lab Result	Test Kit	PID	Lab Result	Test kit	PID	Lab Result	Test Kit	PID	Lab Result	Test kit	PID	Lab Result	Test Kit
0-2 ft	0			0			0			0			0			0		
2-4 ft	0			0			0			0			0			0.9		
4-6 ft	0			0			0			0			0			1.1		
6-8 ft	0			0			0			0			0			0.3		
8-10 ft	0			0			0			0			0	<0.003	20	2.5	N	
10-12 ft	0	<0.003	2.5	0			0			0.3	N/A	>35				17.4	<0.004	2.5
12-14 ft	0			0			0	<0.003	2.5	3.3	<0.003	2.5				1.1		
14-16 ft	0			2.4			0			34.5	0.37					0.2		
16-18 ft				8.6	0.212	10	0									0.3		
18-20 ft				1.2			0									0	<0.003	2.5
20-22 ft				0	<0.004	2.5										0		
22-24 ft				0														

Notes:
(1) An asterisk indicates the interval that has been selected for analyses for VOCs by EPA Method 8020 and SVOCs by EPA Method 8270.
(2) N/A - not analyzed due to insufficient quantity of soil.
(3) A blank indicates that the interval was not selected for laboratory analyses.
(4) N - Sample to be analyzed for nutrient adsorption
(5) All values in parts per million (ppm)
(6) Twenty of the twenty-one intervals selected for laboratory analyses were also tested for combined benzene, toluene, ethylbenzene and xylene using an immunoassay test kit.
(7) Test kit analyses was not completed due to broken vial of reactant chemicals.

al\comptab6

TABLE 7

SEMI-VOLATILE ORGANIC COMPOUNDS ANALYSES SUMMARY

Depth Interval	B-12			B-13			B-14			B-15			B-16			B-17			B-18			B-19		
	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit	PID	Lab Result	Test kit
0-2 ft	0			0			0			0			0			0			0			0		
2-4 ft	0			0			0			0			0			0			0			0		
4-6 ft	280	ND		0			0			0			0			0			0			0		
6-8 ft	124			0			0	0.48		0			0			0			0	ND		0		
8-10 ft	98.3			0			0			0	ND		26.6	0.53		1.2	ND		10.4			0		
10-12 ft	106			0	ND		0			N/A			16.8			N/A			12.7			0		
12-14 ft	69			0			BT			0			11.6			35.9			273	ND		0		
14-16 ft	174			0						BT			15.4			53.1	ND		269			0	ND	
16-18 ft	161			0									5.9	ND		25.6			257			0		
18-20 ft	68.2			0									0			15.6			15.3			0		
20-22 ft	22			BT									BT			0.8			BT			0		
22-24 ft	3.4	ND														BT						BT		

Notes:
(1) An asterisk indicates the interval that has been selected for analyses for VOCs by EPA Method 8020 and SVOCs by EPA Method 8270.
(2) N/A - not analyzed due to insufficient recovery of soil.
(3) A blank indicates that the interval was not selected for laboratory analyses.
(4) N - Sample to be analyzed for nutrient adsorption
(5) All values in parts per million (ppm)
(6) ND - Not Detected

neena\svocsum

TABLE 7

SEMI-VOLATILE ORGANIC COMPOUNDS ANALYSES SUMMARY

Depth Interval	B-20			B-21			B-22			B-23			B-24			B-25		
	PID	Lab Result	Test kit	PID	Lab Result	Test Kit	PID	Lab Result	Test kit	PID	Lab Result	Test Kit	PID	Lab Result	Test kit	PID	Lab Result	Test Kit
0-2 ft	0			0			0			0			0			0		
2-4 ft	0			0			0			0			0			0.9		
4-6 ft	0			0			0			0			0			1.1		
6-8 ft	0			0			0			0			0			0.3		
8-10 ft	0			0			0			0			0	ND		2.5		
10-12 ft	0	ND		0			0			0.3						17.4	ND	
12-14 ft	0			0			0	ND		3.3	ND					1.1		
14-16 ft	0			2.4			0			34.5	ND					0.2		
16-18 ft				8.6	ND		0									0.3		
18-20 ft				1.2			0									0	ND	
20-22 ft				0	ND											0		
22-24 ft				0														

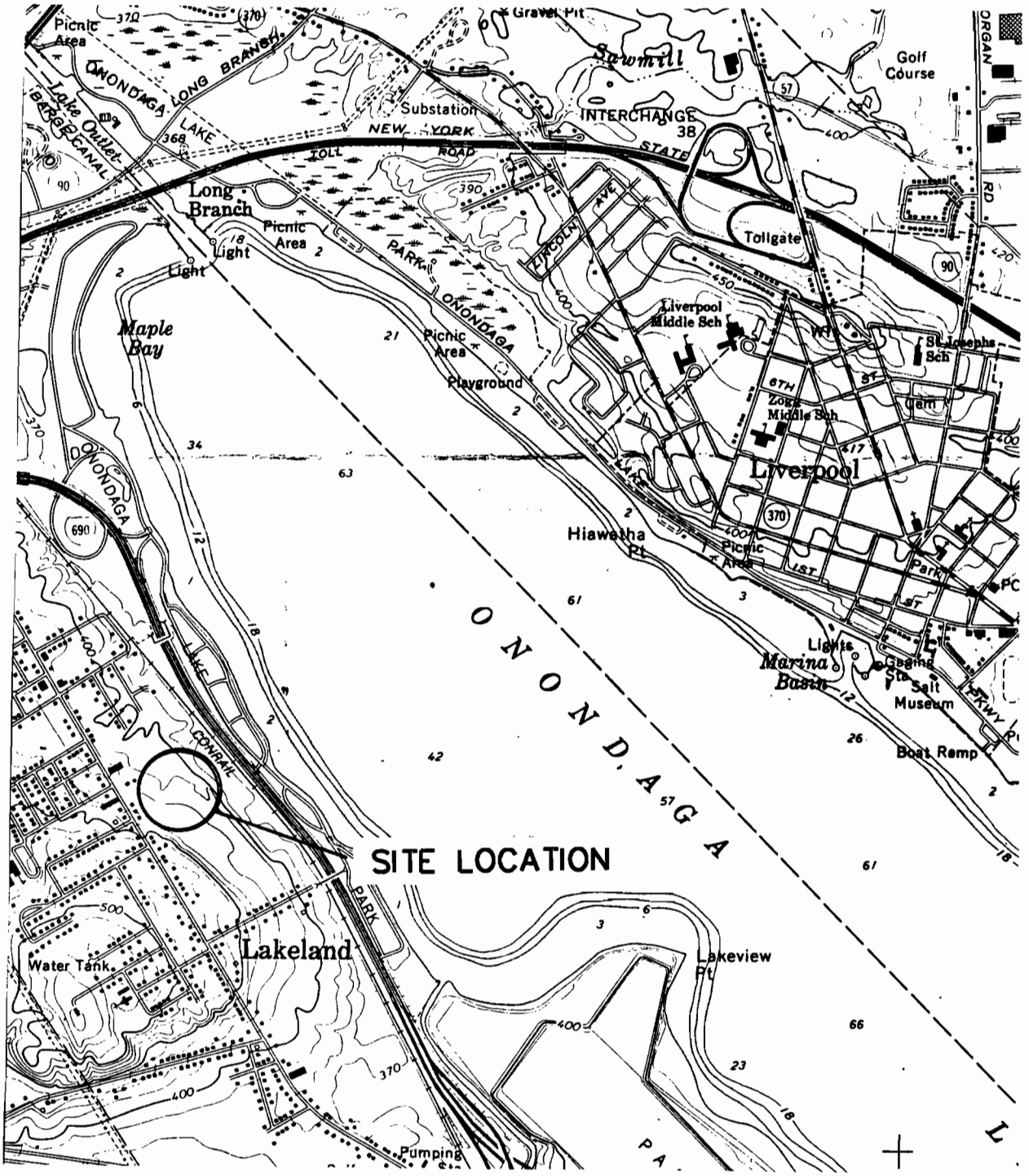
Notes:
(1) An asterisk indicates the interval that has been selected for analyses for VOCs by EPA Method 8020 and SVOCs by EPA Method 8270.
(2) N/A - not analyzed due to insufficient recovery of soil.
(3) A blank indicates that the interval was not selected for laboratory analyses.
(4) N - Sample to be analyzed for nutrient adsorption
(5) All values in parts per million (ppm)
(6) ND - Not Detected

neena/svocsum

Figures

FIGURE 1

MWH H:\DIVISION\71\MAESTRI\04F.DWG SF:1 8/10/95



ADAPTED FROM 7.5 MIN. U.S.G.S. SYRACUSE WEST QUAD MAP, SYRACUSE, NEW YORK

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

SITE LOCATION PLAN

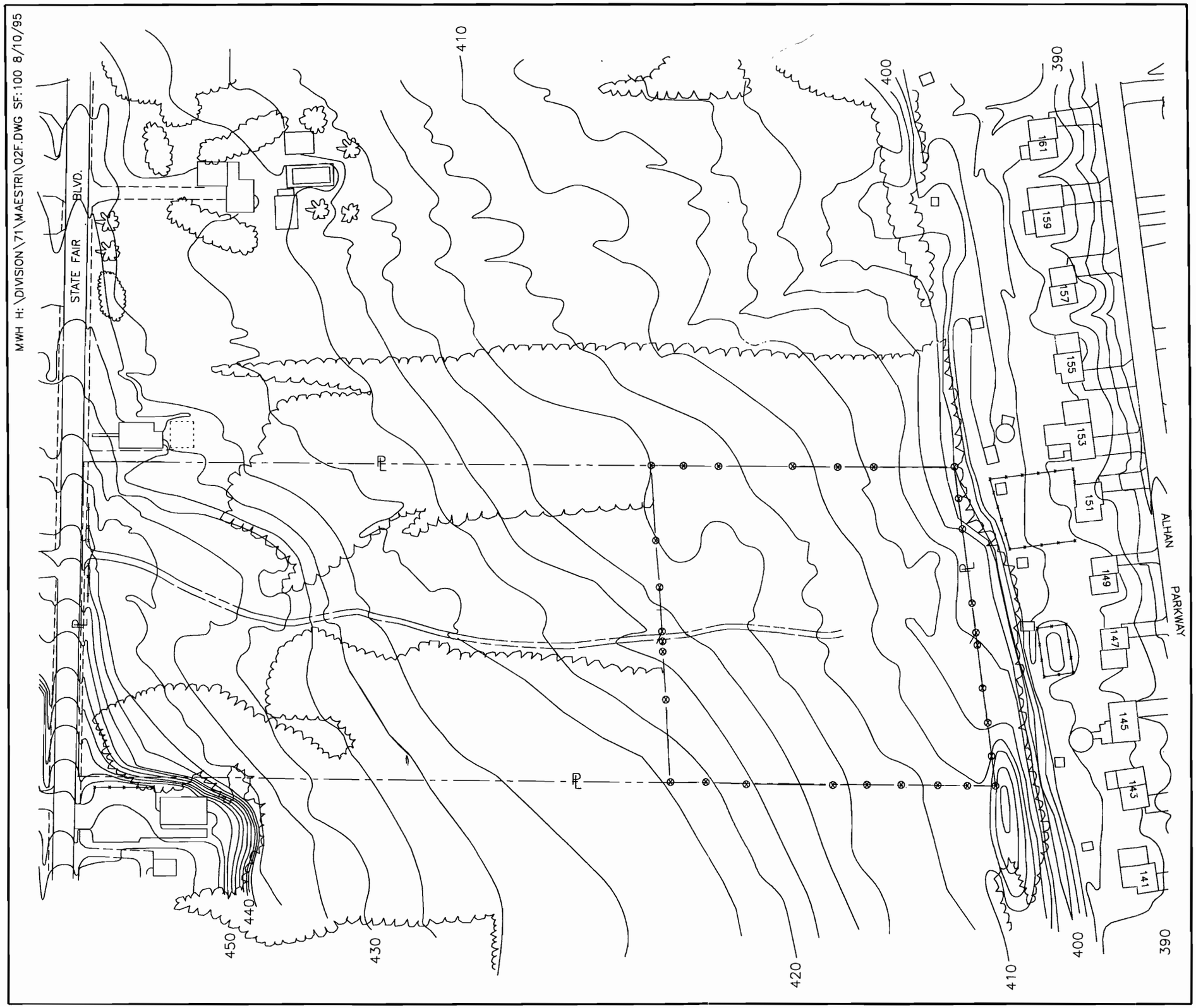
0 2000 4000

APPROX. SCALE IN FEET

FILE NO. 5618.005-04F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 2



LEGEND

- TREE LINE
- ACCESS ROAD
- FENCE
- 8' HIGH SECURITY FENCE
- PL MAESTRI SITE PROPERTY BOUNDARY
- 150 RESIDENCE

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

SITE TOPOGRAPHIC MAP

0 100 200

APPROX. SCALE IN FEET

FILE NO. 5618.005-02F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 3

LEGEND

- TREE LINE
- ACCESS ROAD
- MAESTRI SITE PROPERTY BOUNDARY
- FENCE
- 8' HIGH SECURITY FENCE
- MONITORING WELL
- RECOVERY WELL
- PIEZOMETER
- APPROXIMATE LIMITS OF 1987 EXCAVATION
- APPROXIMATE LIMITS OF 1990 EXCAVATION
- APPROXIMATE LIMITS OF 1993 EXCAVATION

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

SITE MAP (ENLARGED)

0 50 100

APPROX. SCALE IN FEET

FILE NO. 5618.005-03F

O'BRIEN & GERE ENGINEERS INC.

MWH H:\DIVISION\71\MAESTRI\05F.DWG SF:50 9/15/95

FIGURE 4

KEY CONSTITUENTS

	ABBREVIATION
XYLENE	XYL
TOLUENE	TOL
TETRACHLOROETHENE	PCE
ETHYLBENZENE	ETH
BENZOIC ACID	BZA
2-METHYLPHENOL	2MP
2,4-DIMETHYLPHENOL	24D

SOIL CONCENTRATIONS IN PPM (mg/kg, DRY WEIGHT)

B-3	XYL	ACETONE	2-BUTANONE	BZA
2'-4'	9700	200	150	21

B-12	XYL
4'-6'	41

B-8	BZA	2MP
4'-6'	99	1.9

B-8B	24D	XYL
6'-7.3'	3.5	72

B-9	2MP	BZA	XYL	ETH	TOL	PCE
6'-7'	4.8	28	5400	<140	47	250
4'-6'			3700	20	20	154

96	XYL
12/90	427

B-10	XYL
4'-6'	310
6'-7.9'	34

B-11	2MP
0'-2'	2.5
6'-9'	0.11

B-7	2MP	24D	XYL
4'-6'		3.9	5900
DUP	2.3		8500

SB-4	XYL	TOL
8'-10'	710	4.1

2-SWS	XYL	TOL
1.5'-2'	1600	15

2-FLR	XYL	TOL
3'	4900	130

1-FLOOR	XYL	TOL	ETH
A	4700	43	
B	18	34	
C	4800	34	
D	7400	73	16
E	2400	16	

2-SWW	XYL	TOL	ETH
1.5'-2'	1100	56	9.7

2-SWN	XYL	TOL	ETH
1.5'-2'	3900	26	25

2-SWE	XYL
1.5'-2'	82

1-SWW-B	XYL	TOL	ETH
4'	7100	35	11

B-18	XYL
12'-14'	3.5

1-SWN-B	XYL	TOL
4'	1000	6.9

B-2 B-14 B-13 B-3 B-8 B-24 RW-1 RW-3 B-12 B-10 B-25 B-9 B-11 B-4 B-23 RW-4 RW-6 B-15 B-16 B-17 RW-2 B-7 B-6 SB-2 B-5 B-19 B-18 B-21 RW-5 B-20 B-22

GATE

BRUSH & TREES

ALHAN PARKWAY

153 151 147 145 143

LEGEND

- TREE LINE
- ACCESS ROAD
- MAESTRI SITE PROPERTY BOUNDARY
- FENCE
- 8' HIGH SECURITY FENCE
- SOIL BORING (BEFORE AUG. 1995)
- SOIL BORING (AUG. 1995)
- RECOVERY WELL
- APPROXIMATE LIMITS OF 1987 EXCAVATION
- APPROXIMATE LIMITS OF 1990 EXCAVATION
- APPROXIMATE LIMITS OF 1993 EXCAVATION

SAMPLE ID		
B-10	XYL	CONSTITUENT (mg/kg)
4'-6'	340	CONCENTRATION
DEPTH		

B-X SOIL BORING (8/89)
SB-X SOIL BORING (9/93)
SWW SOIL SAMPLE TAKEN @ SIDE WALL WEST
FLR SOIL SAMPLE TAKEN @ EXCAVATION PIT FLOOR

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

SOIL BORINGS LOCATIONS PLAN

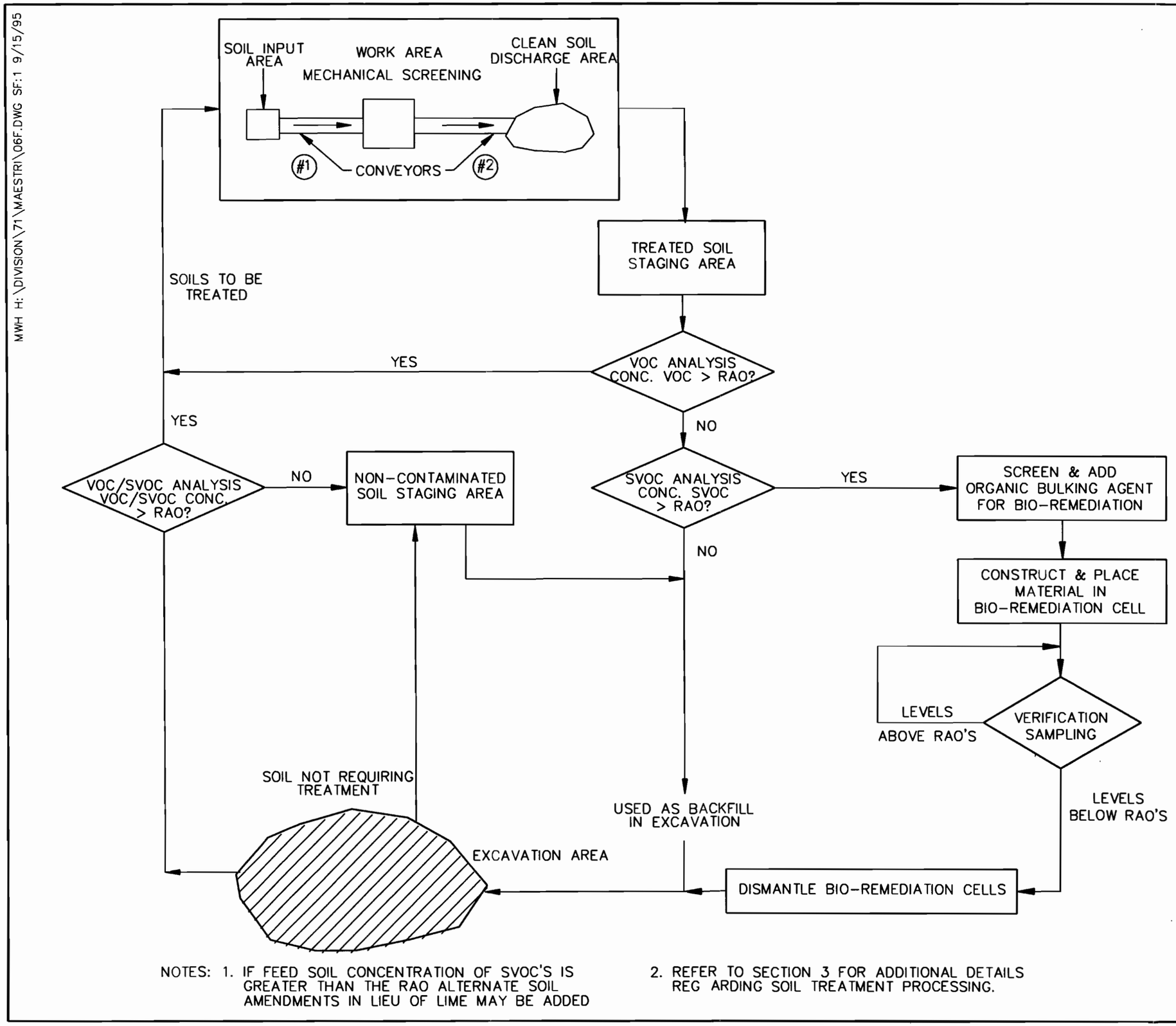
0 50 100

APPROX. SCALE IN FEET

FILE NO. 5618.005-05F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 5



NOTES: 1. IF FEED SOIL CONCENTRATION OF SVOC'S IS GREATER THAN THE RAO ALTERNATE SOIL AMENDMENTS IN LIEU OF LIME MAY BE ADDED

2. REFER TO SECTION 3 FOR ADDITIONAL DETAILS REG ARDING SOIL TREATMENT PROCESSING.

LEGEND

RAO'S	REMEDIAL ACTION OBJECTIVES
VOC'S	VOLATILE ORGANIC COMPOUNDS
SVOC'S	SEMI-VOLATILE ORGANIC COMPOUNDS

REMEDIAL ACTION OBJECTIVES

PARAMETER	SOIL CLEANUP LEVEL (mg/kg, DRY WEIGHT)
XYLENE	1.2
TOLUENE	1.5
ETHYLBENZENE	5.5
BENZENE	0.06
TETRACHLOROETHENE	1.4
t-1,2-DICHLOROETHENE	0.3
TOTAL VOC'S	10
2-METHYLPHENOL	0.1
BENZOIC ACID	2.7
4-METHYLPHENOL	0.9
TOTAL SVOC'S	500

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

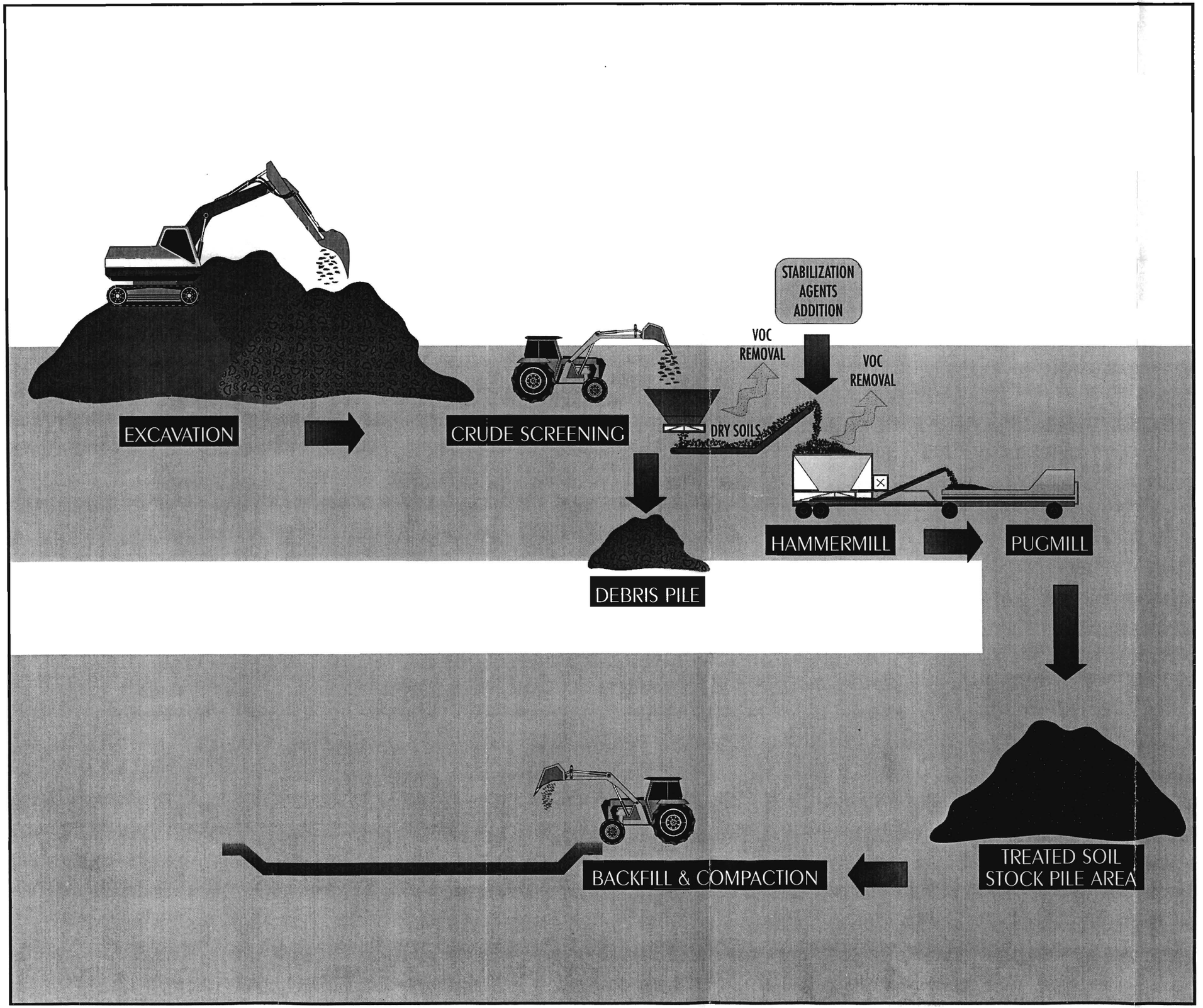
SOIL TREATMENT PROCESSING FLOW SHEET

NOT TO SCALE

FILE NO. 5618.005-06F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 6



Note: The screening process shown here is similar to the screening process to be used in the pretreatment stage of the bioremediation process.

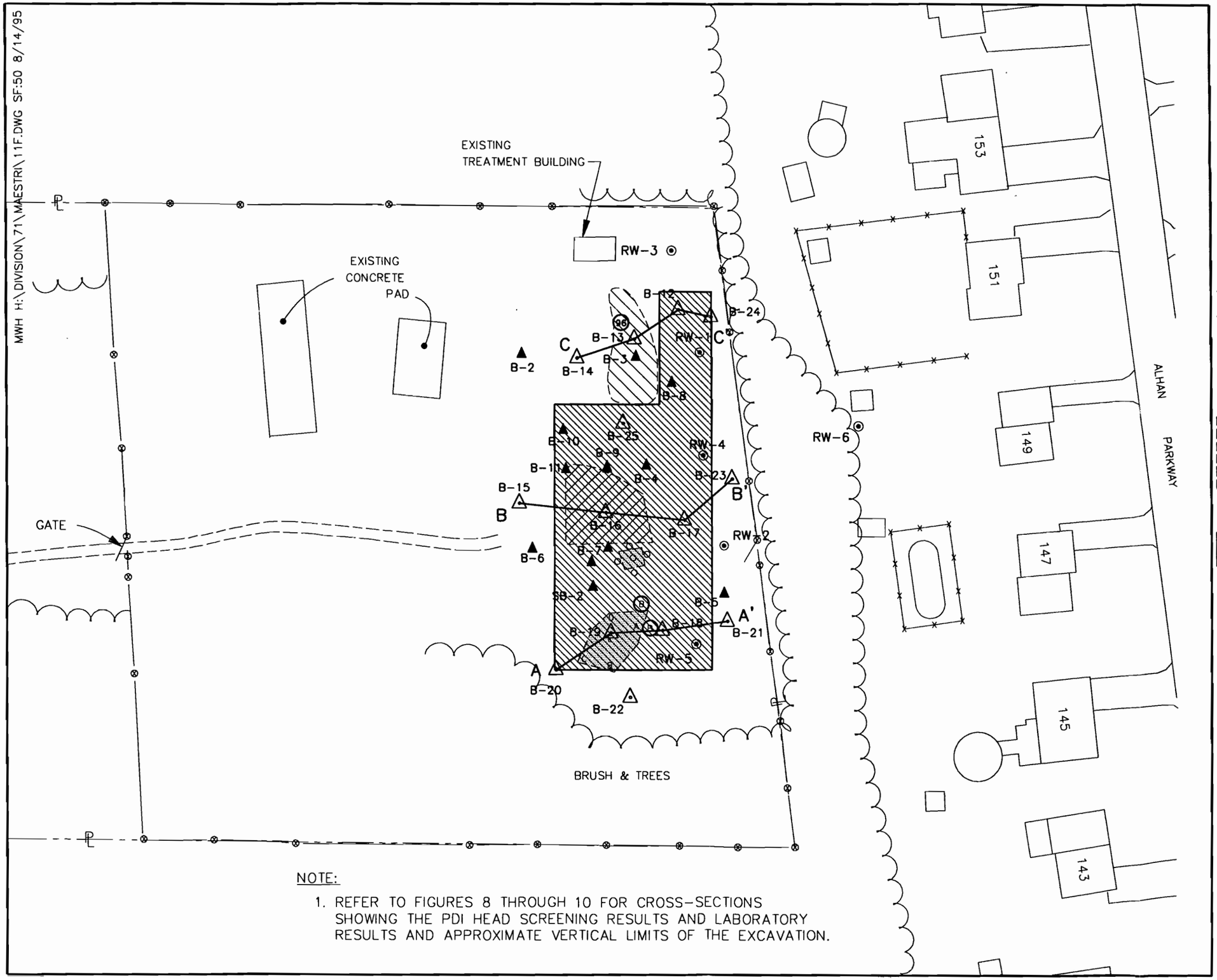
BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

MECHANICAL / SCREENING PROCESS SCHEMATIC

FILE NO. 5618.005-18F

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 7



NOTE:

1. REFER TO FIGURES 8 THROUGH 10 FOR CROSS-SECTIONS SHOWING THE PDI HEAD SCREENING RESULTS AND LABORATORY RESULTS AND APPROXIMATE VERTICAL LIMITS OF THE EXCAVATION.

LEGEND

- TREE LINE
- ACCESS ROAD
- MAESTRI SITE PROPERTY BOUNDARY
- FENCE
- 8' HIGH SECURITY FENCE
- SOIL BORING (BEFORE AUG. 1995)
- SOIL BORING (AUG. 1995)
- RECOVERY WELL
- APPROXIMATE LIMITS OF 1987 EXCAVATION
- APPROXIMATE LIMITS OF 1990 EXCAVATION
- APPROXIMATE LIMITS OF 1993 EXCAVATION
- APPROXIMATE LIMITS OF PROPOSED EXCAVATION
- A A' CROSS SECTION DESIGNATION

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

PROPOSED LIMITS OF EXCAVATION

0 50 100

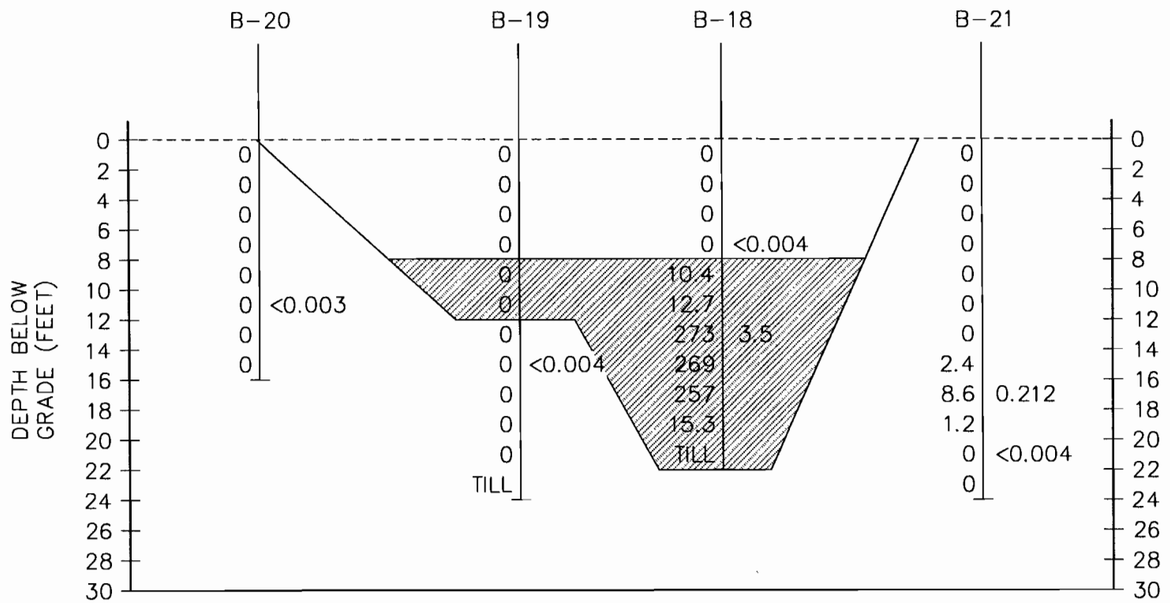
APPROX. SCALE IN FEET

FILE NO. 5618.005-11F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 8

MWH H:\DIVISION\71\MAESTRI\12F.DWG SF:20 9/7/95



CROSS SECTION A-A'

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

LEGEND

0 | HEAD-SPACE SCREENING RESULTS (PPMV)

| 3.5 TOTAL VOC'S CONCENTRATION (MG/KG), DRY WEIGHT

VOC - VOLATILE ORGANIC COMPOUNDS (EPA METHOD 8020)

SOILS THAT MAY EXHIBIT VOC'S OR SVOC'S IN EXCESS OF RAO'S

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

CROSS SECTION A-A'

HORIZ. SCALE IN FEET
0 20 40

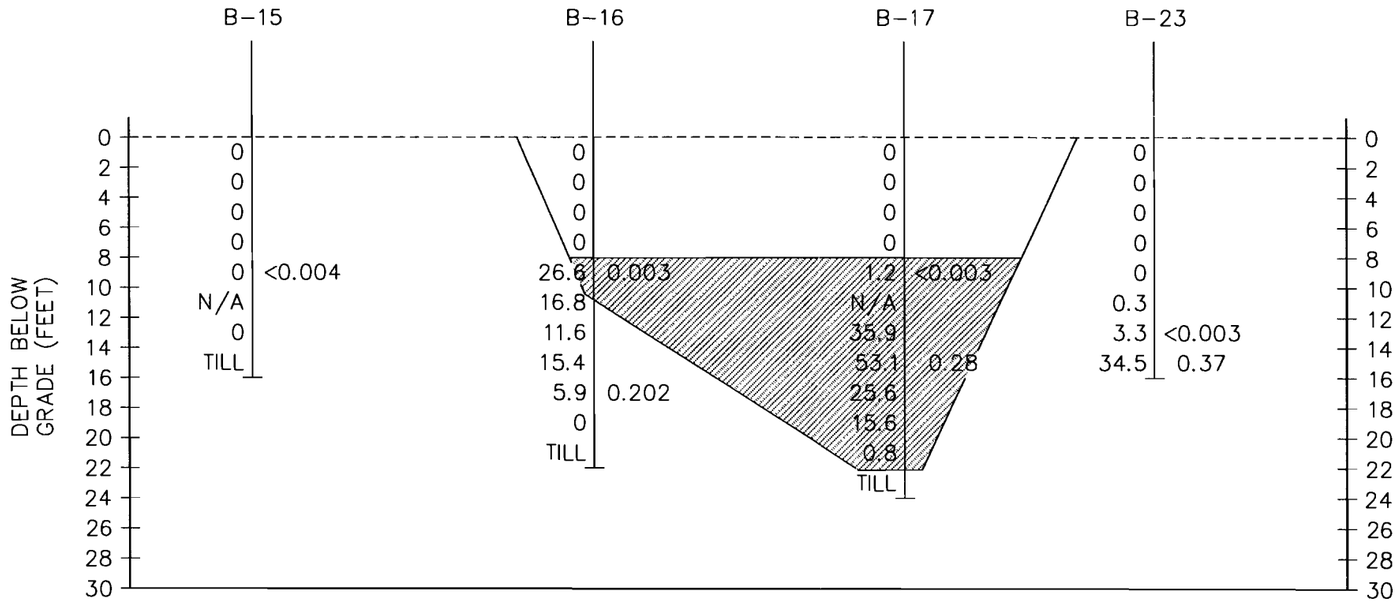
VERT. SCALE IN FEET
0 10 20

FILE NO. 5618.005-12F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 9

MWH H:\DIVISION\71\MAESTRI\13F.DWG SF:20 9/7/95



CROSS SECTION B-B'

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

LEGEND

0 | HEAD-SPACE SCREENING RESULTS (PPMV)

| 0.28 TOTAL VOC'S CONCENTRATION (MG/KG), DRY WEIGHT

VOC – VOLATILE ORGANIC COMPOUNDS (EPA METHOD 8020)

SOILS THAT MAY EXHIBIT VOC'S OR SVOC'S IN EXCESS OF RAO'S

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

CROSS SECTION B-B'

HORIZ. SCALE IN FEET
0 20 40

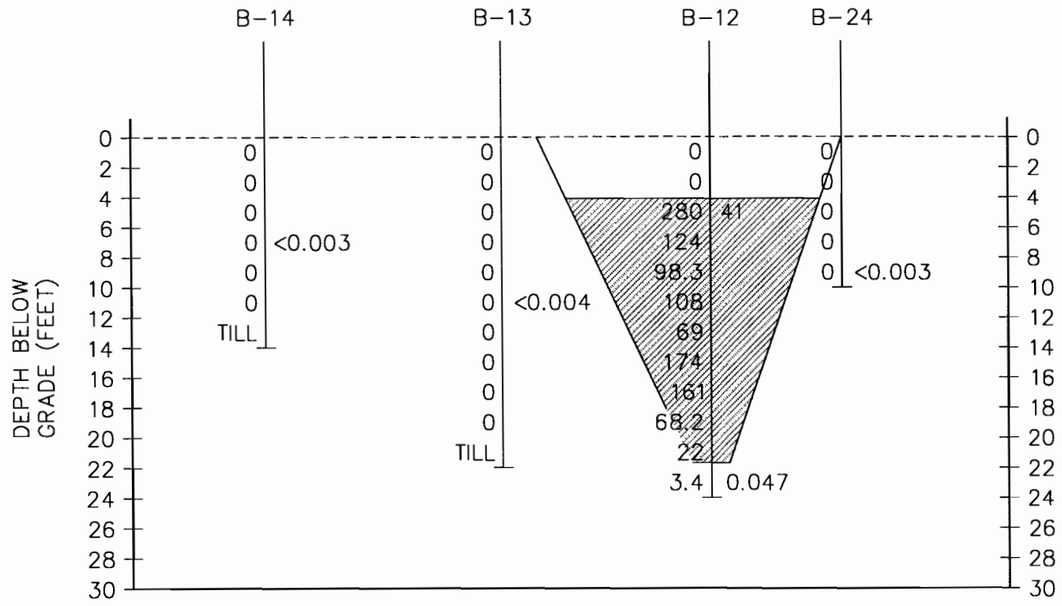
VERT. SCALE IN FEET
0 10 20

FILE NO. 5618.005-13F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 10

MWH H:\DIVISION\71\MAESTRI\14F.DWG SF:20 9/7/95



CROSS SECTION C-C'

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

LEGEND

0 | HEAD-SPACE SCREENING RESULTS (PPMV)

| 41 TOTAL VOC'S CONCENTRATION (MG/KG), DRY WEIGHT

VOC – VOLATILE ORGANIC COMPOUNDS (EPA METHOD 8020)

SOILS THAT MAY EXHIBIT VOC'S OR SVOC'S IN EXCESS OF RAO'S

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

CROSS SECTION C-C'

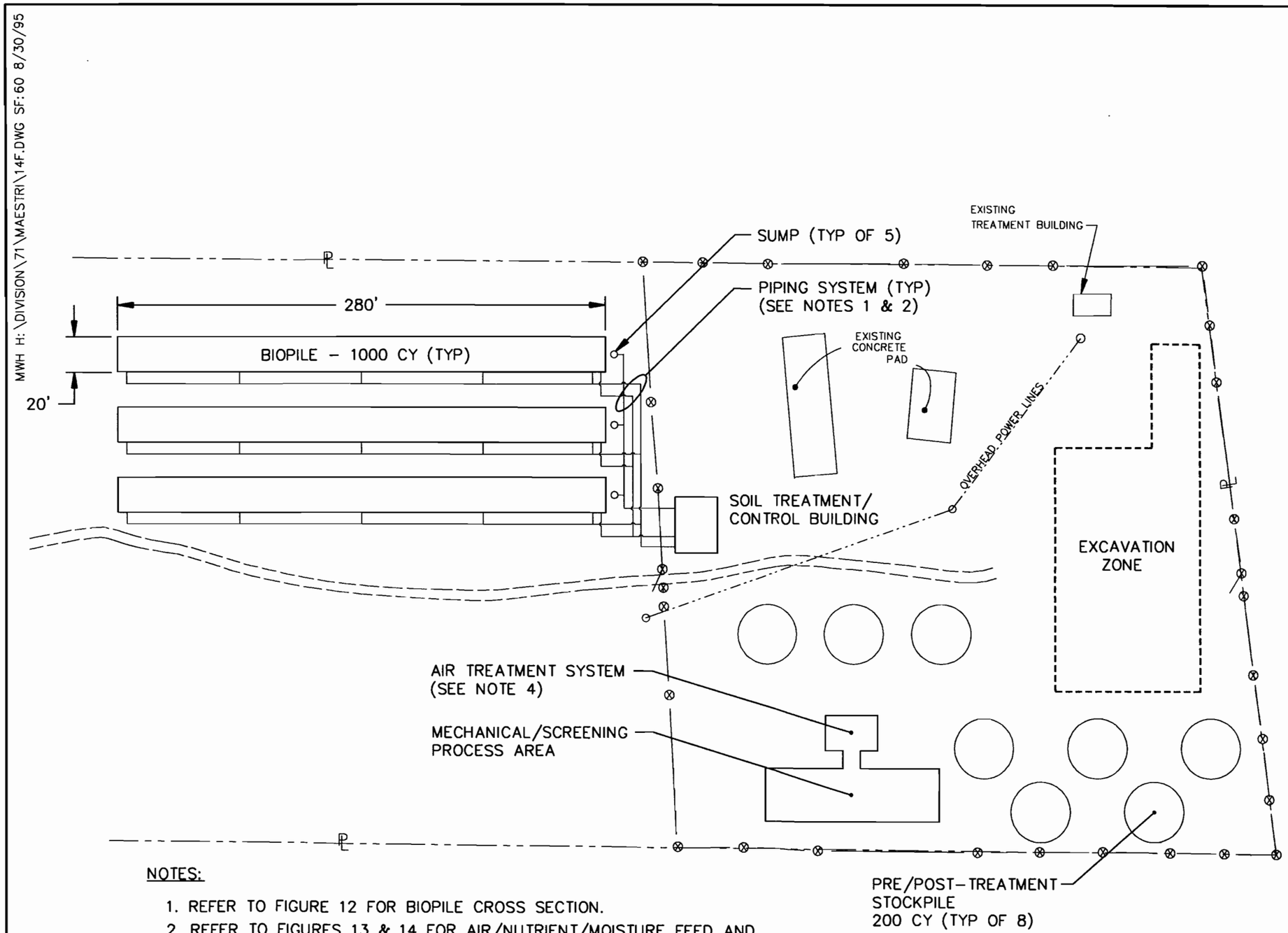
HORIZ. SCALE IN FEET
0 20 40

VERT. SCALE IN FEET
0 10 20

FILE NO. 5618.005-14F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 11



NOTES:

1. REFER TO FIGURE 12 FOR BIOPILE CROSS SECTION.
2. REFER TO FIGURES 13 & 14 FOR AIR/NUTRIENT/MOISTURE FEED AND COLLECTION SYSTEMS.
3. REFER TO FIGURE 15 FOR DETAILS OF SOIL TREATMENT/CONTROL BUILDING.
4. DETAILS OF SPRUNG STRUCTURE OR AIR INFLATED STRUCTURE OVER MECHANICAL SCREENING EQUIPMENT WILL BE DETERMINED AS PART OF FINAL DESIGN.
5. NUMBER OF BIOPILES, IF REQUIRED, IS DEPENDENT UPON QUANTITY OF SOILS EXHIBITING SVOCS.

LEGEND

- ACCESS ROAD
- MAESTRI SITE PROPERTY BOUNDARY
- 8' HIGH SECURITY FENCE

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

PROPOSED SOIL TREATMENT PLAN

0 60 120

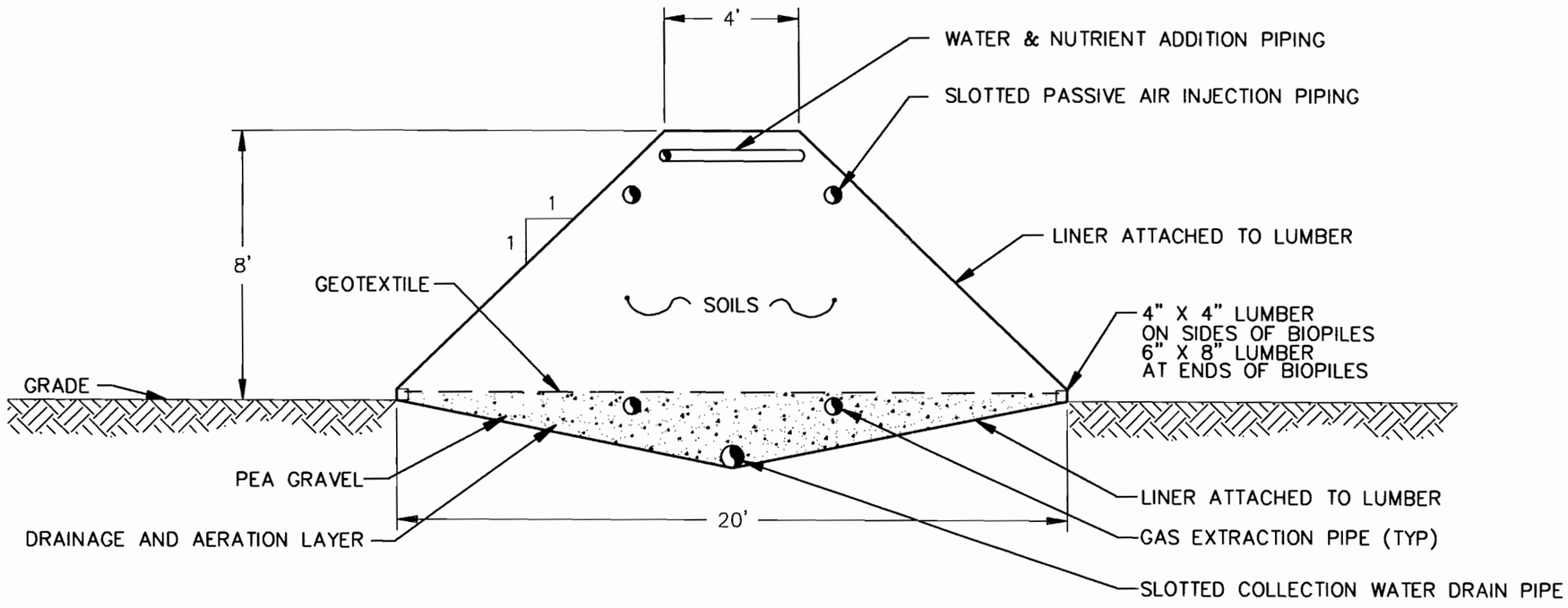
SCALE IN FEET

FILE NO. 5618.005-10F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 12

MWH H:\DIVISION\71\MAESTRI\16F.DWG SF:4 8/30/95



SECTION 1 / FIG.13/14

NOT TO SCALE

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

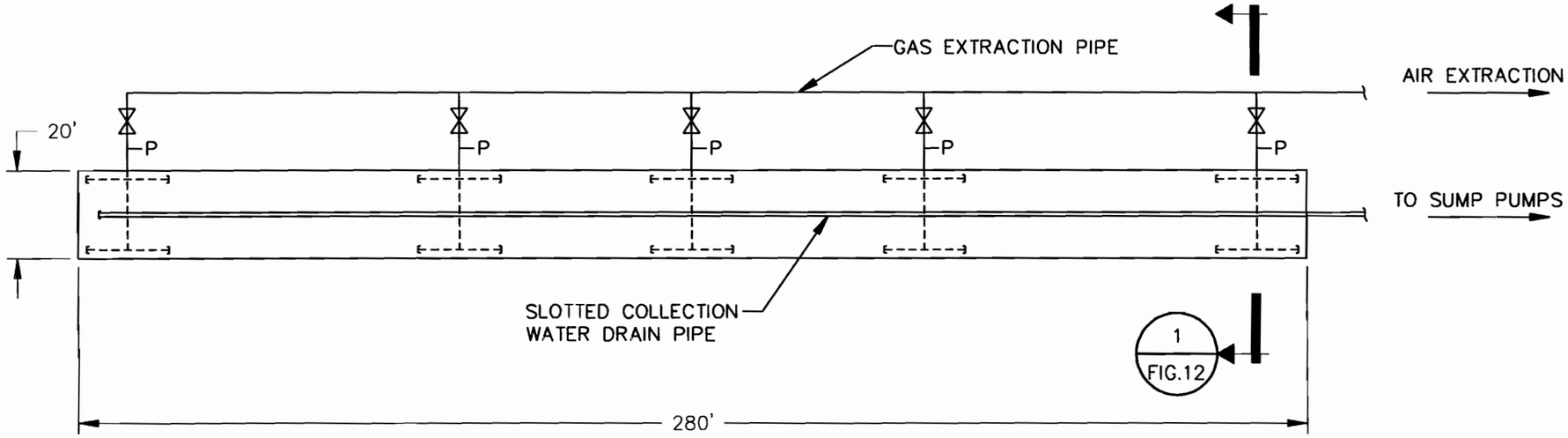
SOIL TREATMENT
PILE CROSS-SECTION

NOT TO SCALE

FILE NO. 5618.005-16F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 13



LEGEND

⋈ CONTROL VALVE

—P PRESSURE GAUGE

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

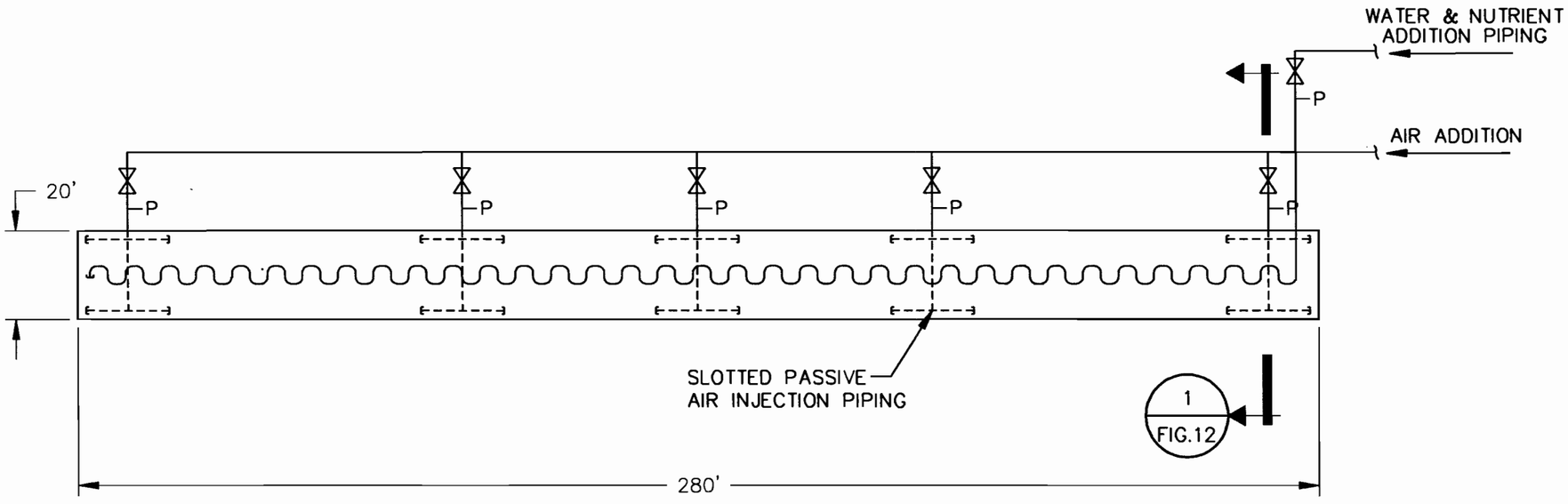
BIOREMEDIATION CELL PLAN (BELOW SOILS)

SCALE AS NOTED

FILE NO. 5618.005–17F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 14



LEGEND

⋈ CONTROL VALVE

—P PRESSURE GAUGE

BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

BIOREMEDIATION CELL PLAN (ABOVE SOILS)

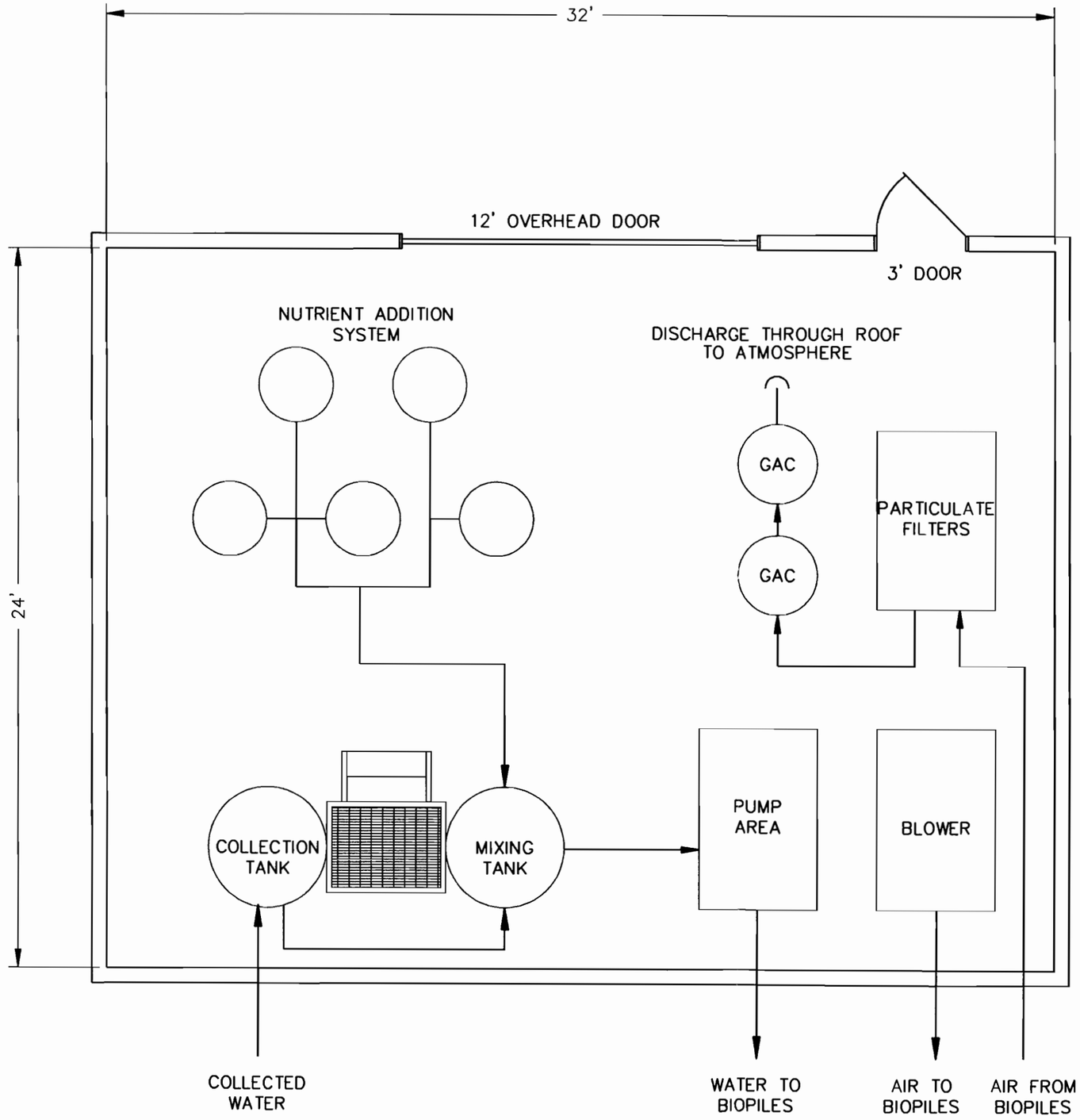
SCALE AS NOTED

FILE NO. 5618.005–19F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 15

MWH H:\DIVISION\71\MAESTRI\15F.DWG SF:48 9/15/95



BASIS OF DESIGN REPORT
MAESTRI SITE
GEDDES, NEW YORK

SOIL TREATMENT/
CONTROL BUILDING

1/4"=1'-0" 2 0 2 4

SCALE IN FEET

FILE NO. 5618.005-15F

O'BRIEN & GERE ENGINEERS INC.

Appendices

APPENDIX A

SOIL BORING LOGS - 1989

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. B-1
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, N.Y.
Client: Stauffer Management Company

SAMPLER
Type: 2" Split Spoon
Hammer: 140 lbs. Fall: 30 inches

Ground Water Depth Date
Depth Date
File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent center line stake 4+50
Ground Elevation: 419.4'
Dates: Started: 8/2/89 Ended: 8/2/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
0						Reddish brown, dry and damp, very stiff clayey SILT, little fine to coarse sand, little fine/medium gravel, olive green mottling apparent.					0	
	1	0-2'	3/9/15/12	2'/2'	24							
	2	2-4'	7/8/9/13	2'/1.3'	17	- Same as above, trace fine/medium sand, no fine/medium gravel.					0	
5	3	4-6'	5/15/-	2'/0.9'	41	- Same as above, hard, lenticular olive green and brownish red mottling, grades to very weathered bedrock at 6 ft.					0	
			26/45									
	4	6-6.4'	50/.4	0.4/0.4'	50+	Interbedded, olive green and brownish red dry weathered SHALE.	6.0'				0	
						Bottom of boring at 6.4 ft; boring terminated at top of bedrock.	6.4'					
10												

B1.KJK
8/8/89

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. B-2 Sheet 1 of 1
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth 5.8' Date 8/2/89 Depth Date File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent left 40, 8 + 20 stake
Ground Elevation: 408.7'
Dates: Started: 8/2/89 Ended: 8/2/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
0						Reddish brown, dry, medium dense, fine/medium SAND, some silt, trace coarse sand, trace fine/medium gravel, trace roots.						
	1	0-2'	3/8/5/4	2'/1.5'	13						1.8	
							2.0'					
						Reddish brown, damp, very stiff, clayey SILT, little medium/coarse sand, trace buff and olive green fine/medium gravel.						
	2	2-4'	5/8/11/15	2'/2'	19						3.8	
							4.0'					
						Medium brown, very moist, dense, fine/medium SAND, some silt. Saturated at 5.8'.						
5	3	4-6'	18/17/-	2'/2'	30						5.0	
			13/25				6.0'					
						Bottom of boring at 6 ft.						
10												

B2.KJK
8/8/89

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. B-3 Sheet 1 of 1
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth Date Depth Date File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent left 40; 8 + 80 stake
Ground Elevation: 409.7'
Dates: Started: 8/2/89 Ended: 8/2/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
0						Reddish brown and orange, damp, medium dense, fine/medium GRAVEL and fine to coarse SAND, some silt, trace clay, trace roots.						
	1	0-2'	3/5/6/7	2'/1.7'	11						0	
							3.0'					
	2	2-4'	3/6/6/5	2'/1.2'	12	Buff, damp, stiff, clayey SILT.					350	
							4.0'					
						Bottom of boring at 4 ft. (Non-aqueous phase liquid encountered)						
5												

B3.KJ
8/8/8

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. B-4
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, N.Y.
Client: Stauffer Management Company

SAMPLER
Type: 3" Split Spoon
Hammer: 140 lbs. Fall: 30 inches

Ground Water Depth 6.25' Date 8/2/89
Depth Date
File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent right 20; 8 + 80 stake
Ground Elevation: 407.8'
Dates: Started: 8/2/89 Ended: 8/2/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
0						Reddish brown, dry, medium dense, fine to coarse SAND, some fine/medium gravel, little silt, trace roots.						
	1	0-2'	3/7/19/14	2'/2'	26						0.4	
							2.3'					
	2	2-4'	15/20/-	2'/2'	52	Reddish brown, damp, hard, clayey SILT, little coarse sand, little fine to coarse gravel, trace cobbles.					0.2	
			32/50/.1									
5	3	4-6'	12/13/-	2'/2'	26	- Same as above, very stiff.					0.4	
			13/13				6.25'					
	4	6-8'	8/9/14/15	2'/2'	23	Gray, saturated, medium dense, fine/medium SAND, trace coarse sand, trace fine gravel					35	
							8.0'					
						Bottom of boring at 8 ft.						
10												

B4.KJK
8/8/89

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. B-5 Sheet 1 of 1
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth 6.5' Date 8/2/89 Depth Date File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent (right 90) 9 + 20 stake
Ground Elevation: 405.8'
Dates: Started: 8/2/89 Ended: 8/2/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
0						Reddish brown, dry and damp, very stiff clayey SILT, some fine/medium sand, trace fine/medium gravel, trace coarse sand.					0	
	1	0-2'	3/9/7/6	2'/2'	16							
	2	2-4'	6/9/8/9	2'/2'	17	- As above, very moist, little fine/medium gravel, little fine to coarse sand.					0	
5	3	4-6'	3/3/5/5	2'/2'	8	- As above, stiff, trace fine/medium gravel.					0	
							6.0'					
	4	6-8'	6/8/28/-	2'/2'	36	Brown and buff, hard, very moist, clayey SILT, some fine/medium gravel, little fine/medium sand, trace coarse gravel. Saturated at 6.5'.					4	
			50/.4									
							8.0'					
						Bottom of boring at 8 ft.						
10												

BS.KJK
8/8/89

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. B-6 Sheet 1 of 1
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth 6.5' Date 8/3/89 Depth Date File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent right 60; 8 + 20 stake
Ground Elevation: 409.4'
Dates: Started: 8/3/89 Ended: 8/3/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remarks
0						Black, damp, stiff organic SILT, little roots.						
	1	0-2'	3/6/7/8	2'/2'	13		0.4'				0	
						Tan, damp, medium dense, fine/medium SAND, little silt, occasional lenses of decayed black organic matter.						
	2	2-4'	7/6/6/8	2'/2'	12		3.5'				0	
						Tan, damp, medium dense, medium/coarse SAND little fine sand, little silt, trace fine/ medium gravel.						
5	3	4-6'	8/8/11/10	2'/0.4'	19		4.0'				0	
						Tan and brown, moist, very stiff, clayey SILT, trace fine/medium sand.						
	4	6-8'	11/15/-	2'/1.8'	32	- Same as above, hard, some fine to coarse sand, trace fine/medium gravel, saturated at 6.5'.					0	
			17/19				8.0'					
						Bottom of boring at 8 ft.						
10												

B6.KJ
8/8/8

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. B-7
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, N.Y.
Client: Stauffer Management Company

SAMPLER
Type: 3" Split Spoon
Hammer: 140 lbs. Fall: 30 inches

Ground Water Depth 6' Date 8/3/89
Depth Date
File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent right 60, 8 + 60 stake
Ground Elevation: 408.3'
Dates: Started: 8/3/89 Ended: 8/3/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
0												
	1	0-2'	2/2/2/2	2'/2'	4						300	
						Tan, moist, loose stratified, fine/medium SAND, little silt, occassional interbeds of silty clay 2-6'.						
	2	2-4'	2/4/4/5	2'/2'	8						350	
5	3	4-6'	3/4/6/5	2'/2'	10						360	
							6.0'					
						Bottom of boring at 6 ft.						
10												

B7.KJK
8/9/89

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. B-8A
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, N.Y.
Client: Stauffer Management Company

SAMPLER
Type: 3" Split Spoon
Hammer: 140 lbs. Fall: 30 inches

Ground Water Depth Date
Depth Date
File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent left 20, 8 + 80 stake
Ground Elevation: 406.7'
Dates: Started: 8/3/89 Ended: 8/3/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
0						Tan and brown, damp, loose, fine to coarse SAND and fine/medium GRAVEL, little silt, trace clay.						
	1	0-2'	3/4/4/3	2'/2'	8						0.2	
						Spoon bouncing at 3' below grade.						
	2	2-4'	No recovery				3.0'					
						Bottom of boring at 3 ft.; boring terminated, obstruction encountered.						
5												
10												

B8A.KJK
8/9/89

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. B-8B
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, N.Y.
Client: Stauffer Management Company

SAMPLER
Type: 3" Split Spoon
Hammer: 140 lbs. Fall: 30 inches

Ground Water Depth 7.3' Date 8/3/89
Depth Date
File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Between L20 9+100 and L30 9+100 stakes
Ground Elevation: 407.5'
Dates: Started: 8/3/89 Ended: 8/3/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remarks*
0						Brown, reddish brown, and tan, damp, medium dense, fine to coarse SAND and fine to coarse GRAVEL, little silt, trace clay.						
	1	0-2'	3/5/8/14	2'/1.3'	13						1	
	2	2-4'	7/8/11/14	2'/2'	19						1.2	
							4.0'					
						Reddish brown and tan, damp, very stiff clayey SILT, some embedded fine to coarse gravel, trace embedded coarse sand.						
5	3	4-6'	7/11/-	2'/2'	23						5	
			12/16									
	4	6-8'	18/15/-	2'/2'	33	- As above, hard, saturated at 7.3'.					160	
			18/14				8.0'					
						Bottom of boring at 8 ft.						
10												

B8B.KJ1
8/9/89

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. B-9
Sheet 1 of 1

Project Location: Maestri Site Investigation, Geddes, N.Y.
Client: Stauffer Management Company

SAMPLER
Type: 3" Split Spoon
Hammer: 140 lbs. Fall: 30 inches

Ground Water Depth 7.0' Date 8/4/89
Depth Date
File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent right 20, 8 + 60 stake
Ground Elevation: 407.7'
Dates: Started: 8/4/89 Ended: 8/4/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remarks
0						Reddish brown and brown, moist, loose, silty fine/medium SAND, trace roots.						
	1	0-2'	1/2/2/3	2'/1.4'	4						1	
							3.3'					
	2	2-4'	9/3/4/7	2'/2'	7	Gray, damp, medium dense, fine/medium SAND, little silt, occasional interbedded silty clay 4-8'.					50	
5	3	4-6'	3/6/9/9	2'/2'	15						300	
	4	6-8'	4/8/13/19	2'/2'	21	Saturated at 7 ft.					280	
						Bottom of boring at 8 ft.	8.0'					
10												

89.KJ
8/9/E

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. B-10 Sheet 1 of 1
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth 7.9' Date 8/4/89 Depth Date File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent center line, 8 + 40 stake
Ground Elevation: 409.2'
Dates: Started: 8/4/89 Ended: 8/4/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
0						Light brown, damp, stiff, SILT, some fine/ medium sand.						
	1	0-2'	4/4/7/7	2'/2'	11		0.5'				170	
						Reddish brown, damp medium dense, fine/medium SAND and SILT, little fine/medium gravel.						
	2	2-4'	2/6/8/8	2'/1.1'	14		2.0'				280	
						Reddish brown and tan, damp, medium dense, fine/medium sand, some silt.						
5	3	4-6'	2/4/6/7	2'/2'	10		4.7'				280	
						Tan, moist, medium dense, fine/medium SAND, little silt, occasional interbedded silty clay 4.7-8'.						
	4	6-8'	5/4/7/11	2'/2'	11	Saturated at 7.9 ft.					280	
							8.0'					
						Bottom of boring at 8 ft.						
10												

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. B-11
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, N.Y.
Client: Stauffer Management Company

SAMPLER
Type: 3" Split Spoon
Hammer: 140 lbs. Fall: 30 inches

Ground Water Depth 7' Date 8/4/89
Depth Date
File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: Adjacent right 20, 8 + 40 stake
Ground Elevation: 409.2'
Dates: Started: 8/4/89 Ended: 8/4/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
0						Reddish brown, damp, medium stiff, clayey SILT, little coarse sand, little fine/medium gravel.						
	1	0-2'	1/1/3/3	2'/2'	4						260	
							2.3'					
	2	2-4'	5/4/5/7	2'/2'	3	Tan and light brown, moist, stiff, fine/medium SAND, some silt.					38	
							4.0'					
5	3	4-6'	4/6/5/6	2'/1.4'	11	Reddish brown and light brown, moist, medium dense SAND, little silt, occasional interbedded silty clay 4-8'.					30	
	4	6-8'	5/4/5/11	2'/1.1'	9	Saturated at 7 ft., loose.					140	
							8.0'					
10						Bottom of boring at 8 ft.						

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. MW-7 Sheet 1 of 2
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth ~7' Date 7/25/89 Depth Date File No.: 3213.004.576
Boring Co.: Parratt-Wolff, Inc. Foreman: Kevin White OBG Geologist: Dennis Theoret	Boring Location: NE of main disposal area Ground Elevation: 406.9 ft. Dates: Started: 7/25/89 Ended: 8/3/89	

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
0						Reddish brown, damp, stiff, SILT, some fine /medium sand, trace coarse sand, trace roots.						
	1	0-1.5'	3/6/7	1.5/0.9'	13						0.6	
						Auger cutting indicated fine/medium gravel layer 3 to 5 ft.						
5	2	5-6.5'	8/8/7	1.5/0.7'	15	- As above, trace clay, no roots.					0	
							~7'					
						Light brown, saturated, dense, fine/medium SAND, little silt, occasional interbeds of light brown, silty clay.						
10	3	10-11.5	9/17/20	1.5/1.5'	37						40	
15	4	15-15.2	50/.2	0.2'/0'	50+	Same as above, possible cobble layer.					7	
	5	15.5-16	50/.4	0.4/0.4'	50+	Same as above.						
20							21.0'					
						Gray green, dry, non-calcareous, very weathered to relatively competent fissile SHALE with interbedded dark brown clayey silt.						
	6	23-24.9	18/30/54- 50/.4'	2'/1.9'	84							
	7	24.5-26	80/1.5'	1.5/1.5'	53							
25												
	8	26-27.1	24/53- 25/.1'	1.1/1.1'	78+	NOTE: 4" tricone drilling utilized 23 to 40 feet.						
	9	27.1-27.5	50/.4'	.4'/.4'	50+							
	10	25.7- 27.7'	50/.2'	.2'/.2'	50+							

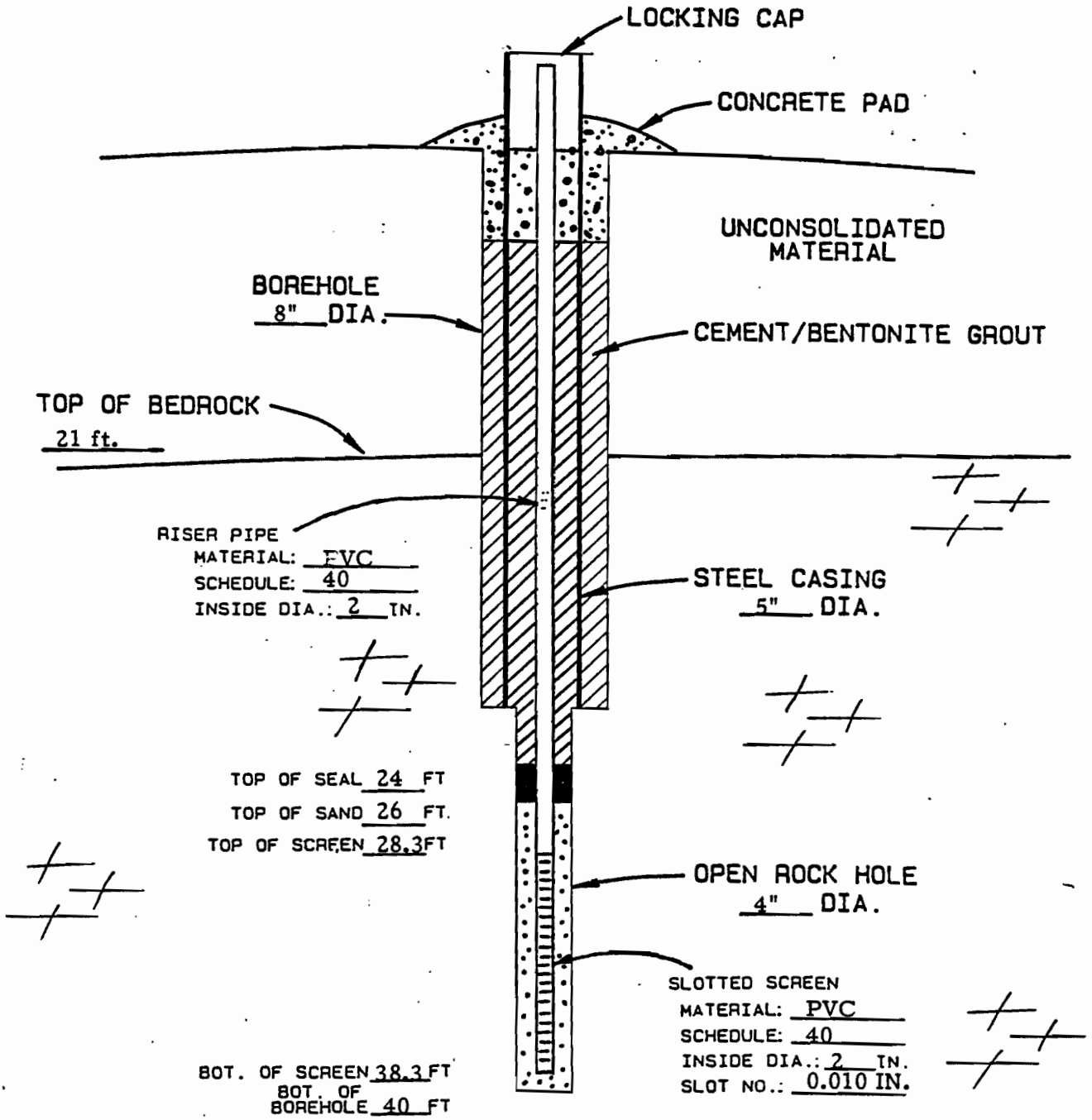
O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. MW-7 Sheet 2 of 2
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth Date Depth Date File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: NE of main disposal area
Ground Elevation:
Dates: Started: 7/25/89 Ended: 8/3/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remks*
35												
40						Bottom of boring at 40 ft.	40.0'					

MAESTRI SITE INVESTIGATION
MW-7



TYPICAL BEDROCK
MONITORING WELL
(NOT TO SCALE)

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. MW-8 Sheet 1 of 2
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth 14.6' Date 8/1/89 Depth 15.8' Date 8/2/89 File No.: 3213.004.576

Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: East of main disposal area
Ground Elevation: 406.14 ft.
Dates: Started: 7/26/89 Ended: 8/1/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remarks
0	1	0-1.5'	3/4/9	1.5/0.9'	13	Reddish brown, damp, stiff, SILT, some clay trace fine/medium sand and fine/medium gravel, trace roots.					3.0	
							~5.0'					
5	2	5-6.5'	1/2/1	1.5/0.9'	3	Light brown and yellowish brown, very moist soft, SILT, some fine/medium sand, little fine/medium gravel, trace clay.					3.0	
	3	7-7.2'	50/.2'	.2'/.2'	50+	-At 6 ft. grades to very dense, some fine/coarse gravel, little fine/medium sand.					300	
						NOTE: Very hard augering 6 to 11' interval.						
10	4	10-10.2	50/.2'	.2'/.2'	50+	Grades to reddish brown in color at 10 ft.					200	
						Reddish brown, saturated, very dense, fine/medium SAND, trace silt.	11.0'					
15	5	15-16.4	14/22-	1.4/1.4'	72+						110	
			50/.4'				16.5'					
	6	18-20'	10/14/-	2'/2'	34	Brown, saturated, dense, coarse SAND and fine GRAVEL, some silty clay matrix.					90	
			20/37				19.0'					
20	7	20-21.9	16/28-	2/1.9'	58	Reddish brown, saturated, dense, medium SAND with occasional rust and yellowish colored silt lenses.					1.0	
			30-50/.4				20.0'					
		21.9-	NX CORE	5'/3'	—	Gray green, dry, non-calcareous, very weathered to relatively competent fissile SHALE with interbedded dark brown clayey silt.						
		26.9'										
25						NOTE: 4" tricone drilling utilized 21.9 to 38.3 ft.						
30												

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. MW-8 Sheet 2 of 2
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth 14.6' Date 8/1/89 Depth 15.8' Date 8/2/89 File No.: 3213.004.576

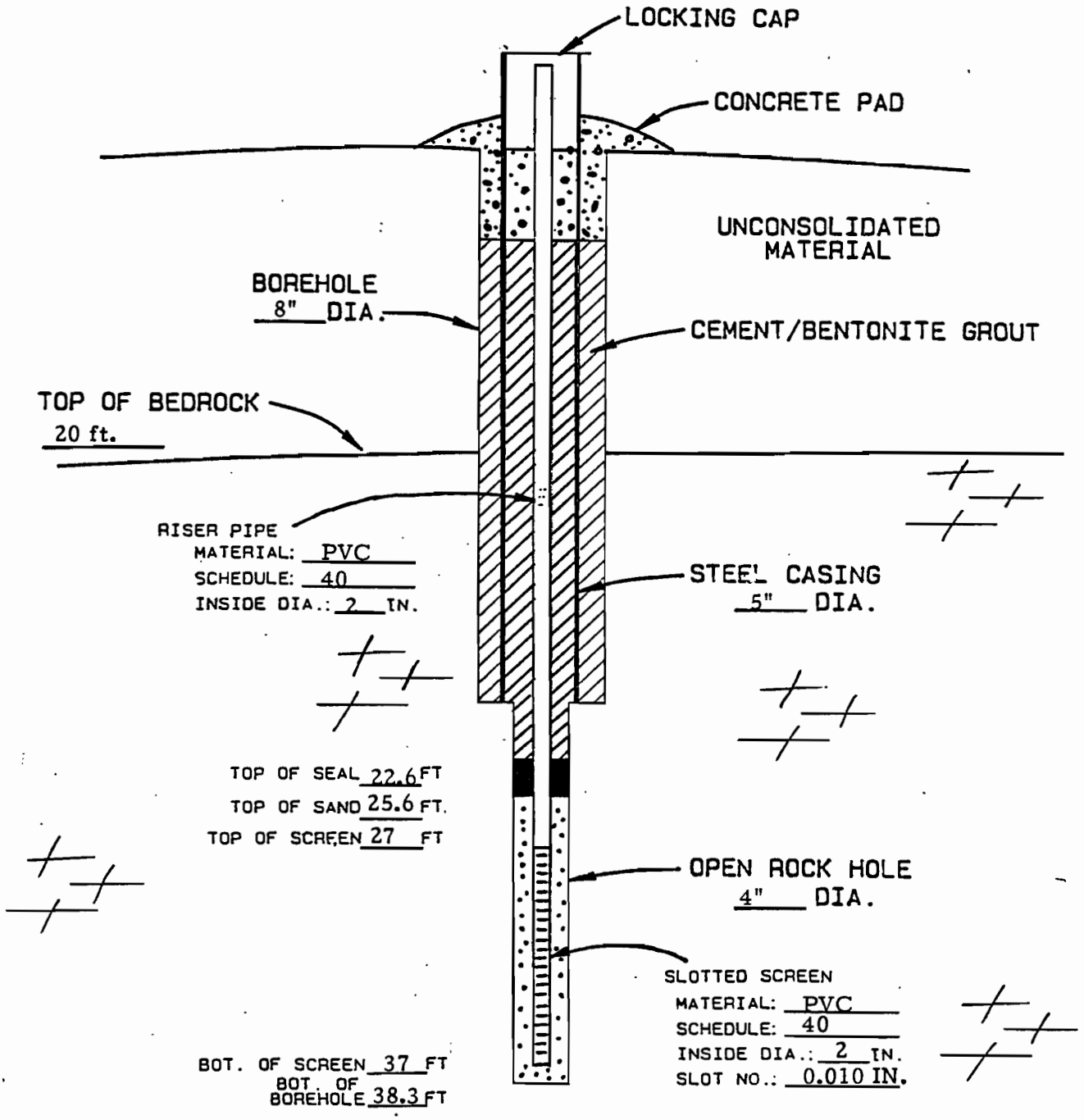
Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: East of main disposal area
Ground Elevation:
Dates: Started: 7/26/89 Ended: 8/1/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
35												
							38.3'					
						Bottom of boring at 38.3 ft.						
40												

2MW8.KJK
8/15/89

MAESTRI SITE INVESTIGATION
MW-8



TYPICAL BEDROCK
MONITORING WELL

(NOT TO SCALE)

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-9
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, N.Y.
Client: Stauffer Management Company

SAMPLER
Type: 3" Split Spoon
Hammer: 140 lbs. Fall: 30 inches

Ground Water Depth 9.45' Date 7/31/89
Depth Date
File No.: 3213.004.576

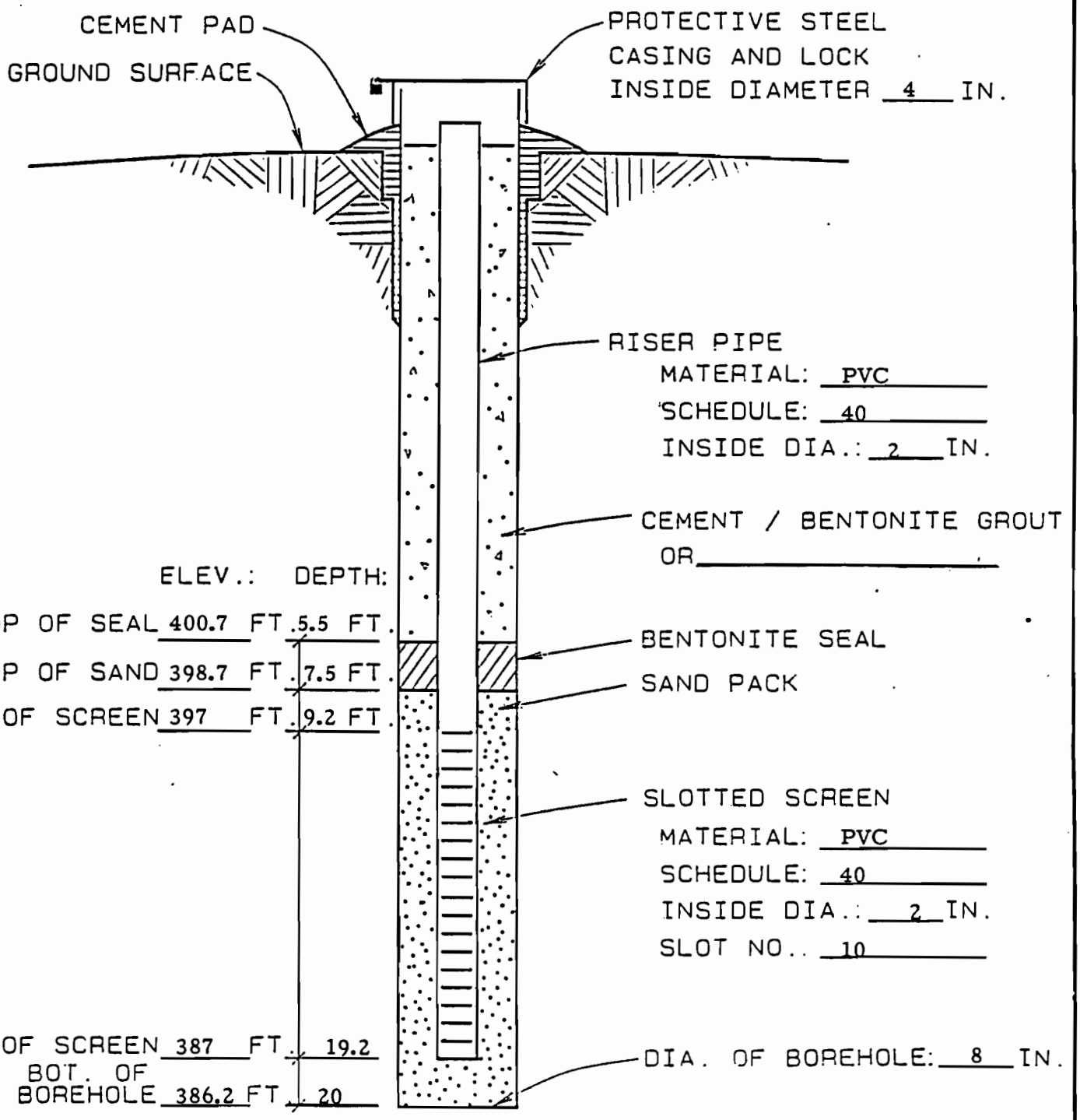
Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: East of main disposal area
Ground Elevation: 406.2 ft.
Dates: Started: 7/27/89 Ended: 7/27/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remarks
0						Augered to 20 ft. without sampling. See boring log MW-8 for descriptions.						
5												
						Fine to coarse gravel layer 7 to 12.5 ft.						
10												
15												
						Cobble layer 18 to 20 ft.						
20						Bottom of boring at 20 ft.	20.0'					

MW9.KJK
8/15/89

MAESTRI SITE INVESTIGATION
MW-9



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

O'BRIEN & GERE

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	Report of Boring No. MW-10 Sheet 1 of 1
Project Location: Maestri Site Investigation Geddes, N.Y. Client: Stauffer Management Company	SAMPLER Type: 3" Split Spoon Hammer: 140 lbs. Fall: 30 inches	Ground Water Depth 6.5' Date 7/24/89 Depth 7.9' Date 7/31/89 File No.: 3213.004.576

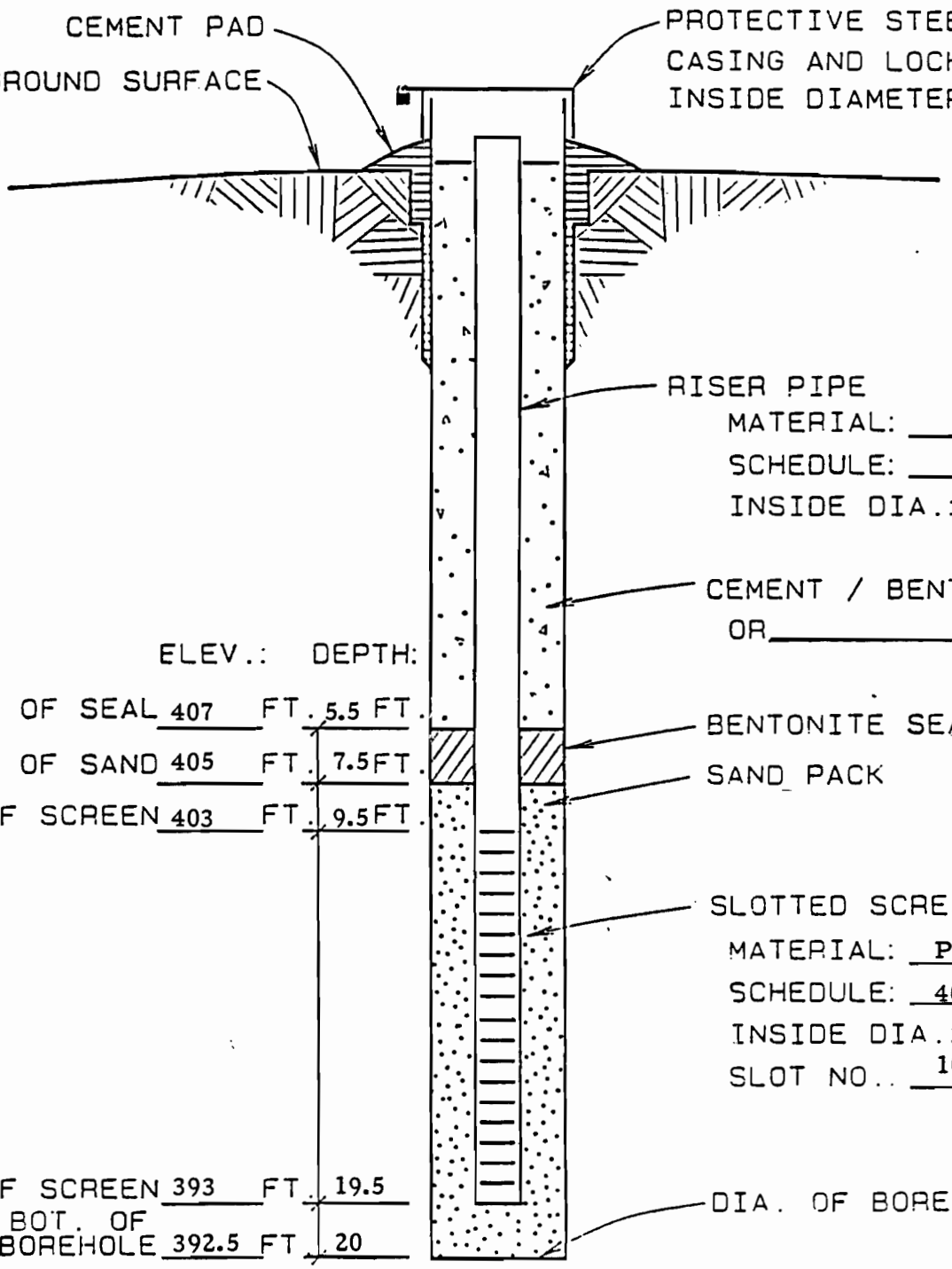
Boring Co.: Parratt-Wolff, Inc.
Foreman: Kevin White
OBG Geologist: Dennis Theoret

Boring Location: South West of main disposal area
Ground Elevation: 412.5 ft.
Dates: Started: 7/24/89 Ended: 7/25/89

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
0	1	0-1.5'	2/3/7	1.5/1.0'	10	Light brown, damp, medium dense, fine/medium SAND, some silt, trace roots.					0	
5	2	5-6.5'	6/4/6	1.5/1.1'	10	- As above, no roots, very moist. Auger cuttings saturated at approx. 6.5 ft.					1.2	
10	3	10-11.5	3/8/13	1.5/1.3'	21	- As above, saturated.					0.2	
15	4	15-16.5	21/29/33	1.5/1.4'	62	Light brown, very moist, very dense, fine/medium gravel, little fine/coarse sand, little silt, trace clay. Matrix is clay, silt and fine sand.	15.8'				0	
20	5	20-20.2	50/.2'	.2'/.2'	50+	Gray green and dark gray, non-calcareous, weathered fissile SHALE.	20.0'				0	
						Bottom of boring at 20 ft.	20.4'					

MW10.KJK
8/15/89

MAESTRI SITE INVESTIGATION
MW-10



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-11
Sheet 1 of 2

ject Location: Maestri Site Investigation
Geddes, New York
ent: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth 8' Date 6/22/90
Depth Date
File No.: 3213.004.577

ng Co.: Parratt-Wolff, Inc.
eman: Billy Rice
Geologist: Dennis R. Theoret

Boring Location: South of MW-10
Ground Elevation: 416.50 Ft.
Dates: Started: 6/22/90 Ended: 6/26/90

pth	Sample No	Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Sp Cond	HNU	Rmks
	1	0'-2'	4/7/11/16	2'/1.17'	18	Reddish brown, dry, very stiff, clayey SILT, little very fine to fine sand, trace olive green coarse sand size shale fragments					BG	
5												
	2	5'-7	14/16	2'/1.71'	40	Same as above, light green mottling noted, damp at 7 feet, hard					BG	
			24/25									
10												
	3	10'-12'	12/18	2'/1.42'	39	Same as above, moist, 2 inch water bearing sandy gravel lens at 10.5 feet					BG	
			21/13									
15												
	4	15'-	23/22	1.9/1.7	72	Same as above, no lenses noted in split spoon sample					BG	
		16.9'	50/50/.3									
20												
	5	20'-	24/51	1.75'/	109	Dark, red, damp, hard CLAY, with some embedded very coarse and fine gravel					BG	
		21.75'	58/50/.25	1.67'			21'					
						Olive green, dry, non-calcarreous SHALE, fissile, weathered (Vernon Shale)						
25												
						Note: 5" tricone drilling utilized 23 to 40.5 feet, black organic material noted in bedrock drilling water						
30												

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-11
Sheet 2 of 2

Project Location: Maestri Site Investigation
Geddes, New York
Client: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

Boring Co.: Parratt-Wolff, Inc.
Foreman: Billy Rice
OBG Geologist: Dennis R. Theoret

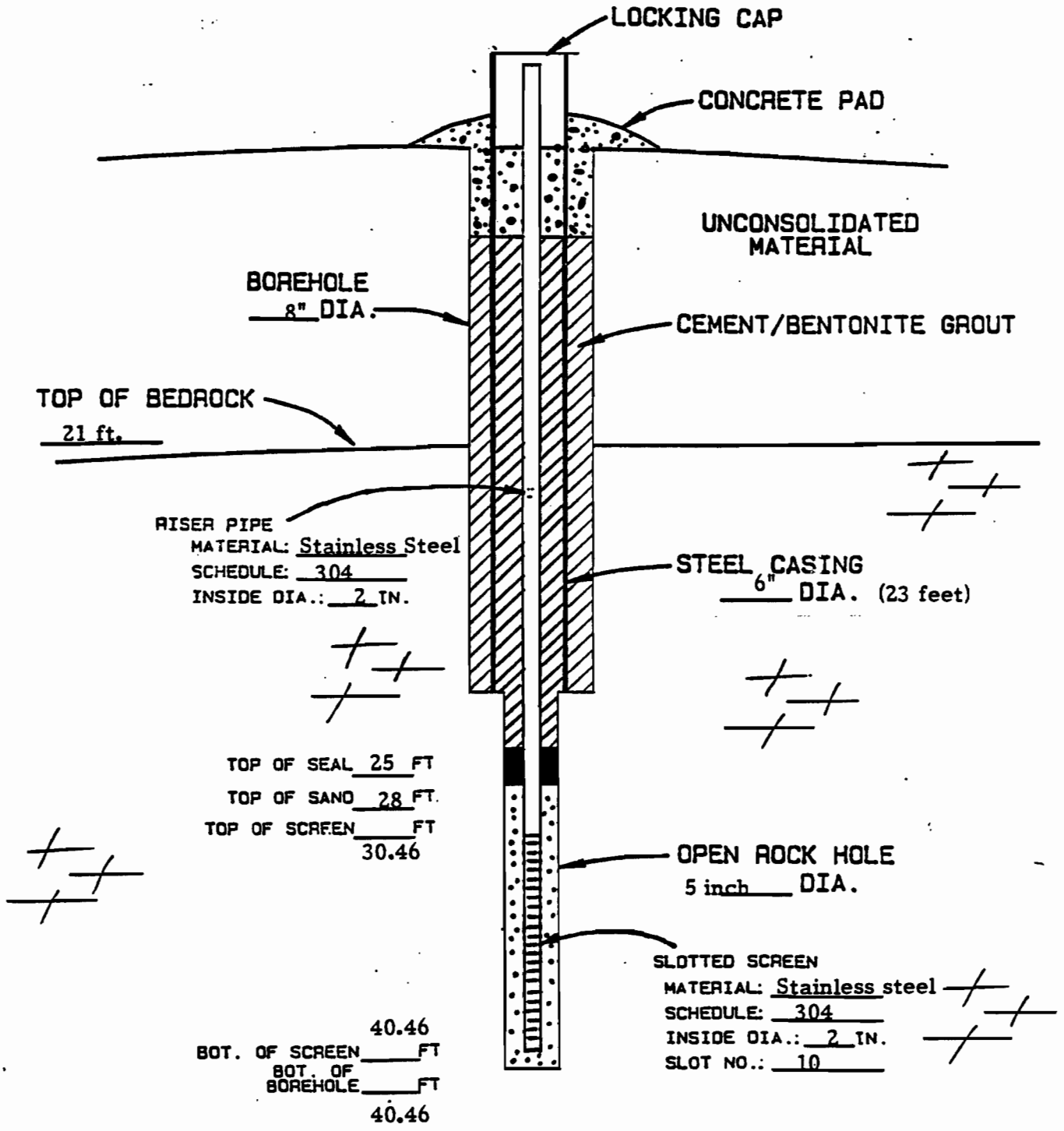
Boring Location: South of MW-10
Ground Elevation: 416.50 Ft.
Dates: Started: 6/22/90 Ended: 6/26/90

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Sp Cond	HNU	Remks*
35												
40							40.5'					
						Bottom of Boring at 40.5 feet						
						BG = Background Readings on PID						

MW112.cmb

FIGURE

MAESTRI SITE INVESTIGATION
MW-11



TYPICAL BEDROCK
MONITORING WELL

(NOT TO SCALE)

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-12
Sheet 1 of 1

oject Location: Maestri Site Investigation
Geddes, New York
ent: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

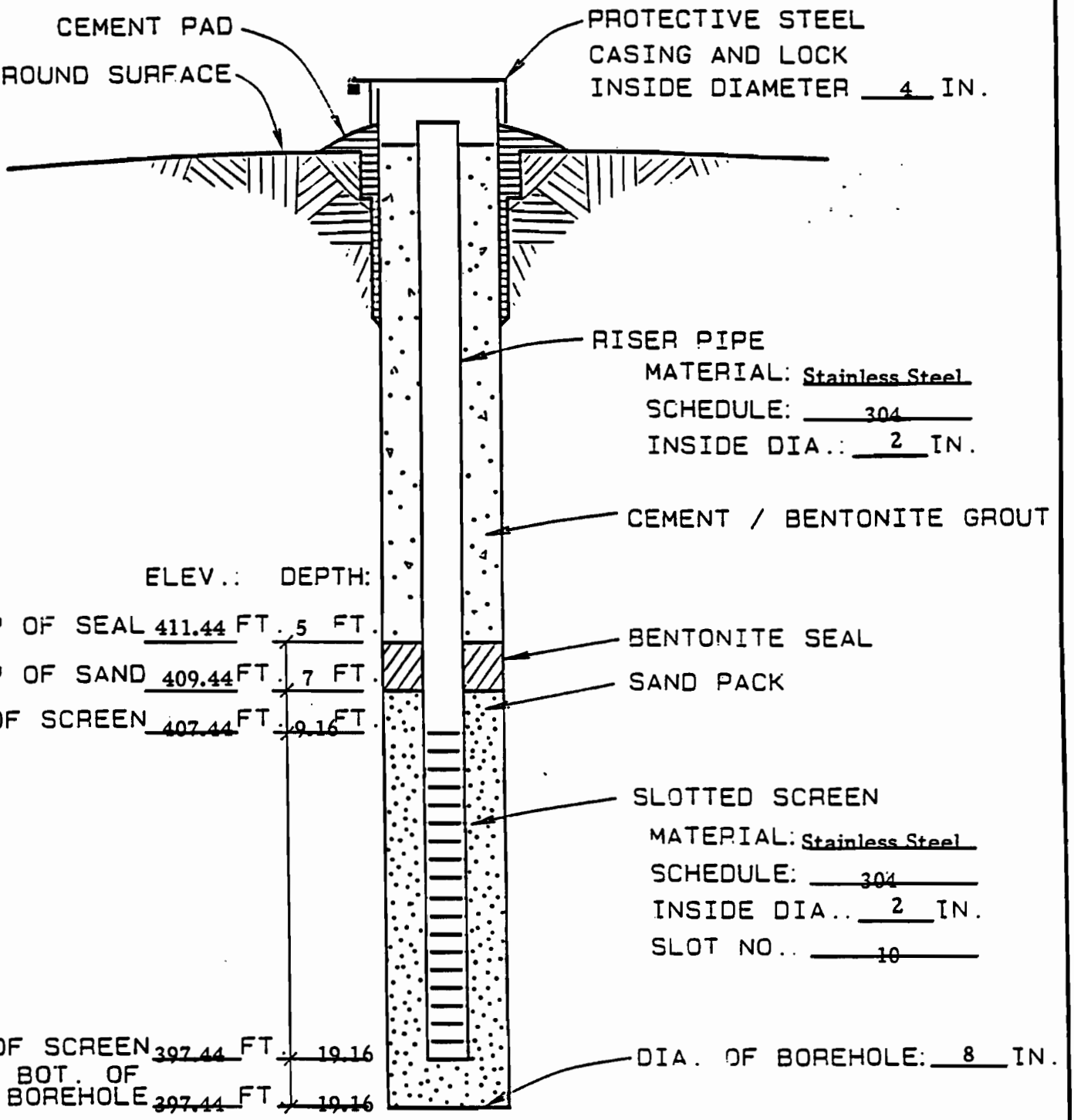
ring Co.: Parratt-Wolff, Inc.
reman: Billy Rice
OBG Geologist: Dennis R. Theoret

Boring Location: Adjacent MW-11
Ground Elevation: 416.6 Ft.
Dates: Started: 6/25/90 Ended: 6/25/90

Depth 0	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
						Augered to 19 feet without sampling. See boring log MW-11 for descriptions.						
5												
10												
15												
20						Bottom of Boring at 19 feet.	19'					

MW12.cmb

MAESTRI SITE INVESTIGATION
MW-12



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-13
Sheet 1 of 2

oject Location: Maestri Site Investigation
Geddes, New York
lient: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

ing Co.: Parratt-Wolff, Inc.
reman: Billy Rice
G Geologist: Dennis R. Theoret

Boring Location: Northern Corner of Site
Ground Elevation: 404.6 Ft.
Dates: Started: 7/2/90 Ended: 7/4/90

pth 0	Sample No	Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Sp Cond	HNU	Rmks*
	1	0'-2'	2/4/4/6	2'/1.5'	8	Brown and tan, dry, loose, silty, fine to medium SAND, trace fine to coarse gravel					BG	
5												
	2	5'-7'	12/16	2'/1.3'	29	Reddish brown (pred.), gray, light green, very moist, medium dense, fine to coarse GRAVEL and fine to very coarse SAND, some cobbles, gravel is well-rounded, very difficult augering					BG	
			13/10									
10												
	3	10'-	22/29	1.5'/	92	Same as above, very dense					BG	
		11.5'	63	1.3'								
15												
	4	15'-	41/42	1.9'/	76	Same as above, saturated, augering easier					BG	
		16.9'	34/50/.4	1.9'								
20												
	5	20'-22'	13/17	2'/.75'	37	Same as above, dense					BG	
			20/28				22.5'					
						Dark red, damp, hard CLAY, some embedded well rounded, coarse to very coarse sand and fine to coarse gravel, sand size olive green shale fragments noted (TILL)					BG	
	6	23'-	30/56	1.5'/	171							
25		24.5'	115	1.4'								
	7	25'-26'	34/187	1'/.8'	221	Same as above					BG	
							27.8'					
	8	28'-29'				Olive green, dry, non-calcarreous SHALE, fissile, weathered (Vernon Shale), satin spar gypsum (1/16 to 1/4 inch thick), noted as fracture fillings in rock					
30												

MW13.cmb

'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-13
Sheet 2 of 2

oject Location: Maestri Site Investigation
Geddes, New York
ient: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

ing Co.: Parratt-Wolff, Inc.
reman: Billy Rice
G Geologist: Dennis R. Theoret

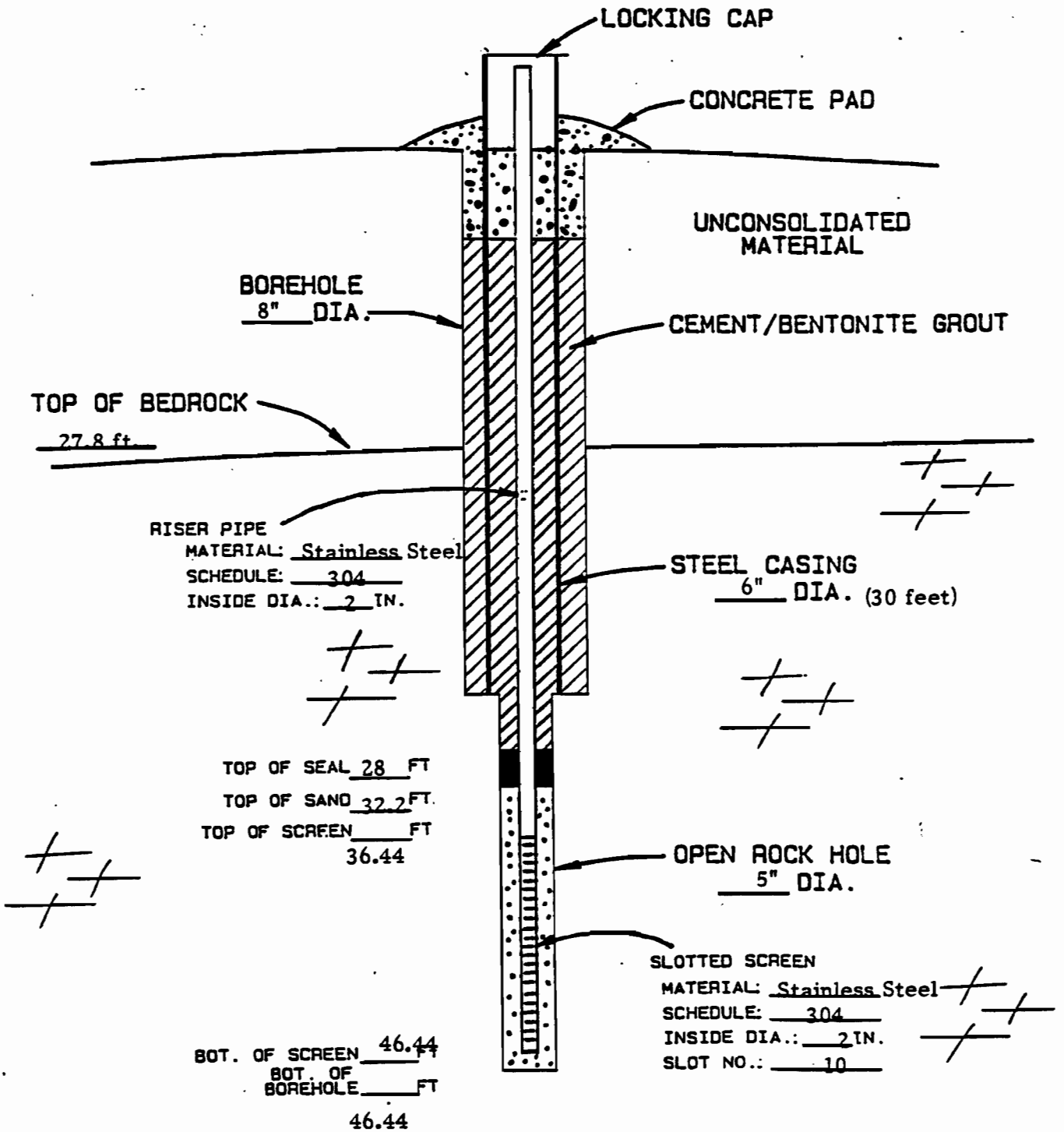
Boring Location: Northern Corner of Site
Ground Elevation: 404.6 Ft.
Dates: Started: 7/2/90 Ended: 7/4/90

epth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
						Note: 5" tricone drilling utilized 30-46.5 feet, black organic material noted in bedrock drilling water.						
35												
40												
45												
							46.5'					
						BG = Background Readings on PID						
50												

MW132.cmb

MAESTRI SITE INVESTIGATION

MW-B



TYPICAL BEDROCK
MONITORING WELL

(NOT TO SCALE)

BRIEN & GERE
NGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-14
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, New York
ient: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

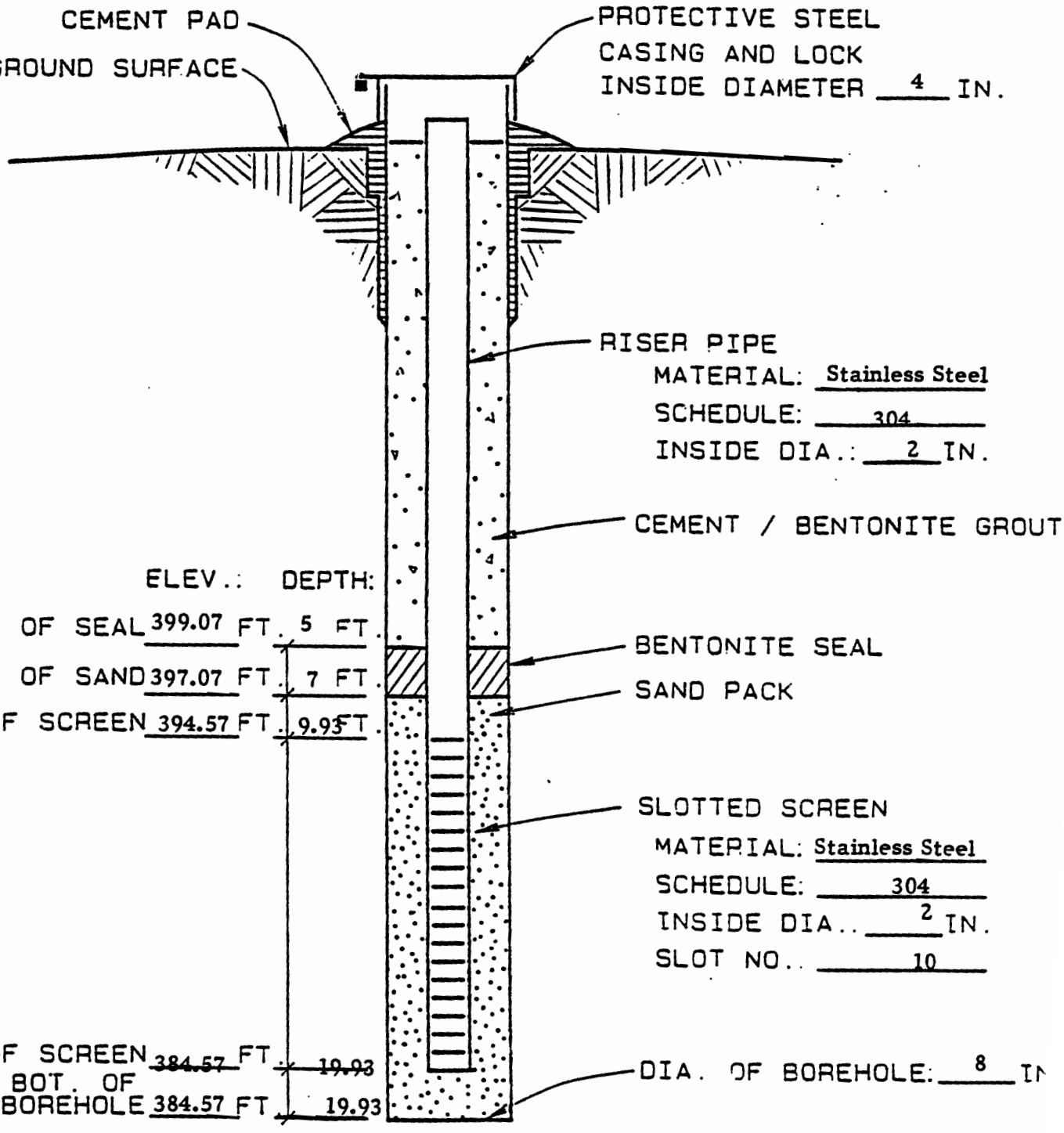
ng Co.: Parratt-Wolff, Inc.
..eman: Billy Rice
G Geologist: Dennis R. Theoret

Boring Location: Northern Corner of Site, Adjacent MW-13
Ground Elevation: 404.5 Ft.
Dates: Started: 7/3/90 Ended: 7/3/90

epth 0	Sample No	Sample Depth	Sample Blows /6"	Sample Penetr/ Recovry	Sample "N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
						Augered to 19.9 feet without sampling. See boring log Mw-13 for descriptions.						
5												
10												
15												
20							19.9'					

MW14.cm

MAESTRI SITE INVESTIGATION
MW-14



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

'BRIEN & GERE
NGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-15
Sheet 1 of 2

Project Location: Maestri Site Investigation
Geddes, New York
ient: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

ing Co.: Parratt-Wolff, Inc.
reman: Billy Rice
G Geologist: Dennis R. Theoret

Boring Location: Fisher residence : 151 Alhan Parkway
Ground Elevation: 391.1 Ft.
Dates: Started: 6/27/90 Ended: 6/29/90

Depth 0	Sample No	Sample Depth	Sample Blows /6"	Sample Penetr/ Recovry	Sample "N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
	1	0'-2'	1/4/6/15	2'/1.25'	10	Brown, dry, stiff SILT and CLAY grading into brown, dry, silty, very fine SAND					BG	
						Gray, dry, loose, silty very fine SAND, little medium to coarse gravel (FILL)	1.5'					
5												
	2	5'-7'	6/13	2'/1.5'	30	Reddish brown, very moist, hard SILT, and fine to medium SAND, some very coarse sand and fine to medium gravel (FILL)					BG	
			17/24									
10												
	3	10'-12'	22/38	2'/1.17'	76	Dark red (pred.), tan, gray, brown, black, saturated, very dense, coarse to very coarse SAND and fine to coarse GRAVEL, little silt -As augers advanced from 10-15 feet, noted well rounded oblate-shaped cobbles					BG	
			38/42									
15												
	4	15'-17'	25/37	2'/.75'	75	Same as above, trace calcite noted					BG	
			38/41									
20												
	5	20'-21'	31/62	1'/.75'	93	Same as above, dark red in color					BG	
							23'					
	6	23'-24'	27/50	1'/.75'	77	Dark red, damp, silty CLAY, some embedded coarse to very coarse sand and fine to coarse gravel, gravel size olive green angular shale fragments noted (TILL)					BG	
25												
	7	25'-26'	20/51	1'/1'	71							
							28'					
	8	28'-29'	42/52	1'/.32'	94	Olive green, non-calcareous SHALE, fissile, weathered (Vernon Shale)					BG	
30												

Note: 5" tricone drilling utilized 30 to 45 feet, black organic material noted in bedrock drilling water.

MW15.cmb

'BRIEN & GERE
NGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-15
Sheet 2 of 2

Project Location: Maestri Site Investigation
Geddes, New York
ient: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

ing Co.: Parratt-Wolff, Inc.
oreman: Billy Rice
BG Geologist: Dennis R. Theoret

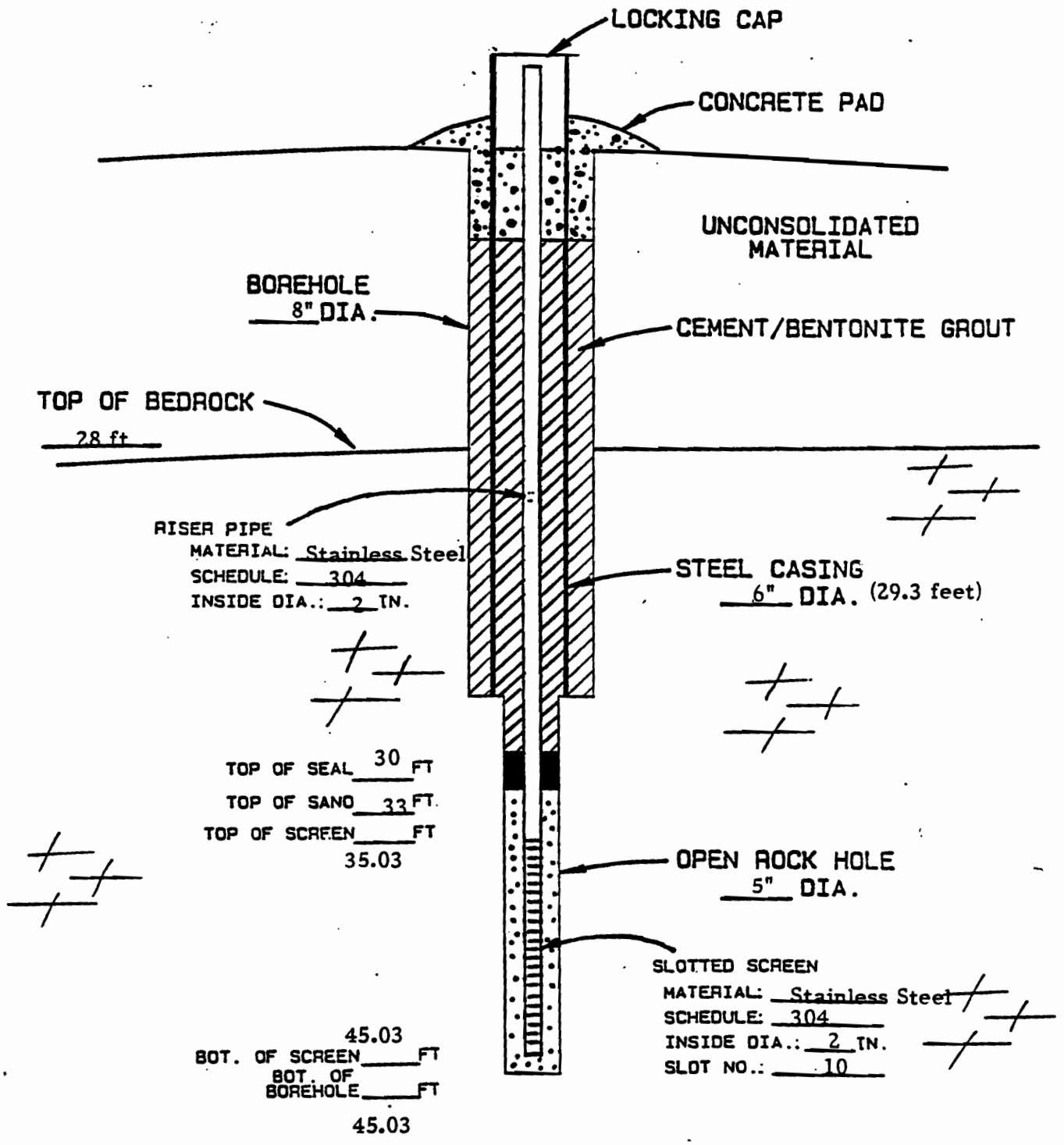
Boring Location: Fisher residence : 151 Alhan Parkway
Ground Elevation: 391.1 Ft.
Dates: Started: 6/27/90 Ended: 6/29/90

epth	Sample No	Sample Depth	Sample Blows /6"	Sample Penetr/ Recovry	Sample "N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
35												
40												
45						Bottom of Boring at 45 feet	45'					
50						BG = Background Readings on PID						

MW152.cml

FIGURE

MAESTRI SITE INVESTIGATION
MW-15



TYPICAL BEDROCK
MONITORING WELL

(NOT TO SCALE)

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-16
Sheet 1 of 1

ject Location: Maestri Site Investigation
Geddes, New York
Client: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

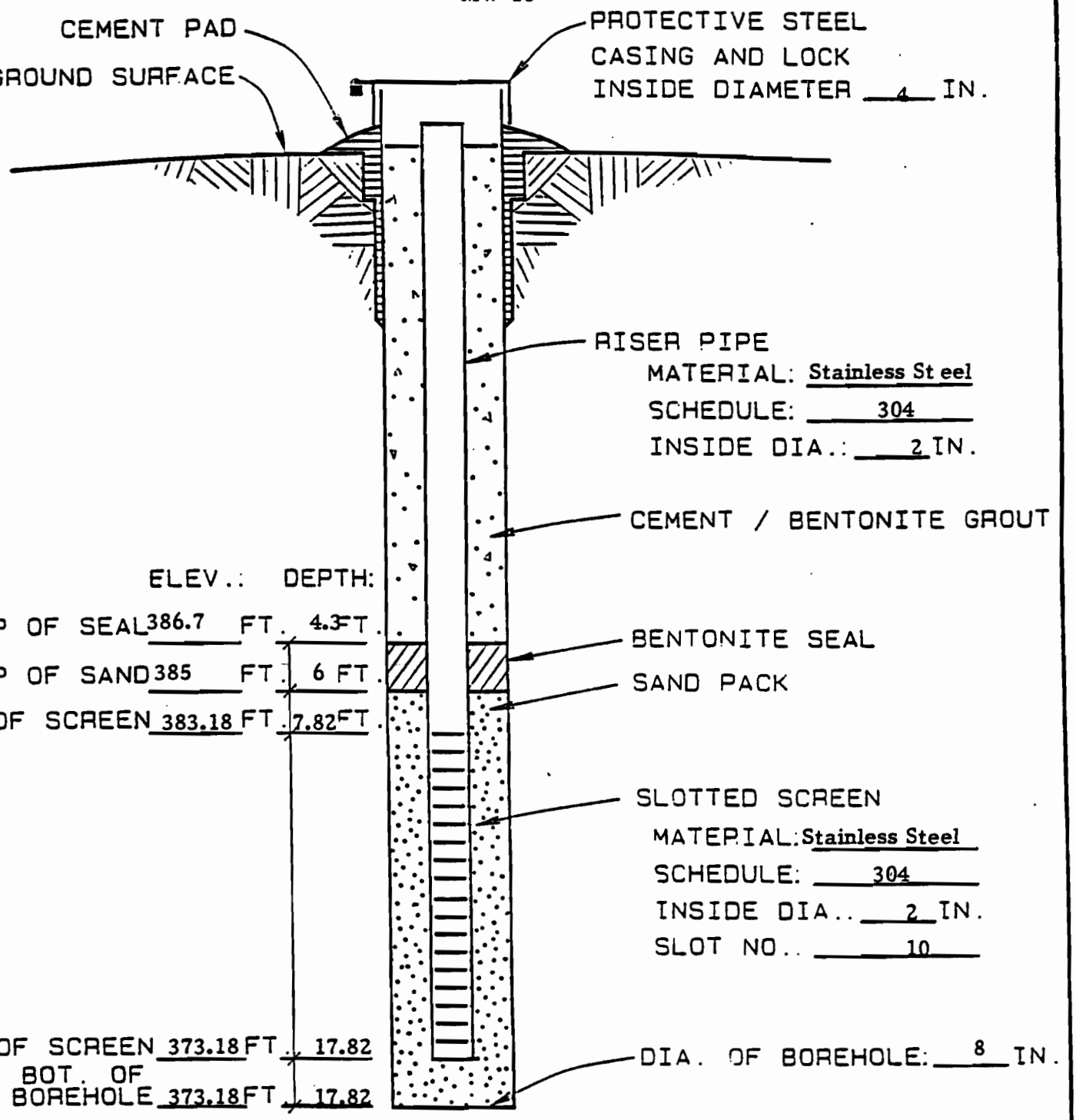
ng Co.: Parratt-Wolff, Inc.
eman: Billy Rice
OBG Geologist: Dennis R. Theoret

Boring Location: Fisher residence : 151 Alhan Parkway
Ground Elevation: 391.0 Ft.
Dates: Started: 6/28/90 Ended: 6/28/90

Depth 0	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
						Augered to 17.8 feet without sampling. See boring log MW-15 for descriptions.						
5												
10												
15												
							17.8'					
20												

MW16.cmb

MAESTRI SITE INVESTIGATION
MW-16



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-17
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, New York
Client: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

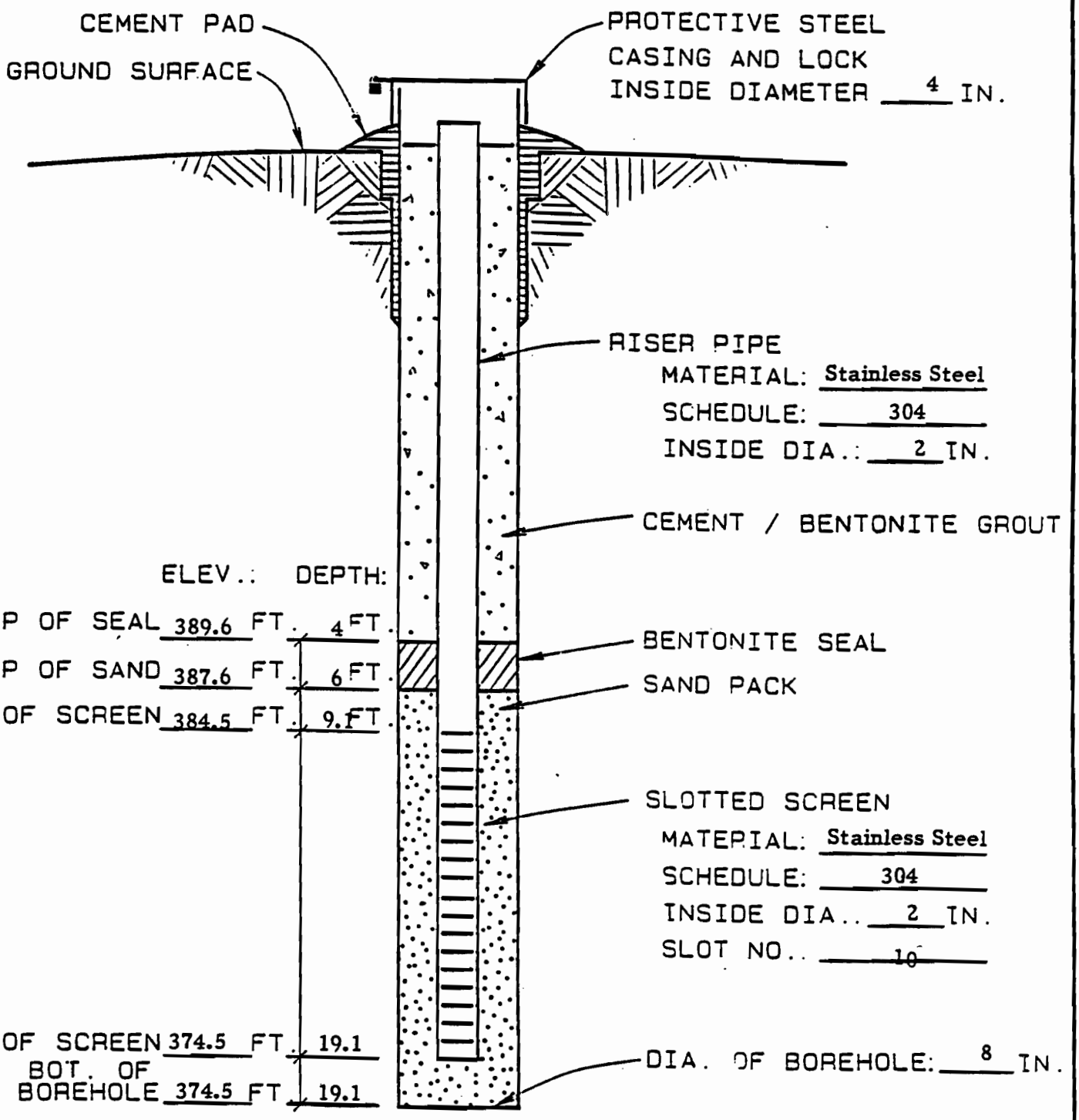
Drilling Co.: Parratt-Wolff, Inc.
Foreman: Billy Rice
OBG Geologist: Dennis R. Theoret

Boring Location: Cook residence : 149 Alhan Parkway
Ground Elevation: 393.6 Ft.
Dates: Started: 7/2/90 Ended: 7/2/90

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remarks
0	1	0'-2'	2/5	2'/1.3'	8	Brown, damp, stiff SILT, little clay, little fine to coarse sand, little fine to coarse gravel					BG	
			3/4				2'					
						Reddish brown, very moist, very dense, coarse to very coarse SAND and fine to medium GRAVEL, little very fine to fine sand, little coarse rounded gravel						
5												
	2	5'-7'	33/43	2'/1.8'	69						0.7	
			26/27									
						Saturated at 8.5 feet						
10												
	3	10'-	52	.5'/.5'		Same as above					2.2	
		10.5'										
15												
	4	15'-16'	19/55	1'/1'	74	Same as above, trace silt					0.8	
						(Approximate)	17'					
						Light green, damp CLAY, little coarse to very coarse sand (auger sample) (TILL)						
20						BG = Background Readings on PID						
						HNU Readings are in PPM.						

MW17.cwb

MAESTRI SITE INVESTIGATION
MW-17



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-18
Sheet 1 of 1

ject Location: Maestri Site Investigation
Geddes, New York
Client: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

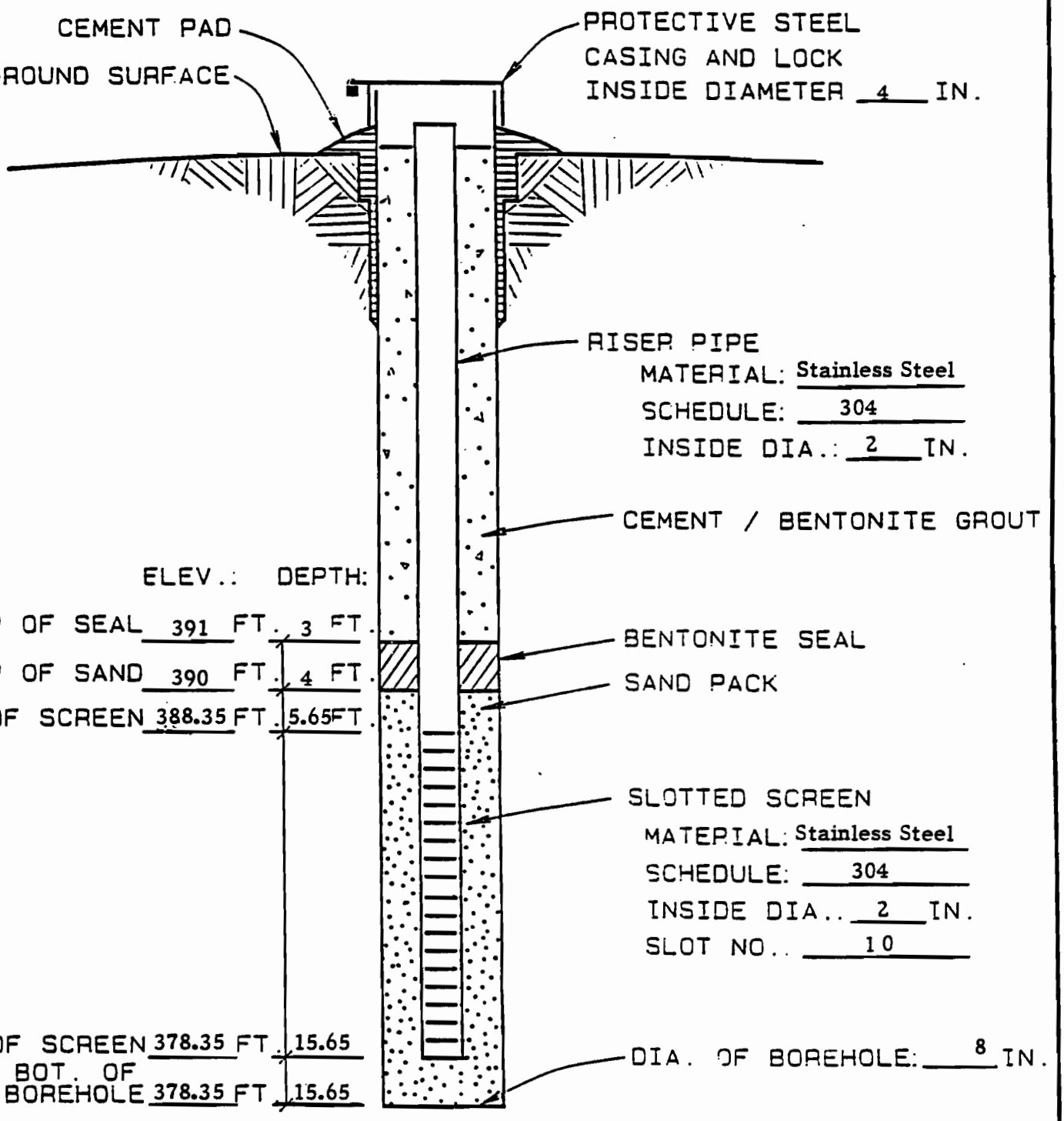
ing Co.: Parratt-Wolff, Inc.
eman: Billy Rice
Geologist: Dennis R. Theoret

Boring Location: Grimsley residence : 145 Alhan Parkway
Ground Elevation: 394.0 Ft.
Dates: Started: 7/10/90 Ended: 7/10/90

pth 0	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
						Augered to 15.7 feet without sampling. See boring log MW-19 for descriptions.						
5												
10												
15						Bottom of Boring at 15.7 feet.	15.7'					
20												

MW18.cwb

MAESTRI SITE INVESTIGATION
MW-18



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-19
Sheet 1 of 2

Project Location: Maestri Site Investigation
Geddes, New York
Client: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

Drilling Co.: Parratt-Wolff, Inc.
Foreman: Billy Rice
O'B Geologist: Dennis R. Theoret

Boring Location: Grimsley residence : 145 Alhan Parkway
Ground Elevation: 394.0 Ft.
Dates: Started: 7/9/90 Ended: 7/10/90

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
0	1	0'-2'	3/3/3/10	2'/1.5'	6	Dark, brown, moist, medium stiff, fine, sandy SILT, little medium to coarse gravel					BG	
							1.8'					
						Reddish brown, moist, very dense, coarse to very coarse SAND, some fine to coarse gravel and cobbles, trace silt, trace very fine to medium sand (auger sample)						
5												
	2	5.0	30/0	0/0								
10												
	3	10'-	35/48	1.9'/	89	Reddish brown, saturated, very dense, coarse to very coarse SAND and fine GRAVEL, little very fine fine to medium sand, trace silt					BG	
		11.9'	41/50/.4	1.9'								
15							14.5'					
	4	15'-17'	11/15	2'/1.2'	49	Dark red, damp, hard CLAY with some embedded very coarse sand and fine gravel (TILL)					BG	
			34/43				15.5'					
	5	17'-19'	29/38	2'/.9'	80	Olive green, damp, hard CLAY with some embedded fine gravel-size fragments of Vernon Shale bedrock (TILL)					BG	
			41/58				18.5'					
20						Gray and olive green, dry, non-calcareous SHALE, weathered, fissile (Vernon Shale), satin spar gypsum (1/4" thick) noted filling rock fractures					BG	
	6	20'-	75/.2	.2/.2	75+							
		20.2'										
25						Note: 5" tricone drilling utilized 23.5 to 40 feet, black organic material noted in bedrock drilling water						
30												

*

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. MW-19
Sheet 2 of 2

ject Location: Maestri Site Investigation
Geddes, New York
ient: Stauffer Management Company

SAMPLER
Type: Split Spoon
Hammer: 140 lb. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004.577

ing Co.: Parratt-Wolff, Inc.
eman: Billy Rice
OBG Geologist: Dennis R. Theoret

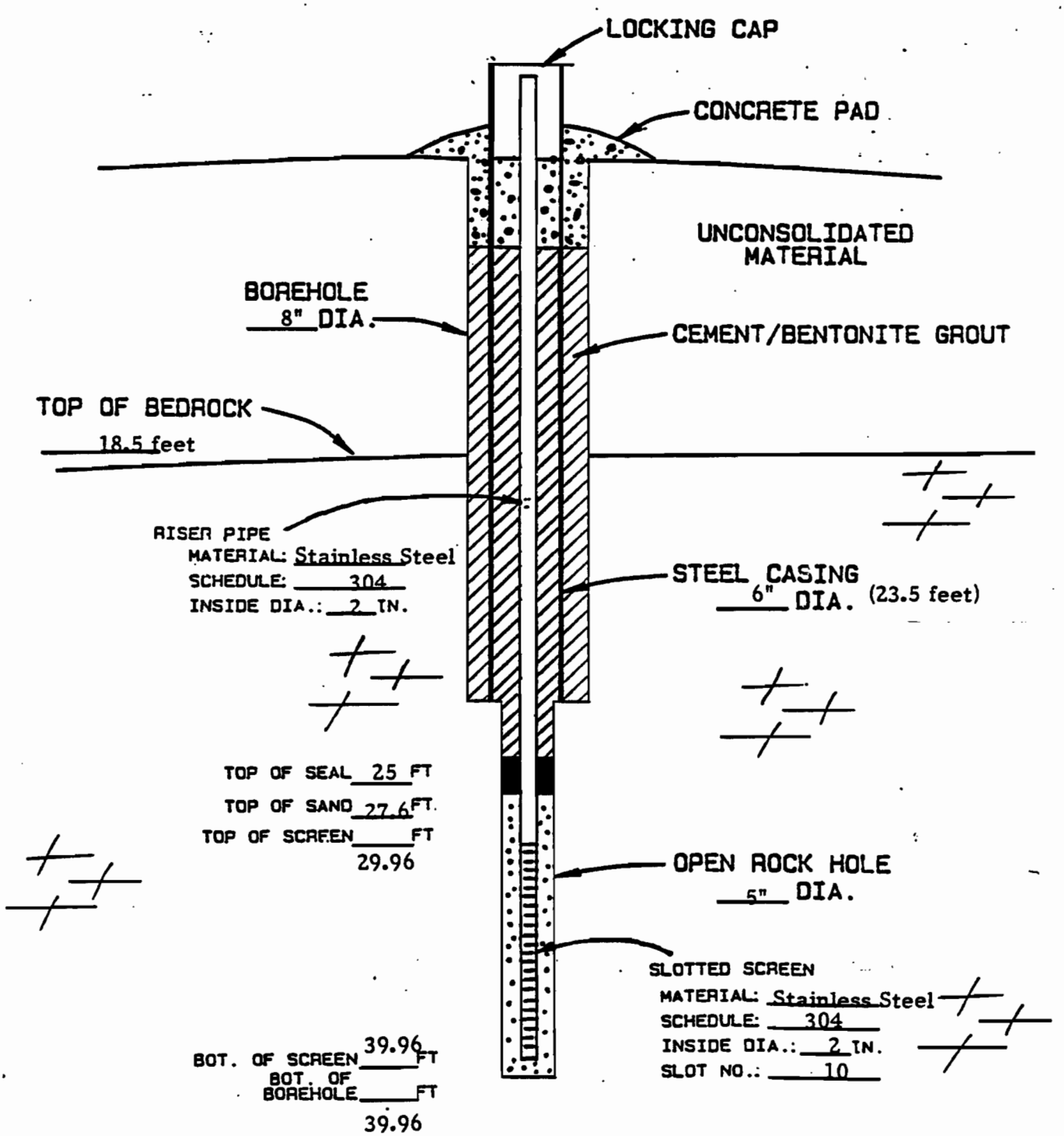
Boring Location: Grimsley residence : 145 Alhan Parkway
Ground Elevation: 394.0 Ft.
Dates: Started: 7/9/90 Ended: 7/10/90

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks*
SS												
40							40'					
						Bottom of Boring at 40 feet.						
						BG = Background Readings on PID						

MW192.cmb

FIGURE

MAESTRI SITE INVESTIGATION
MW-19



TYPICAL BEDROCK
MONITORING WELL

(NOT TO SCALE)

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. PZ-1
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, New York
Client: Stauffer Management Company

SAMPLER
Type: 2" Split Spoon
Hammer: 140 lbs. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004

Boring Co.: Parratt-Wolff, Inc.
Foreman: Arnold Chappel
OBG Geologist: Dennis Theoret

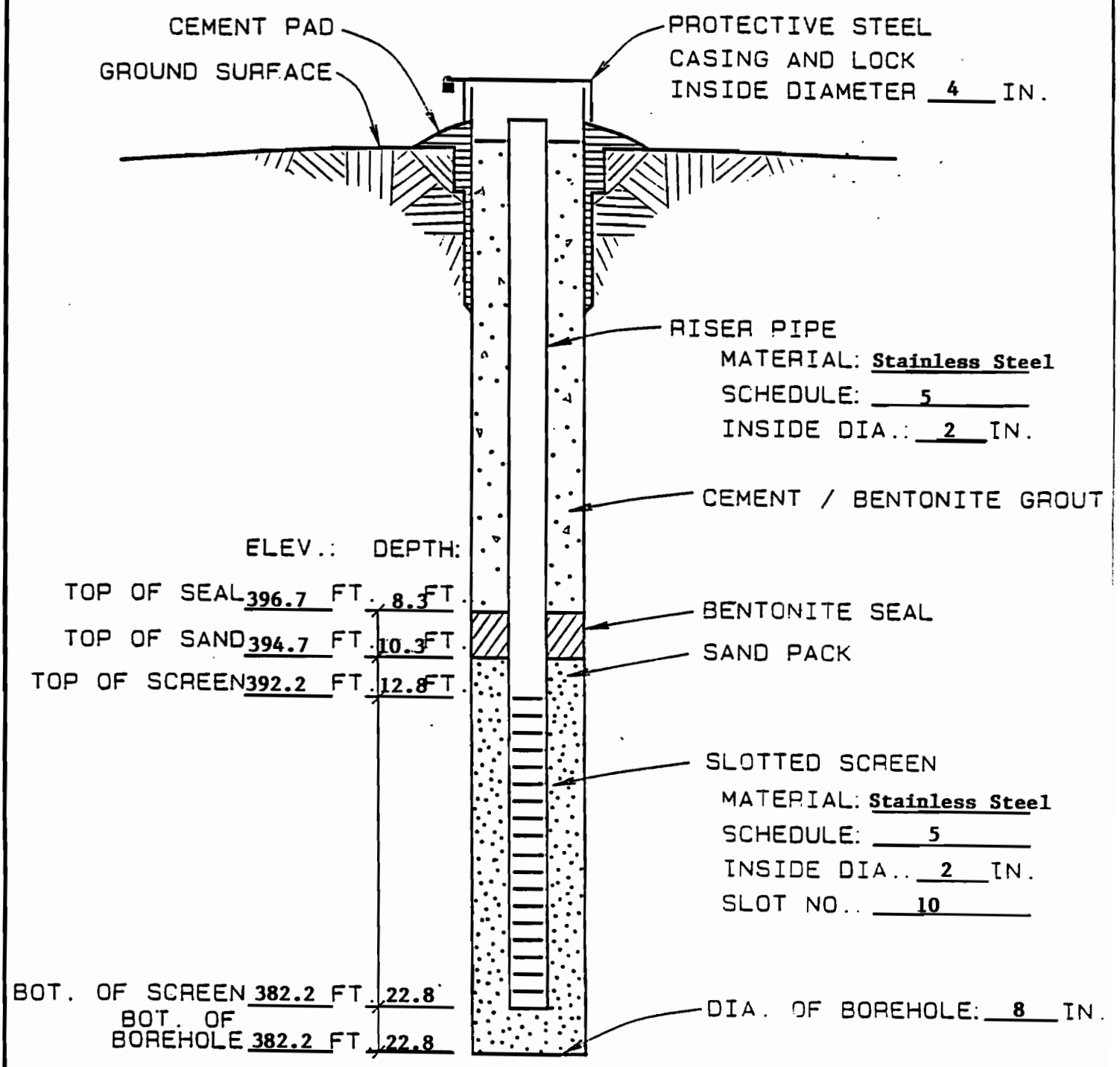
Boring Location: 40 ft. north of MW-6
Ground Elevation:
Dates: Started: 10/29/90 Ended: 10/29/90

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Rmks
0	1	0-2'	4-6-7-8	2'/0.8'	13	Brown to reddish brown, moist and wet, stiff SILT, some very fine and fine sand, trace medium to coarse gravel						
5	2	5-7'	9-25-	2'/1.4'	47	Reddish brown, moist, dense, medium to coarse GRAVEL, some silt/clay, very fine to coarse sand	5.5'					
			22-30									
10	3	10-10.9	10-75/.4	0.9/0.9'	85+	(Very hard augering 5.5 to 11.5', cobbles)						
	4	12-14'				Reddish brown to brown, saturated, fine to coarse GRAVEL, little very fine to coarse sand, trace silt	11.5'					
	5	14-14.5	60/.5	0.5/0.5'	60+	Brown and reddish brown, damp, medium to coarse GRAVEL, little fine to coarse sand, little silt	13.0'					
15												
	6	16-18'	23-25-	2'/1.7'	58	Grades to fine to coarse GRAVEL and COBBLES little very fine to very coarse sand, trace silt, saturated						
			33-32									
	7	18-20'		2'/2'								
20	8	20-21.9	10-21-	2'/1.2'	108	Grades to fine to coarse SAND, some fine to coarse gravel						
			87-50/.4				22.0'					
	9	22-23.5	67-78-	1.5/1.2'	177	Dark red, damp, hard CLAY, some embedded very coarse sand and fine to coarse gravel						
			99-110									
	10	23.5-	26-47-	1.9/1.9'	127	(Bottom of boring 25.4 ft.)						
		25.4'	80-80/.4									

PZ1.KJF

FIGURE

Maestri Site Investigation
PZ-1



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

WELLSKE1 R42 L1

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. PZ-2
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, New York
Client: Stauffer Management Company

SAMPLER
Type: 2" Split Spoon
Hammer: 140 lbs. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004

Boring Co.: Parratt-Wolff, Inc.
Foreman: Arnold Chappel
OBG Geologist: Dennis Theoret

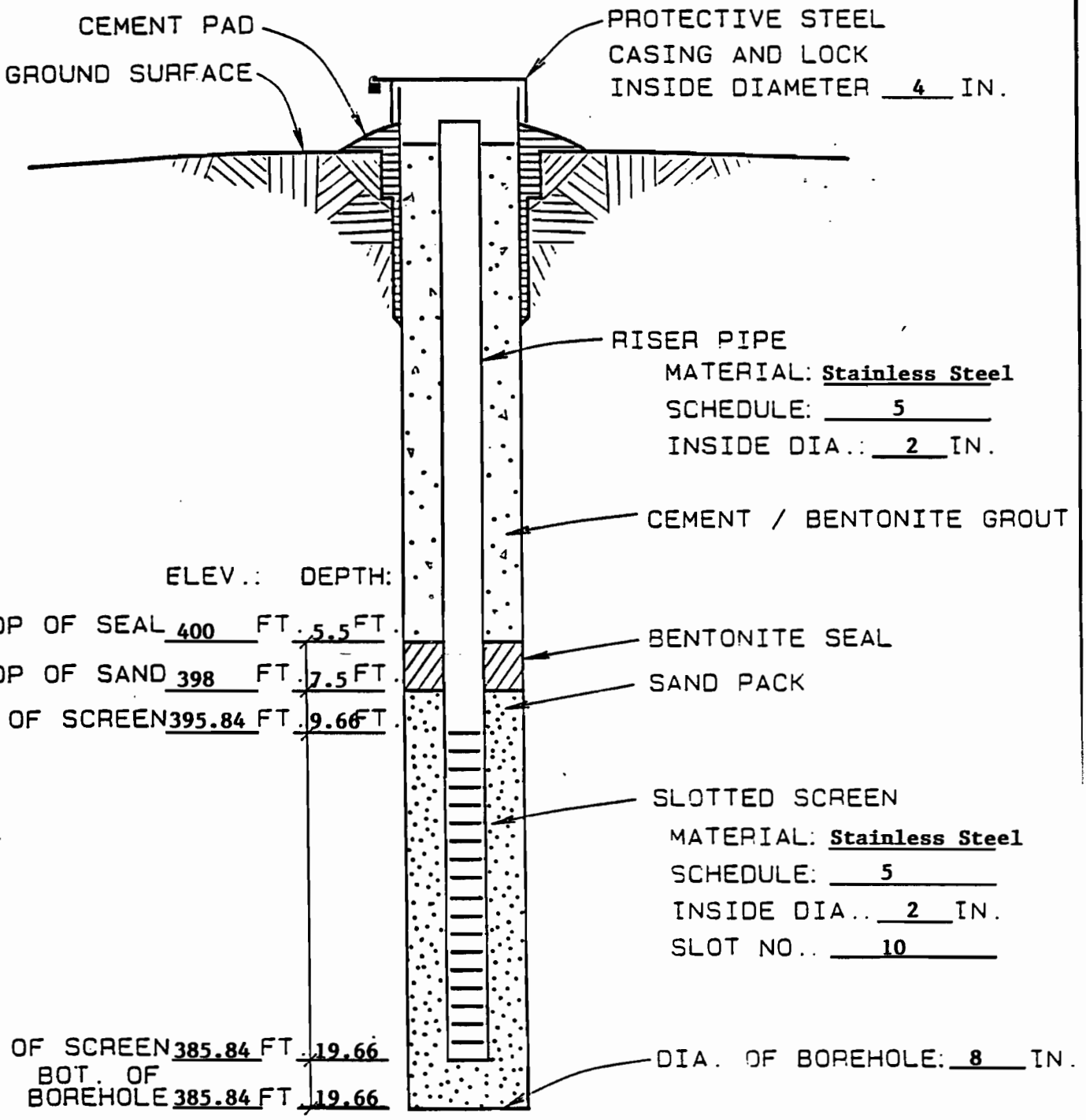
Boring Location: East of MW-6
Ground Elevation:
Dates: Started: 10/31/90 Ended: 10/31/90

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remarks
0	1	0-2'	4-5-6-6	2'/0.8'	11	Brown and reddish brown, moist SILT and very fine to medium SAND, trace fine to medium gravel						
5	2	5-7'	10-15-20-28	2'/0.5'	35	Same as above						
							7.0'					
						Dark red, moist, hard CLAY, some embedded fine to coarse gravel, trace coarse to very coarse sand						
10	3	10-12'	7-11-14-20	2'/1.2'	25							
	4	12-13'	14-75	1'/1'	75+	Greenish brown, saturated, very dense silty very fine to medium SAND interbedded with reddish brown, medium to coarse gravel (12-13')						
	5	14-16'	11-12-13-24	2'/2'	25							
							14.5'					
15						Reddish brown, saturated, medium dense, very fine to medium SAND, little silt At 16', Grades to medium to coarse GRAVEL and COBBLES, little medium to very coarse sand						
	6	16-18'										
	7	18-19.9	17-30-24-50/.4	1.9/1.9'	54							
							19.0'					
20						Dark red, damp, hard CLAY, some embedded coarse to very coarse sand and fine to coarse gravel						
						(Bottom of boring 19.9 ft.)						

PZ2.KJF

FIGURE

Maestri Site Investigation
PZ-2



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

WELL231: P42 L1

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

Report of Boring No. PZ-3
Sheet 1 of 1

Project Location: Maestri Site Investigation
Geddes, New York
Client: Stauffer Management Company

SAMPLER
Type: 2" Split Spoon
Hammer: 140 lbs. Fall: 30"

Ground Water Depth Date
Depth Date
File No.: 3213.004

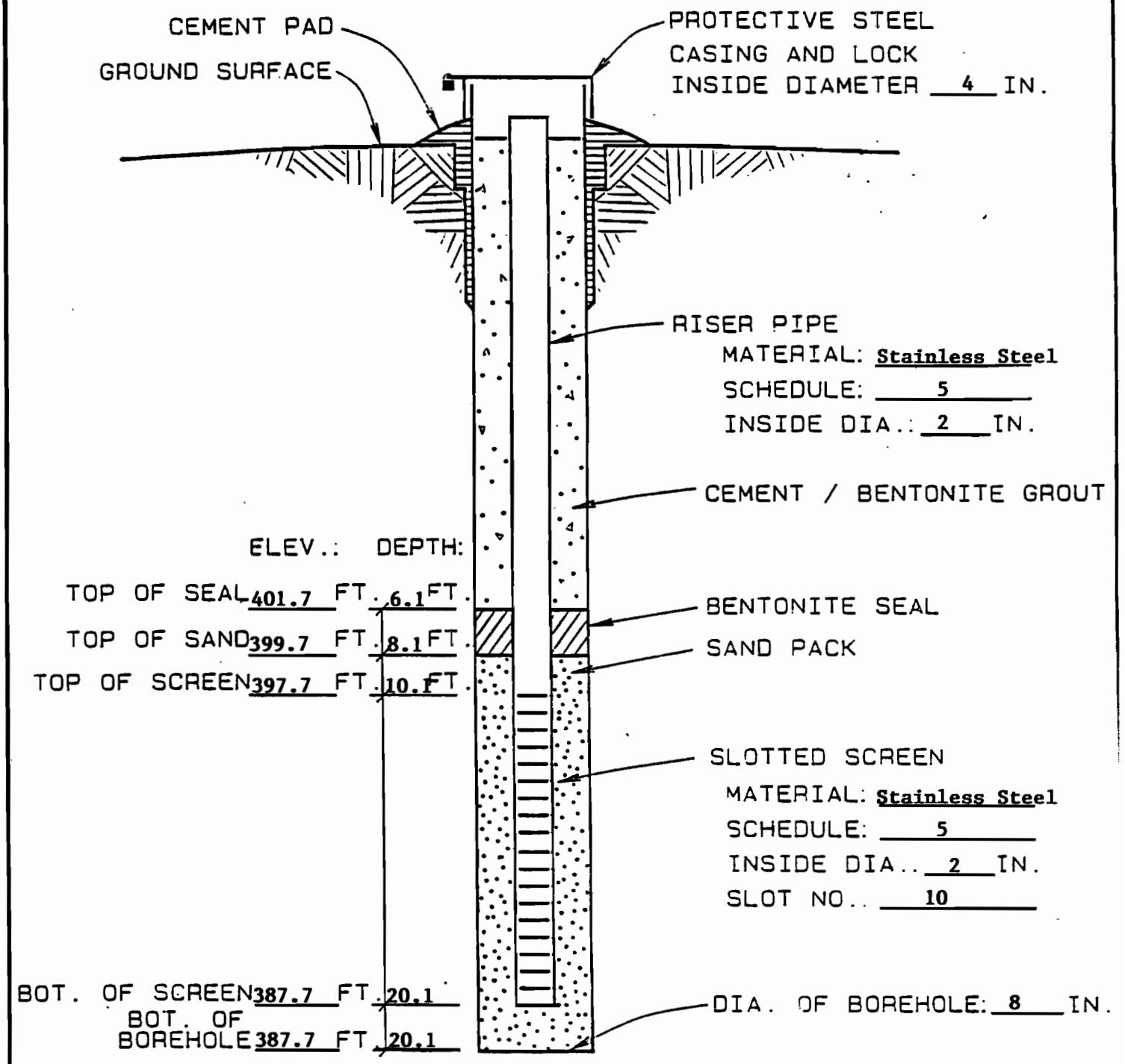
Boring Co.: Parratt-Wolff, Inc.
Foreman: Arnold Chappel
OBG Geologist: Dennis Theoret

Boring Location: Southeast of MW-6
Ground Elevation:
Dates: Started: 10/30/90 Ended: 10/30/90

Depth	Sample No	Sample Depth	Blows /6"	Penetr/ Recovry	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing pH	Field Testing Sp Cond	Field Testing HNU	Remarks
0	1	0-2'	2-2-5-5	2'/0.8'	7	Reddish brown, very moist, stiff SILT, little very fine to medium sand, trace clay						
	2	2-4'	5-7-6-4	2'/0.9'	13							
5	3	5-6.5'	18-28-50	1.5'/1'	78		6.0'					
						Reddish brown, moist, very dense, medium to coarse GRAVEL and very fine to coarse SAND, trace silt						
10	4	10-10.6	27-50/.1	0.6/0.6'		Same as above						
	5	12-12.7	42-50/.2	0.7/0.7'		Reddish brown, very moist, fine to medium SAND, trace coarse to very coarse sand (12.5')						
							14.5'					
15	6	15-17'	15-14-	2'/0'	27	Reddish brown, saturated, medium dense, very fine to medium SAND, little silt						
			13-17									
	7	17-19'	20-22-	2'/2'	47	Same as above						
			27-20									
	8	19-20.5	26-44-	1.5/1.5'	124+	Same as above, little coarse sand, very dense						
20			86/.5									
	9	21-23'	21-37-	2'/1.6'	80		21.0'					
			43-70			Dark, red, damp, hard CLAY, some embedded coarse to very coarse sand and fine to coarse gravel						
						(Bottom of boring 23')						

FIGURE

Maestri Site Investigation
PZ-3



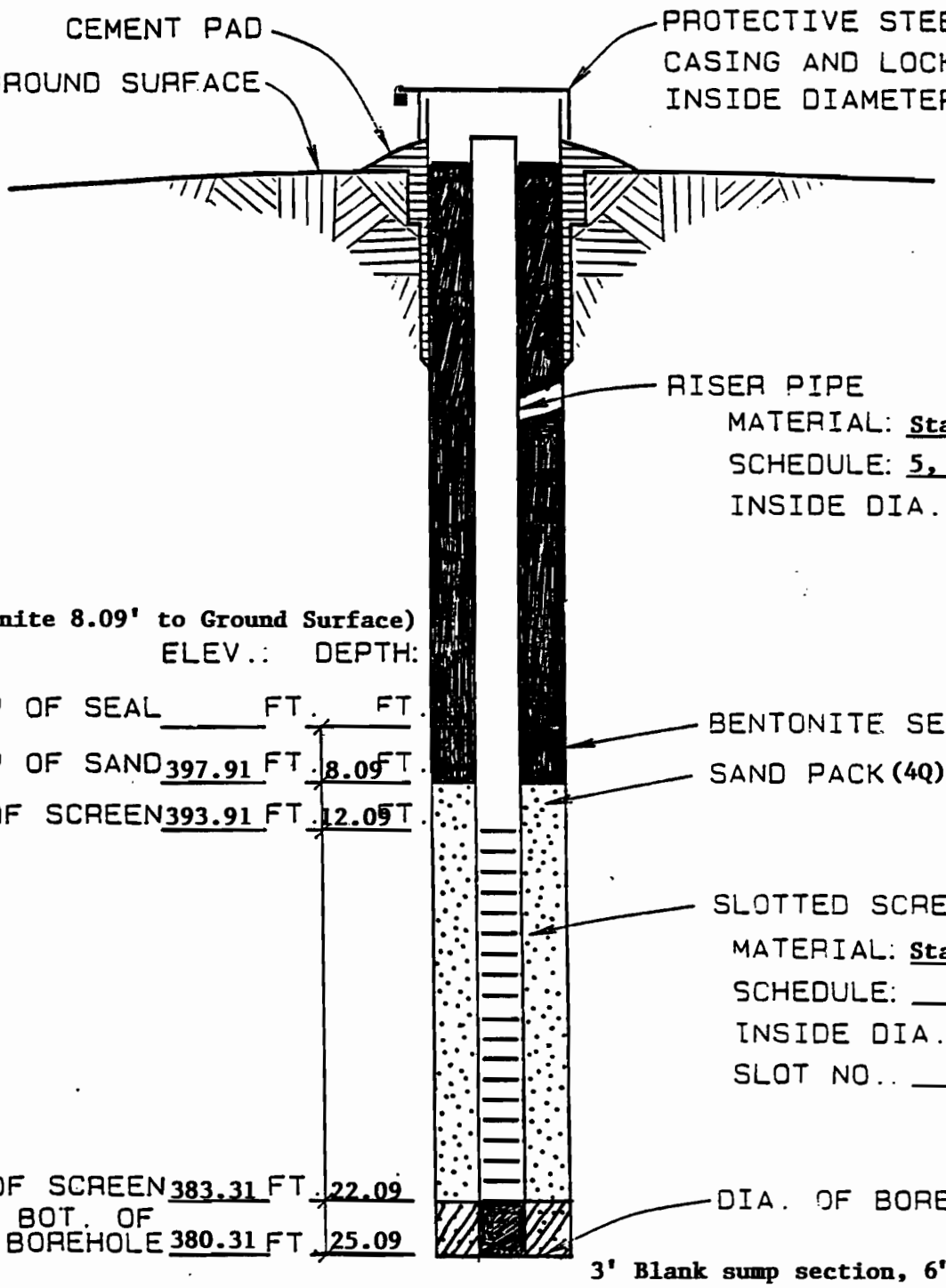
TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

WELL33J R42 L1

FIGURE

Maestri Site Investigation
T-RW1

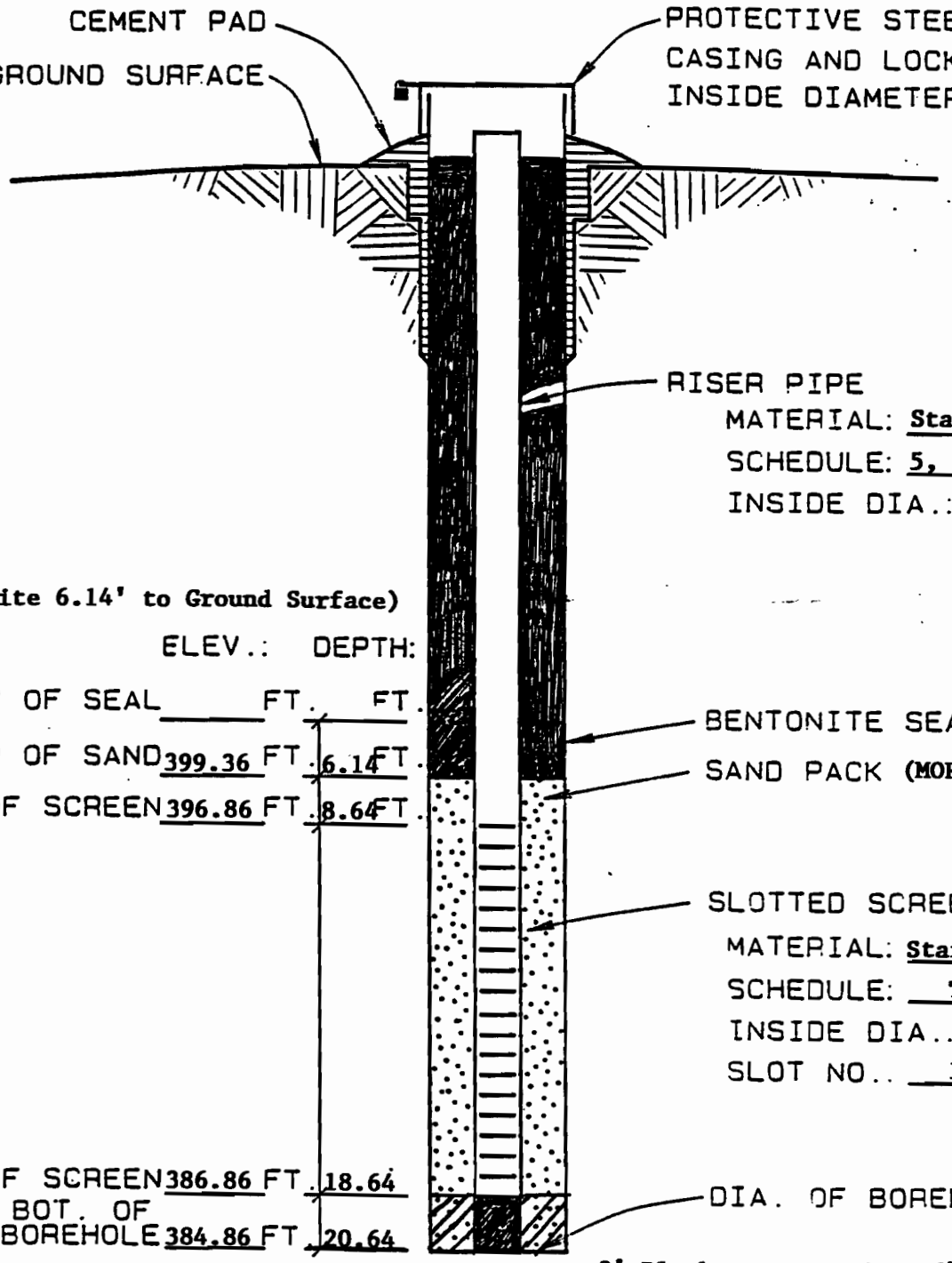


TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

FIGURE

Maestri Site Investigation
T-RW2



TYPICAL OVERBURDEN MONITORING WELL

N.T.S.

APPENDIX B

SOIL BORING LOGS - 1995

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-12
Client: Maestri Site	Sampler: 3" Split Spoon	Page 1 of 2
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Location:
File No.: 5618.005	Fall: 30"	Start Date: 8/2/95 End Date: 8/2/95

Boring Company: Op-Tech Environmental Services, Inc.
Foreman: Steve Laramee
OBG Geologist: Chawn O'Dell

Screen / Riser — Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	6-13	2.0/1.8	35	Pale reddish brown 10YR 5/4, dry, dense, very fine SAND, some silt, little subrounded to angular fine gravel, trace medium subrounded to angular gravel, trace medium and coarse sand, poorly sorted, organics (plant roots).			0.0	0.0
			22-25							
1										
2	2	2-4	11-22	2.0/1.6	54	Pale reddish brown 10YR 5/4 with pale red 10R 6/2 mottling, dry, very dense, fine SAND, some medium subrounded to subangular sand, little coarse sand, litle subrounded to angular gravel, trace medium gravel, poorly sorted.			0.0	0.0
			32-38							
3										
4	3	4-6	12-22	2.0/1.0	44	Pale reddish brown 10YR 5/4, damp, dense, very fine SAND, some silt, some fine sand, little subrounded to angular fine gravel, trace medium subrounded gravel, poorly sorted, moderate odor.			45.2	280.0
			22-21							
5										
6	4	6-8	9-8	2.0/1.6	18	Grayish red 10R 4/2, damp, medium dense, fine SAND, some silt to very fine sand, little subrounded to angular fine to medium gravel, subrounded to subangular fine sand lense at approximately 7.0 to 7.5 ft., slight odor.			8.3	124.0
			10-12							
7										
8	5	8-10	4-4	2.0/1.5	13	Grayish red 10R 4/2, moist, medium dense, subrounded to subangular, fine to medium SAND, some silt, little fine to medium subangular grvel, trace coarse subrounded to subangular gravel, poorly sorted, slight odor.			5.9	98.3
			9-15							
9										
10	6	10-12	8-22	2.0/1.0	55	Grayish red 10R 4/2 with moderate greenish yellow 10Y 7/4, mottling, damp, very dense, fine to medium SAND, some subrounded to angular, fine to coarse gravel, little silt, trace coarse sand, poorly sorted, slight odor.			9.3	108.0
			33-42							
11										
12	7	12-14	22-50/2	0.7/0.5	--	Brownish gray 5YR 4/1 with moderate red 5R 5/4 and yellowish gray 5Y 7/2 mottling (and gravel), wet to saturated, extremely dense, subangular to angular, fine to coarse gravel, some fine to coarse sand, little silt, poorly sorted, slight odor.			18.1	69.0
13										
14	8	14-16	42/70/.4	0.9/0.5	--	Same as above.			16.5	174.0
15										
16	9	16-18	50-80/.4	0.9/0.4	--	Brownish gray 5YR 4/1, saturated, extremely dense, fine to coarse SAND, some subrounded to angular fine to coarse gravel and cobble fragments, little silt, trace clay, poorly sorted, moderate odor.			41.3	161.0
17										

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-12
Client: Maestri Site	Sampler: 3" Split Spoon	Page 2 of 2 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Start Date: 8/2/95
File No.: 5618.005	Fall: 30"	End Date: 8/2/95
Boring Company: Op-Tech Environmental Services, Inc.		Screen / Riser; Grout / Sand Pack / Bentonite
Foreman: Steve Laramee		
OBG Geologist: Chawn O'Dell		

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
18	10	18-20	28-48	2.0/1.2	94	Pale brown 5YR 5/2, saturated, extremely dense, subrounded to angular, fine to coarse GRAVEL, some subrounded to subangular, medium to coarse gravel, little fine sand, trace silt, poorly sorted, slight odor.			8.1	68.2
			46-38							
19										
20	11	20-22	29-71	2.0/1.0	109	Pale brown 5YR 5/2, saturated, extremely dense, subrounded to angular, medium to coarse GRAVEL, some fine gravel and angular cobble fragments, little medium to coarse sand, trace silt to fine sand, poorly sorted, slight odor.			7.3	22.0
			38-42							
21										
22	12	22-24	28-40	2.0/1.0	60	Pale brown 5YR 5/2 to brownish gray 5YR 4/1, saturated, very dense, subrounded to subangular, medium to coarse GRAVEL, some subrounded to subangular medium to coarse sand and fine gravel, little fine sand, trace silt, poorly sorted, no apparent odor.			1.8	3.4
			20-19							
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-13
Client: Maestri Site	Sampler: 3" Split Spoon	Page 1 of 1
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Location:
File No.: 5618.005	Fall: 30"	Start Date: 8/3/95 End Date: 8/3/95
Boring Company: Op-Tech Environmental Services, Inc. Foreman: Steve Laramee OBG Geologist: Chawn O'Dell		Screen / Riser; Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing: Over Split Spoon (ppm)	Field Testing: Head Space (ppm)
0	1	0-2	NA-Grab	NA	NA	Light brown 5 YR 6/4, dry, very fine SAND, some silt, little subrounded to subangular, fine to medium gravel, trace organics (plant roots), poorly sorted.			0.0	0.0
1										
2	2	2-4	NA-Grab	NA	NA	Grayish brown 5YR 3/2, dry, fine to medium SAND, some very fine sand, little silt, little subrounded to subangular, fine to medium gravel, poorly sorted.			0.0	0.0
3										
4	3	4-6	3-4	2.0/1.4	7	Light brown 5YR 5/6 and modrate brown 5Y 4/4 mottling, moist, loose SILT, some subrounded to subangular fine to medium sand, little subrounded to subangular fine gravel, trace clay, poorly sorted.			0.0	0.0
			3-3							
5										
6	4	6-8	2-3	2.0/1.2	6	Dark yellowish brown 10YR 4/2 and dark yellowish orange 10YR 6/6 and pale olive 10Y 6/2 mottling, very moist, loose SILT to fine SAND, some medium to coarse sand, little subrounded to subangular, fine to medium gravel, trace coarse subrounded gravel.			0.0	0.0
			3-3							
7										
8	5	8-10	3-2	2.0/1.3	6	Same as above.			0.0	0.0
			4-5							
9										
10	6	10-12	3-4	2.0/1.0	9	Light brown 5YR 5/6 and dark yellowish orange 10YR 6/6 mottling, saturated, loose, subrounded to subangular, fine to coarse SAND, some subrounded to angular, fine to medium gravel, little subrounded to angular, coarse gravel, trace silt, poorly sorted.			0.0	0.0
			5-4							
11										
12	7	12-14	45/0.4	0.4/0.3	--	Very little recovery - moderate brown 5YR 4/4, saturated, extremely dense, cobbles, some subrounded to angular, fine to coarse gravel, little fine to coarse sand, trace silt, poorly sorted.			0.0	0.0
13										
14	8	14-16	50/0.3	0.3/0.3	--	Moderate brown 5YR 4/4, saturated, extremely dense, cobbles and gravel in spoon, little silt to coarse sand, poorly sorted.			0.0	0.0
15										
16	9	16-18	50/0.2	0.2/0.2	--	Little recovery, broken cobble fragments (angular, fine to coarse).			0.0	0.0
17										
18	10	18-19	50/0.1	0.1/0.1	--	Very little recovery. Angular cobble fragments.			0.0	0.0
19	11	19-20	50/0.2	0.2/0.2	--	Very little recovery. Angular coarse/large cobble fragments.			0.0	0.0
20										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-14
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Location:
File No.: 5618.005	Fall: 30"	Start Date: 8/3/95 End Date: 8/3/95
Boring Company: Op-Tech Environmental Services, Inc. Foreman: Steve Laramee OBG Geologist: Chawn O'Dell		Screen / Riser Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	3-8	2.0/1.6	18	Moderate brown 5YR 4/4, dry, medium dense SILT, some fine sand, little subangular, fine to medium gravel, trace medium to coarse sand, poorly sorted.			0.0	0.0
			10-14							
1										
2	2	2-4	3-7	2.0/1.7	15	Light brown 5YR 5/6, damp, medium dense, fine to medium SAND, well sorted.			0.0	0.0
			8-14							
3										
4	3	4-6	7-10	2.0/1.2	24	Moderate brown 5YR 5/6, damp, medium dense, fine to medium SAND, some silt, little subrounded to subangular, fine gravel, poorly sorted.			0.0	0.0
			14-19							
5										
6	4	6-8	10-18	2.0/1.3	38	Moderate brown 5YR 4/4, damp, dense, fine SAND, some angular, fine to coarse gravel (cobble fragments), little silt, trace subrounded, medium to coarse sand, poorly sorted.			0.0	0.0
			20-32							
7										
8	5	8-10	9-18	1.9/1.9	81	Pale brown 5YR 5/2, damp, exremely dense, fine to medium SAND, some subangular to angular gravel, little medium to coarse sand, trace silt, poorly sorted.			0.0	0.0
			63-61/.4							
9										
10	6	10-12	2-40	1.8/1.2	96	Moderate brown 5 YR 3/4, damp, extremely dense, fine to medium SAND, some angular, fine to coarse gravel, little subrounded to subangular coarse sand, trace silt, poorly sorted.			0.0	0.0
			56-42/.3							
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

The borehole was back filled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-15
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Location:
File No.: 5618.005	Fall: 30"	Start Date: 8/3/95 End Date: 8/3/95
Boring Company: Op-Tech Environmental Services, Inc. Foreman: Steve Laramee OBG Geologist: Chawn O'Dell		Screen / Riser Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	3-4	2.0/1.3	9	Pale yellowish brown 10YR 6/2, dry, loose, fine to very fine SAND, some silt, little angular to subangular, fine to medium gravel, trace organics (plant roots).			0.0	0.0
			5-4							
1										
2	2	2-4	4-5	2.0/1.6	11	Moderate brown 5YR 4/4, dry, medium dense, fine SAND, some subrounded to subangular, medium sand, little silt, well sorted.			0.0	0.0
			6-5							
3										
4	3	4-6	3-3	2.0/1.6	6	Pale brown 5YR 5/2, moist, loose, subrounded to subangular, fine SAND, some very fine sand to silt, little subrounded to subangular, fine gravel, trace medium to coase sand, trace clay, poorly sorted.			0.0	0.0
			3-5							
5										
6	4	6-8	4-7	2.0/1.5	14	Dark reddish brown 10R 3/4, moist, medium dense, fine SAND, some very fine sand to silt, little subangular to angular, fine gravel, trace subrounded medium gravel, trace medium to coarse sand, trace clay, poorly sorted.			0.0	0.0
			7-9							
7										
8	5	8-10	3-4	2.0/1.9	7	Same as above to 9.0 ft., then pale yellowish brown 10YR 6/2, saturated, loose, fine sand, some very fine sand, little silt, well sorted.			0.0	0.0
			3-5							
9										
10	6	10-12	6-7	2.0/0.0	15	No recovery. Large pieces gravel lodged in spoon tip.			NA	NA
			8-6							
11										
12	7	12-14	5-5	2.0/1.8	11	Pale yellowish brown 10YR 6/2, saturated, medium dense, subrounded to subangular, fine SAND, some very fine sand, little silt, well sorted.			0.0	0.0
			6-5							
13										
14										
15										
16										
17										
18										
19										
20										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-16
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Start Date: 8/3/95
File No.: 5618.005	Fall: 30"	End Date: 8/3/95
Boring Company: Op-Tech Environmental Services, Inc. Foreman: Steve Laramee OBG Geologist: Chawn O'Dell		Screen / Riser; Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	15-16	2.0/0.2	28	Moderate reddish brown 10R 4/6, dry, medium dense, fine to medium SAND, some silt, little subangular to angular gravel, poorly sorted.			0.0	0.0
			12-11							
1										
2	2	2-4	5-6	2.0/1.9	12	Moderate yellowish brown 10YR 5/4, damp, medium dense, fine SAND, little very fine sand to silt, trace subrounded to subangular gravel, poorly sorted.			0.0	0.0
			6-8							
3										
4	3	4-6	2-5	2.0/2.0	10	Pale brown 5YR 5/2, moist, medium dense, fine SAND, little very fine sand to silt, well sorted.			0.0	0.0
			5-5							
5										
6	4	6-8	4-5	2.0/1.8	9	Pale yellowish brown 10YR 6/2 and moderate yellowish brown 10YR 4/2, moist to wet, loose, fine SAND, some very fine sand, little silt.			0.0	0.0
			4-6							
7										
8	5	8-10	WOH-WOH	2.0/1.6	2	Light brownish gray 5YR 6/1, wet, very loose, medium SAND, some fine sand silt lenses from approximately 8.5 to 9.2 ft., well sorted. (slight odor)			5.9	26.6
			WOH-2							
9										
10	6	10-12	4-4	2.0/1.8	12	Dark yellowish brown 10YR 4/2, moist, medium dense, subrounded to subangular, fine to medium SAND, little very fine sand and silt, well sorted. (slight odor)			3.2	16.8
			8-12							
11										
12	7	12-14	9-22	2.0/0.9	44	Dark yellowish brown 10YR 4/2, saturated, dense SILT to very fine SAND, little subrounded to subangular, fine to medium sand, trace caly, well sorted. (slight odor)			2.4	11.6
			22-26							
13										
14	8	14-16	10-15	2.0/1.8	36	Moderate yellowish brown 10YR 4/2, dense, fine SAND, some silt, little subrounded to subangular, medium sand, well sorted. (slight odor)			1.9	15.4
			21-24							
15										
16	9	16-18	9-18	2.0/1.9	38	Dark yellowish brown 10YR 4/2, saturated, dense, subrounded to subangular, fine to medium SAND, little silt, poorly sorted.			0.0	5.9
			20-20							
17										
18	10	18-20	8-10	2.0/2.0	22	Dark yellowish brown 10YR 4/2, saturated, medium dense, fine SAND, some subrounded to subangular medium sand, little silt and clay, laminated clay seam from 19.0 to 19.3 ft., well sorted.			0.0	0.0
			12-15							
19										
20										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-17
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Start Date: 8/4/95
File No.: 5618.005	Fall: 30"	End Date: 8/4/95
Boring Company: Op-Tech Environmental Services, Inc.		Screen / Riser; Grout / Sand Pack / Bentonite
Foreman: Steve Laramee		
OBG Geologist: Chawn O'Dell		

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing: Over Split Spoon (ppm)	Field Testing: Head Space (ppm)
0	1	0-2	6-6	2.0/1.7	14	Light brown 5YR 6/4, dry, medium dense SILT,			0.0	0.0
			8-10			some very fine sand, little subrounded to				
1						subangular medium to coarse sand, trace				
						medium subrounded gravel, trace organics				
						(plant roots), poorly sorted.				
2	2	2-4	4-6	2.0/0.8	16	Moderate brown 5 YR 4/4, dry, medium dense,			0.0	0.0
			10-11			very fine SAND, some silt, little fine sand,				
3						trace subrounded fine gravel, poorly sorted.				
4	3	4-6	6-8	2.0/1.3	16	Same as above to approximately 5.0 ft., then			0.0	0.0
			8-12			moderate yellowish brown 10YR 5/4, damp,				
5						medium dense, fine SAND, little very fine				
						sand to silt.				
6	4	6-8	4-11	1.9/1.5	56	Moderate yellowish brown 10YR 5/4 to pale			0.0	0.0
			44-50/.4			reddish brown 10R 5/4 to pale olive 10Y 6/2,				
7						damp, very dense SILT to fine SAND, some				
						medium sand, little subangular coarse sand				
						and fine gravel, trace medium subrounded to				
						subangular gravel, porly sorted.				
8	5	8-10	9-21	1.8/1.8	59	Pale brown 5YR 5/2, damp, very dense, fine to			0.0	1.2
			38-30/.3			medium SAND, some subrounded to subangular,				
9						coarse sand, little subangular to angular,				
						fine to coarse gravel and cobble fragments,				
						little silt, poorly sorted.				
10	6	10-12	NA	NA	–	No spoon collected. Augered through a boulder			NA	NA
						10 12.0 ft.				
11										
12	7	12-14	18-10	2.0/1.5	24	Grayish brown 5YR 3/2, moist, medium dense,			1.5	35.9
			14-17			subrounded to subangular, medium to coarse				
13						SAND, some fine sand, little subangular to				
						angular, fine to medium gravel, trace silt,				
						poorly sorted.				
14	8	14-16	19-20	1.8/1.5	50	Grayish red 5R 4/2, saturated, very dense,			4.3	53.1
			30-50/.3			subrounded to subangular, medium SAND, some				
15						coarse sand, little fine sand, trace silt,				
						poorly sorted moderate odor.				
16	9	16-18	40-67	2.0/1.5	107	Moderate brown 5YR 4/4, light brown 5YR 5/6			6.2	25.6
			30-27			and pale olive 10Y 6/2 mottling, saturated,				
17						extremely dense, subrounded to angular,				
						coarse SAND and fine GRAVEL, some fine to				
						medium sand, little silt, trace clay, trace				
						subrounded to angular, medium gravel, poorly				
						sorted. (moderate odor).				
18	10	18-20	35-42	2.0/1.6	93	Same as above, slight odor.			3.5	15.6
			51-47							
19										
20	11	20-22	17-22	2.0/2.0	60	Pale reddish brown 10R 5/4, moist, very dense			0.0	0.8
			38-66			SILT, some fine to medium sand, little				
21						subrounded to subangular coarse sand and fine				
						to medium gravel, trace clay, trace coarse				
						subrounded gravel, poorly sorted. (Till)				

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-18
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Start Date: 8/4/95
File No.: 5618.005	Fall: 30"	End Date: 8/4/95
Boring Company: Op-Tech Environmental Services, Inc.		Screen / Riser; Grout / Sand Pack / Bentonite
Foreman: Steve Laramee		
OBG Geologist: Chawn O'Dell		

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	6-4	2.0/2.0	8	Moderate yellowish brown 10YR 5/4, dry, loose, fine SAND, little silt, trace medium sand, well sorted.			0.0	0.0
			4-3							
1										
2	2	2-4	4-2	2.0/1.9	5	Same as above.			0.0	0.0
			3-2							
3										
4	3	4-6	1-2	2.0/1.6	4	Moderate yellowish brown 10YR 5/4, moist, very loose, fine SAND, little silt, well sorted.			0.0	0.0
			2-3							
5										
6	4	6-8	2-3	2.0/1.7	6	Dark yellowish brown 10YR 4/2, loose, fine to medium SAND, some silt, trace subrounded to subangular fine gravel, poorly sorted.			0.0	0.0
			3-4							
7										
8	5	8-10	2-3	2.0/1.9	13	Pale yellowish brown 10YR 6/2, to dark yellowish brown 10YR 4/2, moist to wet, medium dense, fine to medium SAND, little silt, trace subangular fine gravel, well sorted, slight odor.			1.9	10.4
			10-14							
9										
10	6	10-12	14-15	2.0/2.0	32	Pale brown 5YR 5/2, moist to wet, dense, subrounded to subangular, medium SAND, some fine sand, little silt, well sorted, strong odor.			77.5	12.7
			17-18							
11										
12	7	12-14	4-10	2.0/1.9	22	Moderate brown 5YR 4/4, wet, medium dense, subrounded to subangular, medium SAND, little fine sand, trace silt, well sorted, moderate odor.			12.8	273.0
			12-15							
13										
14	8	14-16	16-18	2.0/2.0	34	Same as above.			14.2	269.0
			16-17							
15										
16	9	16-18	14-25	2.0/1.4	39	Moderate brown 5YR 4/4, saturated, dense, subrounded to subangular, medium to coarse SAND, some fine sand, little subrounded to subangular, fine gravel, poorly sorted, slight odor.			6.7	257.0
			14-15							
17										
18	10	18-20	15-21	2.0/1.8	48	Same as above to 19.7 ft., then Till, pale reddish brown 10R 5/4, moist, dense SILT, some fine to medium sand, little subrounded to subangular coarse sand and fine to medium gravel, trace clay, trace coarse subrounded gravel, poorly sorted.			3.2	7.3
			27-19							
19										
20										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-19
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Location:
File No.: 5618.005	Fall: 30"	Start Date: 8/7/95 End Date: 8/7/95
Boring Company: Op-Tech Environmental Services, Inc. Foreman: Steve Laramee OBG Geologist: Chawn O'Dell		Screen / Riser Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	3-6	2.0/1.9	13	Moderate brown 5YR 4/4, dry, medium dense, veery fine SAND, some silt, little fine sand, well sorted.			0.0	0.0
			7-8							
1										
2	2	2-4	8-8	2.0/1.7	16	Same as above, trace angular fine gravel.			0.0	0.0
			8-7							
3										
4	3	4-6	3-2	2.0/1.6	5	Pale brown 5YR 5/2, wet, loose, fine SAND, some very fine sand, little silt, well sorted.			0.0	0.0
			3-5							
5										
6	4	6-8	4-5	2.0/1.4	12	Moderate brown 5YR 4/4, wet, medium dense, subrounded to subangular, medium SAND, some fine sand, little very fine sand to silt, poorly sorted.			0.0	0.0
			7-5							
7										
8	5	8-10	1-1	2.0/1.9	2	Grayish brown 5YR 3/2, wet, very loose, subrounded to subangular, medium SAND, little fine sand, trace silt, well sorted.			0.0	0.0
			1-1							
9										
10	6	10-12	4-4	2.0/1.1	10	Grayish brown 5YR 3/2, wet, medium dense, subrounded to subangular, medium SAND, little fine sand to silt, trace subrounded to subangular, coarse sand, poorly sorted.			0.0	0.0
			6-8							
11										
12	7	12-14	5-7	2.0/2.0	15	Grayish brown 5YR 3/2, wet, medium dense, subrounded to subangular, medium SAND, little fine sand, trace silt, trace subrounded to subangular, coarse sand, poorly sorted.			0.0	0.0
			8-10							
13										
14	8	14-16	8-9	2.0/2.0	17	Moderate brown 5YR 4/4, saturated, medium dense, medium SAND, some fine sand, little silt, trace subrounded to subangular, coarse sand, poorly sorted.			0.0	0.0
			8-10							
15										
16	9	16-18	25-40/.2	2.0/2.0	--	Same as above.			0.0	0.0
17										
18	10	18-19	100/0.4	0.4/0.4	--	Same as above to 18.2 ft., then cobble/boulder fragments.			0.0	0.0
19	11	19-20	43-50/.2	0.7/0.6	--	Auger to 19.0 ft. refusal. Drove the split spoon. Very fine, mostly through blow by.			0.0	0.0
20						Pale green 10G 6/2, moist, extremely dense cobble fragments, (angular) and medium to				
21						coarse subrounded to subangular SAND,				
						weathered (boulders/cobble).				

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-20
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Start Date: 8/7/95
File No.: 5618.005	Fall: 30"	End Date: 8/7/95

Boring Company: Op-Tech Environmental Services, Inc.
Foreman: Steve Laramee
OBG Geologist: Chawn O'Dell

Screen / Riser | Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	3-3	2.0/1.8	8	Light brown 5YR 6/4, dry, loose, very fine SAND, some silt, little fine sand, well sorted, little organics (plant roots).			0.0	0.0
			5-6							
1										
2	2	2-4	6-6	2.0/2.0	14	Moderate brown 5YR 4/4, damp, medium dense, subrounded to subangular, fine to medium sand, some silt, well sorted.			0.0	0.0
			8-9							
3										
4	3	4-6	2-3	2.0/1.7	6	Moderate brown 5YR 3/4, damp to wet, loose, fine SAND, some very fine sand to silt, well sorted.			0.0	0.0
			3-2							
5										
6	4	6-8	4-6	2.0/1.5	12	Moderate brown 5YR 4/4, damp, medium dense, medium SAND, some fine sand, little silt, well sorted.			0.0	0.0
			6-7							
7										
8	5	8-10	3-2	2.0/2.0	5	Moderate brown 5YR 4/4, damp, loose, subrounded to subangular, medium SAND, some fine sand, little silt, poorly sorted.			0.0	0.0
			3-2							
9										
10	6	10-12	4-9	2.0/1.9	26	Moderate brown 5YR 3/4, damp, medium dense, medium SAND, some fine sand, little subrounded to subangular, coarse sand, poorly sorted.			0.0	0.0
			17-30							
11										
12	7	12-14	19-25	2.0/1.9	51	Same as above to approximately 13.0 ft., then SILT, some fine to coarse sand, little subrounded to subangular, fine to medium gravel, poorly sorted (Till).			0.0	0.0
			26-24							
13										
14	8	14-16	44-51	2.0/2.0	91	Dark reddish brown 10R 3/4, damp to wet, extremely dense SILT, some fine to coarse sand, little subrounded to subangular, fine to medium gravel, trace subrounded, coarse gravel, poorly sorted (Till).			0.0	0.0
			40-30							
15										
16										
17										
18										
19										
20										
21										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-21
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Start Date: 8/4/95
File No.: 5618.005	Fall: 30"	End Date: 8/4/95
Boring Company: Op-Tech Environmental Services, Inc.		Screen = \ Grout
Foreman: Steve Laramee		Riser ▢ ▒ Sand Pack
OBG Geologist: Chawn O'Dell		■ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	5-7	2.0/0.2	23	Poor recovery. Moderate yellowish brown 10YR			0.0	0.0
			16-15			5/4, dry, medium dense, subangular, medium to				
1						coarse gravel, little silt to fine sand,				
						poorly sorted.				
2	2	2-4	12-12	2.0/1.5	27	Moderate brown 5YR 4/4, dry, medium dense,			0.0	0.0
			15-16			fine SAND, some medium sand, little silt,				
3						little fine to medium angular gravel.				
4	3	4-6	8-12	2.0/1.2	53	Pale yellowish brown 10YR 6/2, damp, very			0.0	0.0
			41-38			dense, fine to medium SAND, some fine to				
5						medium angular gravel (cobble fragments),				
						little silt, trace coarse subangular to				
						angular sand, poorly sorted.				
6	4	6-8	45-50	1.3/1.0	100+	Pale yellowish brown 10YR 6/2, damp,			0.0	0.0
			50/0.3			extremely dense SILT to fine SAND, some				
7						angular, fine to medium gravel, little medium				
						to coarse sand, poorly sorted.				
8	5	8-10	5.0/0.4	0.4/0.0	--	No recovery. Cobbles/boulder. Boney			NA	NA
						augering.				
9										
10	6	10-12	50/0.2	0.2/0.0	--	No recovery. Cobbles/boulder.			NA	NA
11										
12	7	12-14	17-50	2.0/1.2	80	Pale yellowish brown 10YR 6/2, moist,			0.0	0.0
			30-22			extremely dense, fine SAND, some fine to				
13						coarse angular gravel, little medium to				
						coarse sand, poorly sorted.				
14	8	14-16	19-32	2.0/1.5	73	Grayish brown 5YR 3/2, saturated, very dense,			1.2	2.4
			41-48			subrounded to subangular, medium to coarse				
15						SAND, some angular, fine to medium gravel,				
						little silt, poorly sorted.				
16	9	16-18	8-7	2.0/1.3	17	Moderate brown 5YR 3/4, saturated, medium			0.7	1.2
			10-9			dense, medium SAND, some subrounded to				
17						subangular coarse sand, little silt to fine				
						sand, poorly sorted.				
18	10	18-20	14-12	2.0/1.9	39	Same as above to 19.5 ft., then fine to very			0.0	0.0
			27-45			fine sand.				
19										
20	11	20-22	15-14	2.0/1.5	30	Same as above.			0.0	0.0
			16-21							
21										
22	12	22-24	10-8	2.0/2.0	20	Pale reddish brown 10YR 5/4, moist, medium			0.0	0.0
			12-12			dense, SILT, some fine to medium SAND, little				
23						subrounded to subangular, coarse sand to				
						medium gravel, trace clay, trace coarse,				
						subrounded gravel, poorly sorted.				

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-22
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Start Date: 8/4/95
File No.: 5618.005	Fall: 30"	End Date: 8/4/95
Boring Company: Op-Tech Environmental Services, Inc. Foreman: Steve Laramee OBG Geologist: Chawn O'Dell		Screen = \ Grout Riser ▒ Sand Pack ■ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	3-8	2.0/2.0	18	Moderate yellowish brown 10YR 5/4, dry,			0.0	0.0
			10-9			medium dense, very fine SAND, some silt,				
1						little fine sand, trace organics (plant				
						roots), sell sorted.				
2	2	2-4	11-8	2.0/1.8	15	Light brown 5YR 5/6, damp, medium dense, fine			0.0	0.0
			7-9			SAND, some very fine sand, little silt, well				
3						sorted.				
4	3	4-6	4-5	2.0/2.0	8	Moderate brown 5YR 4/4, damp, loose, fine to			0.0	0.0
			3-6			medium sand, little silt.				
5										
6	4	6-8	3-5	2.0/1.9	8	Light brown 5YR 5/6, moist, loose, fine SAND,			0.0	0.0
			3-3			little medium sAND, trace silt, well sorted.				
7										
8	5	8-10	3-1	2.0/2.0	2	Moderate brown 5YR 3/4, moist, very loose,			0.0	0.0
			1-2			subrounded to subangular, medium SAND, little				
9						fine sand, trace very fine sand to silt, well				
						sorted.				
10	6	10-12	2-4	2.0/1.8	7	Moderate brown 5YR 3/4, moist, loose,			0.0	0.0
			3-2			subrounded to subangular, medium SAND, some				
11						fine sand, little subrounde to subangular,				
						coarse sand, trace very fine sand to silt,				
						poorly sorted.				
12	7	12-14	1-2	1.9/1.8	12	Moderate brown 5YR 3/4, wet, medium dense,			0.0	0.0
			10-50/.5			medium SAND, some subrounded to subangular,				
13						coarse sand, little fine sand to silt, trace				
						clay, poorly sorted.				
14	8	14-16	33-85/.4	0.9/0.5	--	Light brown 5YR 6/4, damp, extremely dense,			0.0	0.0
						subangular to angular, fine to medium GRAVEL				
15						and cobble fragments, little silt to fine				
						sand, poorly sorted.				
16	9	16-18	18-33	2.0/0.7	51	Light brownish gray 5YR 6/1, damp, very			0.0	0.0
			28-53			dense, angular, fine to coarse GRAVEL and				
17						cobble fragments.				
18	10	18-20	36-26	1.8/0.9	65	Greenish gray 5YR 6/1, damp, very dense SILT,			0.0	0.0
			39-50/.3			some angular, fine to medium gravel.				
19										
20										
21										
22										
23										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-23
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	
Boring Company: Op-Tech Environmental Services, Inc. Foreman: Steve Laramee OBG Geologist: Chawn O'Dell		Screen / Riser; Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing: Over Split Spoon (ppm)	Field Testing: Head Space (ppm)
0	1	0-2	9-13	2.0/1.5	24	Moderate brown 5YR 4/4, dry, medium dense, very fine SAND, some silt, little subangular, fine gravel, trace organics (plant roots), poorly sorted.			0.0	0.0
			11-13							
1										
2	2	2-4	6-7	2.0/1.6	13	Moderate brown 5YR 3/4, damp, medium dense, subrounded to subangular, fine to medium SAND, some silt, little subangular to angular, fine gravel, poorly sorted.			0.0	0.0
			6-8							
3										
4	3	4-6	7-10	2.0/2.0	21	Dark reddish brown 10YR 3/4, damp, medium dense SILT, some fine to coarse sand, little subrounded to subangular fine to medium gravel, trace clay, poorly sorted.			0.0	0.0
			11-10							
5										
6	4	6-8	11-13	2.0/2.0	28	Moderate brown 5YR 3/4 and dark yellowish orange 10YR 6/6 mottling, moist, medium dense, subrounded to subangular, medium to coarse SAND, some fine sand, little angular, fine gravel, trace subrounded, medium gravel, poorly sorted.			0.0	0.0
			15-10							
7										
8	5	8-10	50/0.1	0.1/0.1	–	Very little rocovery. Split spoon refused at approximately 8.1 ft., moderate brown 5YR 4/4, damp, extremely dense, subrounded to subangular, fine to medium gravel, little silt to medium sand, trace cobble fragments.			0.0	0.0
9										
10	6	10-12	72/0.4	0.4/0.3	–	Moderate brown 5YR 4/4, damp extremely dense SILT, some subrounded to subangular, fine to coarse gravel, little fine to coarse sand, trace angular cobble fragments.			0.7	0.3
11										
12	7	12-14	4-52	2.0/1.3	78	Moderate brown 5YR 3/4, moist, very dense, subrounded to subangular, medium to coarse SAND, some subangular medium to coarse gravel, little fine gravel, trace silt and clay, poorly sorted (slight odor).			1.9	3.3
			26-24							
13										
14	8	14-16	25-23	2.0/2.0	47	Moderate brown 5YR 3/4, wet to saturated, very dense, subrounded to subangular, medium to ocarse SAND, little fine sand, trace silt, poorly sorted, moderate odor.			5.4	34.5
			24-55							
15										
16										
17										
18										
19										
20										
21										
22										
23										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-24
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1 Location:
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Start Date: 8/7/95
File No.: 5618.005	Fall: 30"	End Date: 8/7/95

Boring Company: Op-Tech Environmental Services, Inc.
Foreman: Steve Laramee
OBG Geologist: Chawn O'Dell

Screen / Riser | Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	3-4	2.0/1.3	8	Pale brown 5YR 5/2, dry, loose SILT, some fine to very fine sand, well sorted, little organics (plant roots).			0.0	0.0
			4-6							
1										
2	2	2-4	6-8	2.0/0.4	18	Dark yellowish brown 10YR 4/2, damp, medium dense SILT and subangular to angular fine to medium GRAVEL, little fine to medium sand, poorly sorted.			0.0	0.0
			10-12							
3										
4	3	4-6	19-14	2.0/1.4	25	Moderate brown 5YR 4/4, moist, medium dense SILT to fine SAND, little medium sand, trace subangular fine to medium gravel, poorly sorted.			0.0	0.0
			11-10							
5										
6	4	6-8	9-9	2.0/1.3	13	Moderate brown 5YR 4/4, moist, medium dense, subrounded to subangular, medium to coarse SAND, some fine sand little subnagular to angualr fne to medium gravel.			0.0	0.0
			4-4							
7										
8	5	8-10	4-6	2.0/1.2	13	Moderate brown 5YR 4/4, moist to wet, medium dense, subrounded to subangualr, medium to coarse SAND, some sugangular to angular fine to medium gravel, little fine sand to silt, poorly sorted.			0.0	0.0
			7-6							
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										

The borehole was backfilled with soil cuttings.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-25
Client: Maestri Site	Sampler: 2" Split Spoon	Page 1 of 1
Proj. Loc: Lakeland, New York	Hammer: 140 lbs.	Location:
File No.: 5618.005	Fall: 30"	Start Date: 8/7/95
		End Date: 8/7/95

Boring Company: Op-Tech Environmental Services, Inc.
Foreman: Steve Laramee
OBG Geologist: Chawn O'Dell

Screen / Riser — Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing Over Split Spoon (ppm)	Field Testing Head Space (ppm)
0	1	0-2	2-5	2.0/1.5	10	Pale brown 5YR 5/2, dry, medium dense SILT to fine SAND, little medium sand, little organic (plant roots).			0.0	0.0
			5-3							
1										
2	2	2-4	2-4	2.0/1.9	8	Pale brown 5YR 5/2, dry to damp, loose, fine SAND, some silt, well sorted.			0.0	0.0
			4-7							
3										
4	3	4-6	2-3	2.0/1.9	7	Moderate yellowish brown 10YR 6/6, damp, loose, very fine SAND, little silt, well sorted.			0.0	1.1
			4-6							
5										
6	4	6-8	4-4	2.0/2.0	7	Pale yellowish brown 10YR 6/2, damp, loose, fine SAND, some very fine sand, little silt, well sorted.			0.0	0.3
			3-5							
7										
8	5	8-10	3-5	2.0/1.9	13	Dark yellowish brown 10YR 4/2, moist, medium dense, medium SAND, little fine SAND to SILT, well sorted.			0.0	2.5
			8-10							
9										
10	6	10-12	4-7	2.0/2.0	15	Dark yellowish brown 10YR 4/2, saturated, medium dense, fine SAND, some very fine SAND, some very fine sand, little silt, well sorted, slight odor.			2.0	17.4
			8-10							
11										
12	7	12-14	7-10	2.0/1.5	29	Dark yellowish brown 10YR 4/2, saturated, medium dense, fine SAND, some subrounded to sbuangular medium sand, little silt, poorly sorted.			0.0	1.1
			19-14							
13										
14	8	14-16	38-78	1.1/1.1	--	Dark yellowish brown 10YR 4/2, extremely dense, saturated, fine SAND, some subrounded to subangular, medium to coarse sand, little angular fine gravel, trace silt to very fine sand.			0.0	0.2
			50/0.1							
15										
16	9	16-18	50/0.5	0.5/0.3	--	Pale brown 5YR 5/2, saturated, extremely dense, angular gravel and cobble fragments, little silt to medium sand.			0.0	0.3
17										
18	10	18-20	23-17	2.0/1.5	38	Moderate brown 5YR 4/4, saturated, medium dense, medium to coarse SAND, some silt to very fine sand, little subrounded to angular, fine to medium gravel, trace clay.			0.0	0.0
			21-25							
19										
20	11	20-22	18-25	2.0/2.0	51	Grayish red 10R 4/2, moist, very dense SILT, some subrounded to subangular, fine to coarse SAND, little subrounded to angular fine to medium gravel, trace clay, poorly sorted (Till).			0.0	0.0
			26-31							
21										
22										
23										

The borehole was backfilled with soil cuttings.

APPENDIX C

VOLATILE ORGANIC COMPOUNDS LABORATORY REPORTS - 1995

O'BRIEN & GERE LABORATORIES, INC.

Laboratory Report

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

Volatile Organics: Method 8010/8020 MATRIX: Solid

Analyzed 8-11,14,15,16-95 DATE COLLECTED 8-2,3,4,7-95 DATE RECEIVED 8-8-95

	Sample #	BENZENE	ETHYL-BENZENE	TOLUENE	XYLENES (total)
B-12 (4-6')	W5310	<1100.	<1100.	<1100.	41,000.
B-12 (22-24')	W5311	<1.	<1.	<1.	47.
B-13 (10-12')	W5312	<1.	<1.	<1.	<4.
B-14 (6-8')	W5313	<1.	<1.	<1.	<3.
B-15 (8-10')	W5314	<1.	<1.	<1.	<4.
B-16 (8-10')	W5315	<1.	<1.	<1.	3.
B-16 (16-18')	W5316	<1.	2.	<1.	200.
B-17 (8-10')	W5317	<1.	<1.	<1.	<3.
B-17 (14-16')	W5318	<110.	<110.	<110.	280.
B-18 (6-8')	W5319	<1.	<1.	<1.	<4.
B-18 (12-14')	W5320	<110.	<110.	<110.	3500.
B-21 (16-18')	W5321	<1.	2.	<1.	210.
B-21 (20-22')	W5322	<1.	<1.	<1.	<4.
B-19 (14-16')	W5323	<1.	<1.	<1.	<4.
B-20 (10-12')	W5324	<1.	<1.	<1.	<3.
B-23 (12-14')	W5325	<1.	<1.	<1.	<3.
B-23 (14-16')	W5326	<110.	<110.	<110.	370.
B-25 (10-12')	W5327	<1.	<1.	<1.	<4.
B-25 (18-20')	W5328	<1.	<1.	<1.	<3.
B-22 (12-14')	W5329	<1.	<1.	<1.	<3.

Comments:

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Lanthier

Date: September 1, 1995

O'BRIEN & GERE
LABORATORIES, INC.

Laboratory Report

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

Volatile Organics: Method 8010/8020 MATRIX: Solid/Water*

Date Analyzed 8-14,16-95 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

	Sample #	BENZENE	ETHYL-BENZENE	TOLUENE	XYLENES (total)
B-24 (8-10')	W5330	<1.	<1.	<1.	<3.
Equipment Blank	W5331*	<1.	<1.	<1.	<3.
QC Trip Blank	W5332*	<1.	<1.	<1.	<3.
QC Trip Blank	W5338*	<1.	<1.	<1.	<3.
QC Trip Blank	W5339*	<1.	<1.	<1.	<3.

Comments:

Certification No.: 10155

Units: µg/kg dry weight
*µg/l

Authorized: Monika Fenstermacher

Date: September 1, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Laboratory Report

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

MATRIX: Solid

DATE COLLECTED 8-2,4,7-95 DATE RECEIVED 8-8-95

	Sample #	PERCENT TOTAL SOLIDS	PH, LABORATORY std. units
B-24 (8-10')	W5330	90.8	-
B-12 (12-14')	W5333	87.0	8.0
B-16 (12-14')	W5334	85.5	7.7
B-17 (12-14')	W5335	90.8	7.9
B-18 (14-16')	W5336	84.2	8.1
B-25 (8-10')	W5337	88.2	7.9

Comments: pH analyzed outside recommended 15 minute holding time.

Certification No.: 10155

Units: See Above

Authorized: Monika Santucci

Date: September 1, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Laboratory Report

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

MATRIX: Solid

DATE COLLECTED 8-2,3,4,7-95 DATE RECEIVED 8-8-95

	Sample #	PERCENT TOTAL SOLIDS
B-12 (4-6')	W5310	92.0
B-12 (22-24')	W5311	92.2
B-13 (10-12')	W5312	77.3
B-14 (6-8')	W5313	94.1
B-15 (8-10')	W5314	85.5
B-16 (8-10')	W5315	85.8
B-16 (16-18')	W5316	82.0
B-17 (8-10')	W5317	95.7
B-17 (14-16')	W5318	89.1
B-18 (6-8')	W5319	82.7
B-18 (12-14')	W5320	90.9
B-21 (16-18')	W5321	82.8
B-21 (20-22')	W5322	85.6
B-19 (14-16')	W5323	82.3
B-20 (10-12')	W5324	90.0
B-23 (12-14')	W5325	92.2
B-23 (14-16')	W5326	89.9
B-25 (10-12')	W5327	81.7
B-25 (18-20')	W5328	88.0
B-22 (12-14')	W5329	87.3

Comments:

Certification No.: 10155

Units: %

Authorized: Monika Santucci

Date: September 1, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300. Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE ENGINEERS, INC.

Job No. 36150.05

Sheet 1 of 1

Office: SYRACUSE, NY

Address: 5000 BRITTONFIELD PKWY

Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: ICI AMERICAS MAESTRI SITE

LOCATION: LAKELAND, N.Y.

COLLECTED BY: CHAWN O'DELL

(Signature) Chawn O'Dell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-12 (0-2')	8/2/95	1519	SOIL	COMPOSITE	2	HOLD - See DAVE
B-12 (2-4')	8/2/95	1525	SOIL	COMPOSITE	2	TOWERS REGARDING
** B-12 (4-6')	8/2/95	1537	SOIL	COMPOSITE	2	ANALYSIS
B-12 (6-8')	8/2/95	1545	SOIL	COMPOSITE	2	
B-12 (8-10')	8/2/95	1556	SOIL	COMPOSITE	2	
B-12 (10-12')	8/2/95	1610	SOIL	COMPOSITE	2	
B-12 (12-14')	8/2/95	1622	SOIL	COMPOSITE	2	
B-12 (14-16')	8/2/95	1640	SOIL	COMPOSITE	2	
B-12 (16-18')	8/2/95	1653	SOIL	COMPOSITE	2	
B-12 (18-20')	8/2/95	1705	SOIL	COMPOSITE	2	
B-12 (20-22')	8/2/95	1719	SOIL	COMPOSITE	2	
** B-12 (22-24')	8/2/95	1735	SOIL	COMPOSITE	2	
TRIP BLANK	8/2/95	—	WATER	GRAB	1	

Lg. # 6762 (WS)

[1] Matrix = water, wastewater, air, sludge, sediment, etc.

[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Chawn O'Dell			Lee Ann Smith		
of: O'Brien & Gere Engineers, Inc.	8/6/95	1915	of: OBG Labs	8/7/95	0700
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g. Fed Ex) Relinquished by:	Date	Time	Courier Name:	Date	Time
of:			*Attach delivery/courier receipt to Chain of Custody		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

djb/wpC

September 17, 19

O'BRIEN & GERE ENGINEERS, INC.

Job No. 5618.005

Sheet 1 of 2

Office: SYRACUSE, N.Y.

Address: 5000 BRITTONFIELD PKWY

Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE

LOCATION: LAKELAND, N.Y.

COLLECTED BY: CHAWN ODELL

(Signature) Chawn Odell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-13 (0-2')	8/3/95	0735	SOIL	GRAB	2	HOLD - SEE DAVE
B-13 (2-4')	8/3/95	0740	SOIL	GRAB	2	TOWERS REGARDING
B-13 (4-6')	8/3/95	0755	SOIL	COMPOSITE	2	ANALYSIS.
B-13 (6-8')	8/3/95	0800	SOIL	COMPOSITE	2	
B-13 (8-10')	8/3/95	0810	SOIL	COMPOSITE	2	
** B-13 (10-12')	8/3/95	0818	SOIL	COMPOSITE	2	
B-13 (12-14')	8/3/95	0825	SOIL	COMPOSITE	1	
B-13 (14-16')	8/3/95	0850	SOIL	COMPOSITE	1	
B-14 (0-2')	8/3/95	1020	SOIL	COMPOSITE	2	
B-14 (2-4')	8/3/95	1025	SOIL	COMPOSITE	2	
B-14 (4-6')	8/3/95	1030	SOIL	COMPOSITE	2	
** B-14 (6-8')	8/3/95	1035	SOIL	COMPOSITE	2	
B-14 (8-10')	8/3/95	1057	SOIL	COMPOSITE	2	
B-14 (10-12')	8/3/95	1106	SOIL	COMPOSITE	2	

[1] Matrix = water, wastewater, air, sludge, sediment, etc.

[2] Type = grab, composite

	Date	Time		Date	Time
Relinquished by: Chawn Odell of: O'Brien & Gere Engineers, Inc.	8/3/95	1815	Received by: Wendy Smith of: DBTH Lab	8/4/95	0700
Relinquished by: of:			Received by: of:		
Relinquished by: of:			Received by: of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: of:			Courier Name: *Attach delivery/courier receipt to Chain of Custody		
Relinquished by: of:			Received by: of:		

djb/wpC

September 17, 1990

O'BRIEN & GERE ENGINEERS, INC.

Job No. 5618.005

Sheet 2 of 2

Office: SYRACUSE, N.Y.

Address: 5000 BRITTONFIELD PKWY

Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE

LOCATION: LAKELAND, N.Y.

COLLECTED BY: CHAWN ODELL

(Signature) Chawn ODell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-15 (0-2')	8/3/95	1503	SOIL	COMPOSITE	2	TCLP-SEE DAVE TOWERS REGARDING ANALYSIS.
B-15 (2-4')	8/3/95	1506	SOIL	COMPOSITE	2	
B-15 (4-6')	8/3/95	1527	SOIL	COMPOSITE	2	
B-15 (6-8')	8/3/95	1530	SOIL	COMPOSITE	2	
* B-15 (8-10')	8/3/95	1549	SOIL	COMPOSITE	2	
B-15 (10-12')	8/3/95	1555	SOIL	COMPOSITE	2	
B-15 (12-14')	8/3/95	1609	SOIL	COMPOSITE	2	
B-16 (0-2')	8/3/95	1630	SOIL	COMPOSITE	2	
B-16 (2-4')	8/3/95	1634	SOIL	COMPOSITE	2	
B-16 (4-6')	8/3/95	1640	SOIL	COMPOSITE	2	
TRIP BLANK	8/3/95	—	WATER	GRAB	1	

[1] Matrix = water, wastewater, air, sludge, sediment, etc.

[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Chawn ODell of: OBrien & Gere Engineers, Inc.	8/3/95	1815	Wendy Smith of: OBG Labs	8/4/95	0700
Relinquished by: of:	Date	Time	Received by: of:	Date	Time
Relinquished by: of:	Date	Time	Received by: of:	Date	Time
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: c.s:	Date:	Time:	Courier Name: *Attach delivery/courier receipt to Chain of Custody	Date:	Time:
Relinquished by: of:	Date	Time	Received by: of:	Date	Time

ENGINEERS, INC.

Office: SYRACUSE, N.Y.
Address: 5000 BRITTONFIELD PKWY
Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE
LOCATION: LAKELAND, N.Y.

COLLECTED BY: Shawn O'Dell
(Signature) Shawn O'Dell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-16 (6-8')	8/4/95	0702	SOIL	COMPOSITE	2	HOLD - See DAVE
B-16 (8-10')	8/4/95	0716	/	/	/	Towers Regarding
B-16 (10-12')	8/4/95	0720	/	/	/	Analysis.
B-16 (12-14')	8/4/95	0731	/	/	/	/
B-16 (14-16')	8/4/95	0735	/	/	/	/
B-16 (16-18')	8/4/95	0752	/	/	/	/
B-16 (18-20')	8/4/95	0758	/	/	/	/
B-17 (0-2')	8/4/95	0847	/	/	/	/
B-17 (2-4')	8/4/95	0851	/	/	/	/
B-17 (4-6')	8/4/95	0900	/	/	/	/
B-17 (6-8')	8/4/95	0907	/	/	/	/
B-17 (8-10')	8/4/95	0935	/	/	/	/
B-17 (12-14')	8/4/95	0958	/	/	/	/
B-17 (14-16')	8/4/95	1005	↓	↓	↓	↓

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Shawn O'Dell of: O'Brien & Gere Engineers, Inc.	8/4/95	1930	Wendy Smith of: OBG Labs	8/7/95	0900
Relinquished by: of:	Date	Time	Received by: of:	Date	Time
Relinquished by: of:	Date	Time	Received by: of:	Date	Time
Use this space if shipped via courier (e.g. Fed Ex) Relinquished by: of:	Date:	Time:	Courier Name: *Attach delivery/courier receipt to Chain of Custody	Date:	Time:
Relinquished by: of:	Date	Time	Received by: of:	Date	Time

ENGINEERS, INC.

Office: SYRACUSE, N.Y.
Address: 5000 BRITTONFIELD PKWY
Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE
LOCATION: LAKELAND, N.Y.

COLLECTED BY: CHAWN ODELL
(Signature) Chawn ODell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-17 (16-18')	8/4/95	1022	SOIL	COMPOSITE	2	HOLD - See DAVE
B-17 (18-20')	8/4/95	1030				Towers Regarding
B-17 (20-22')	8/4/95	1058				Analysis.
B-18 (0-2')	8/4/95	1143				
B-18 (2-4')	8/4/95	1146				
B-18 (4-6')	8/4/95	1155				
** B-18 (6-8')	8/4/95	1159				
B-18 (8-10')	8/4/95	1206				
B-13 (10-12')	8/4/95	1216				
** B-18 (12-14')	8/4/95	1228				
B-18 (14-16')	8/4/95	1230 CHD				
B-18 (16-18')	8/4/95	~~1245~~ CHD 1232				
B-18 (18-20')	8/4/95	1242 CPO				
B-21 (2-4')	8/4/95	1429	↓	↓	↓	↓

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Chawn ODell			Wendy Smith		
of: O'Brien & Gere Eng Inc.	8/4/95	1930	of: OBG Libs	8/7/95	0700
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date:	Time:	Courier Name:	Date:	Time:
of:			*Attach delivery/courier receipt to Chain of Custody		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

O'BRIEN & GERE ENGINEERS, INC.

JOB NO. 5018.005

Sheet 3 of 3

Office: SYRACUSE, N.Y.

Address: 5000 BRITTONFIELD PKWY

Phone: (315)437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE

LOCATION: LAKELAND, N.Y.

COLLECTED BY: Shawn ODell

(Signature) Shawn ODell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-21 (4-6')	8/4/95	1439	SOIL	COMPOSITE	2	HOLD - See DAVE
B-21 (6-8')	8/4/95	1447	/	/	/	TOWERS REGARDING
B-21 (12-14')	8/4/95	1645				ANALYSIS.
B-21 (14-16')	8/4/95	1652				
** B-21 (16-18')	8/4/95	1700				
B-21 (18-20')	8/4/95	1707				
** B-21 (20-22')	8/4/95	1722				
TRIP BLANK	8/4/95	—	WATER	GRAB	1	

[1] Matrix = water, wastewater, air, sludge, sediment, etc.

[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Shawn ODell			Wendy Smith		
of: O'Brien & Gere Engineers, Inc.	8/4/95	1930	of: O'Brien Lab	8/7/95	0700
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date:	Time:	Courier Name:	Date:	Time:
of:			*Attach delivery/courier receipt to Chain of Custody		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

djb/wpC

September 17, 19

O'BRIEN & GERE ENGINEERS, INC.

JOB NO. 5618.005

Sheet 1 of 4

Office: SYRACUSE, N.Y.

Address: 5000 BRITTONFIELD PKWY

Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE

LOCATION: LAKELAND, N.Y.

COLLECTED BY: CHAWN O'DELL

(Signature) Chawn O'Dell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-19 (0-2')	8/7/05	0726	SOIL	COMPOSITE	2	WOLD-CONTACT DAVE
B-19 (2-4')	8/7/05	0729	SOIL	COMPOSITE	2	TOWERS REGARDING
B-19 (4-6')	8/7/05	0737	SOIL	COMPOSITE	2	ANALYSIS.
B-19 (6-8')	8/7/05	0740	SOIL	COMPOSITE	2	
B-19 (8-10')	8/7/05	0745	SOIL	COMPOSITE	2	
B-19 (10-12')	8/7/05	0748	SOIL	COMPOSITE	2	
B-19 (12-14')	8/7/05	0755	SOIL	COMPOSITE	2	
B-19 (14-16')	8/7/05	0758	SOIL	COMPOSITE	2	
B-19 (16-18')	8/7/05	0807	SOIL	COMPOSITE	2	
Equipment Blank	8/7/05	0850	WATER	GRAB	3	
B-20 (0-2')	8/7/05	0913	SOIL	COMPOSITE	2	
B-20 (2-4')	8/7/05	0916	SOIL	COMPOSITE	2	
B-20 (4-6')	8/7/05	0922	SOIL	COMPOSITE	2	
B-20 (6-8')	8/7/05	0925	SOIL	COMPOSITE	2	

[1] Matrix = water, wastewater, air, sludge, sediment, etc.

[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Chawn O'Dell			Wendy Smith		
of: O'Brien & Gere Engineers Inc.	8/7/05	1930	of: OBG Labs	8/8/05	0700
Relinquished by:			Received by:		
of:			of:		
Relinquished by:			Received by:		
of:			of:		
Use this space if shipped via courier (e.g. Fed Ex) Relinquished by:			Courier Name:		
of:			*Attach delivery/courier receipt to Chain of Custody		
Relinquished by:			Received by:		
of:			of:		

ENGINEERS, INC.

Office: SYRACUSE, N.Y.
Address: 5000 BRITTONFIELD PKWY.
Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE
LOCATION: LAKELAND, N.Y.

COLLECTED BY: CHAWN ODELL
(Signature) Chawn ODell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-20 (8-10')	8/7/95	0933	SOIL	COMPOSITE	2	HOLD-CONTACT DAVE
B-20 (10-12')	8/7/95	0936	SOIL	COMPOSITE	2	TOWERS REGARDING
B-20 (12-14')	8/7/95	0948	SOIL	COMPOSITE	2	ANALYSIS
B-20 (14-16')	8/7/95	0959	SOIL	COMPOSITE	2	
B-23 (0-2')	8/7/95	1111	SOIL	COMPOSITE	2	
B-23 (2-4')	8/7/95	1113	SOIL	COMPOSITE	2	
B-23 (4-6')	8/7/95	1124	SOIL	COMPOSITE	2	
B-23 (6-8')	8/7/95	1127	SOIL	COMPOSITE	2	
B-23 (10-12') *	8/7/95	1150	SOIL	COMPOSITE	2	
B-23 (12-14')	8/7/95	1209	SOIL	COMPOSITE	2	
B-23 (14-16')	8/7/95	1221	SOIL	COMPOSITE	2	
B-25 (0-2')	8/7/95	1305	SOIL	COMPOSITE	2	
B-25 (2-4')	8/7/95	1307	SOIL	COMPOSITE	2	
B-25 (4-6')	8/7/95	1319	SOIL	COMPOSITE	2	

* insufficient Sample - use B-23 (12-14') instead per Al Tidwell

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Chawn ODell of O'Brien & Gere Engineers, Inc.	8/7/95	1930	Wendy Smith of OBG Labs	8/8/95	0700
Use this space if shipped via courier (e.g. Fed Ex) Relinquished by: of:			Courier Name: *Attach delivery/courier receipt to Chain of Custody		

ENGINEERS, INC.

Office: SYRACUSE, N.Y.
Address: 5000 BRITTONFIELD PKWY
Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE
LOCATION: LAKELAND N.Y.

COLLECTED BY: CHAWN ODELL
(Signature) Chawn Odell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-25 (6-8')	8/7/95	1321	SOIL	COMPOSITE	2	HOLD — CONTACT DAVE
B-25 (8-10')	8/7/95	1327	SOIL	COMPOSITE	2	TOWERS REGARDING
** B-25 (10-12')	8/7/95	1329	SOIL	COMPOSITE	2	ANALYSIS
B-25 (12-14')	8/7/95	1341	SOIL	COMPOSITE	2	
B-25 (14-16')	8/7/95	1343	SOIL	COMPOSITE	2	
** B-25 (18-20')	8/7/95	1410	SOIL	COMPOSITE	2	
B-22 (0-2')	8/7/95	1455	SOIL	COMPOSITE	2	
B-22 (2-4')	8/7/95	1459	SOIL	COMPOSITE	2	
B-22 (4-6')	8/7/95	1503	SOIL	COMPOSITE	2	
B-22 (6-8')	8/7/95	1508	SOIL	COMPOSITE	2	
B-22 (8-10')	8/7/95	1515	SOIL	COMPOSITE	2	
B-22 (10-12')	8/7/95	1517	SOIL	COMPOSITE	2	
** B-22 (12-14')	8/7/95	1525	SOIL	COMPOSITE	2	
B-22 (18-20')	8/7/95	1555	SOIL	COMPOSITE	2	

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Chawn Odell			Wendy Smith		
of: O'Brien & Gere Engineers Inc.	8/7/95	1930	of: O'BG Labs	8/8/95	8700
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date:	Time:	Courier Name:	Date:	Time:
of:			*Attach delivery/courier receipt to Chain of Custody		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

O'BRIEN & GERE ENGINEERS, INC.

JOB NO. 5 6/6.005

Sheet 4 of 4

Office: SYRACUSE N.Y.
Address: 5000 Brittonfield Pkwy
Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: MAESTRI SITE
LOCATION: LAKE LAND, N.Y.

COLLECTED BY: CHAWN ODELL
(Signature) Chawn ODell

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-24 (0-2')	9/7/95	1629	SOIL	COMPOSITE	2	HOLD - CONTACT DAVE
B-24 (4-6')	9/7/95	1640	SOIL	COMPOSITE	2	TOWERS REGARDING
B-24 (6-8')	9/7/95	1643	SOIL	COMPOSITE	2	ANALYSIS
LW B-24 (8-10')	9/7/95	1650	SOIL	COMPOSITE	2	↓

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
Chawn ODell			Wendy Smith		
of: O'Brien & Gere Engineers, Inc.	9/7/95	1930	of: DHG Labs	9/8/95	0700
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date:	Time:	Courier Name:	Date:	Time:
of:			*Attach delivery/courier receipt to Chain of Custody		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

O'BRIEN & GERE LABORATORIES, INC.

CASE FILE FORM

PROGRAM INFORMATION

Client: OB+G Engineers Div. 76 Ref. No. ____________

Program: ICI Maestri Site

Location: City/Town Lakeland State NY

Date Rec'd: 8/3 to 8/7/95 Time Rec'd: ____________ Sampler: Chaux O'Dell

Custody Seal: ______ Intact ______ Not Intact ✓ NA

AFTER HOURS CUSTODY

RELINQUISHED BY:	DATE	TIME	RECEIVED BY SECURITY GUARD:	DATE	TIME
RELINQUISHED BY SECURITY GUARD TO COOLER:	**DATE**	**TIME**	**RECEIVED BY SAMPLE CUSTODIAN:**	**DATE**	**TIME**

COMMENTS/DISCREPANCY:

Samples delivered after hours + put into secured lab walkin coolers from 8-3 to 8-7-95. These were on Hold until 8-8-95 - Analysis per Al Farrell to Monika Santucci 8010/8020 8270 + PCTS. Additional samples for Nitrite+Nitrate, NH_3N, TKN, PH, Phos: B-12 (12-14')

B-16 ↓

B-17

B-18 (14-16')

B-25 (8-10')

Samples were kept @ 4°c.

RESOLUTION/CLIENT COMMENT:

Al clarified the Wet Chem analysis on 8/~~8~~10/95 to include the following: % PCTS, NO_2NO_3, TKN, pH, T-P & TOC.
~~[illegible]~~ (Al Farrell)

Signed: Wendy Smith Project Manager Approval: MS

Date: 8-8-95 QA/QC Approval: ____________

SAMPLE DISPOSAL

Disposal Procedure: Routine

Signed: Monika Santucci

Date: 9/5/95

OBG LABORATORIES, INC.
CASE FILE FORM
(continued)

COMMENTS/DISCREPANCY: (continued)

On 8/15/95 Pam Sheeler contacted the lab and further instructed to subcontract all of the Wet Chemistry parameters to Bio Trol. This was performed as requested and the report will be forwarded directly from Bio Trol to Pam Sheeler & O'Brien & Gere Engineers - Edison Office. However, O'Brien & Gere Laboratories, Inc. already performed the pH and TCLP on these samples and are included with this report.

PROPOSED RESOLUTION: (continued)

CLIENT COMMENTS: (continued)

Signed: Monika Stanisci Project Manager Approval: MS

Date: 8/30/95 QA/QC Approval: _____

APPENDIX D

SEMI-VOLATILE ORGANIC COMPOUNDS LABORATORY REPORT - 1995

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE — JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-12 (4-6') — MATRIX: Solid

SAMPLE NO. W5310 — DATE COLLECTED 8-2-95 — DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 — DATE ANALYZED 8-23-95

Phenol	<360.	4-Chloro-3-methylphenol	<360.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1700.
Benzyl alcohol		2-Chloronaphthalene	<360.
1,2-Dichlorobenzene		2-Nitroaniline	<1700.
2-Methylphenol		Dimethylphthalate	<360.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1700.
Hexachloroethane		Acenaphthene	<360.
Nitrobenzene		2,4-Dinitrophenol	<1700.
Isophorone		4-Nitrophenol	<1700.
2-Nitrophenol		Dibenzofuran	<360.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1700.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<360.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1700.
Naphthalene		4,6-Dinitro-2-methylphenol	<1700.
4-Chloroaniline		N-Nitrosodiphenylamine	<360.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<360.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE — JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-12 (4-6') — MATRIX: Solid

SAMPLE NO. W5310 — DATE COLLECTED 8-2-95 — DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 — DATE ANALYZED 8-23-95

Hexachlorobenzene	<360.	Benzo (a) anthracene	<360.
Pentachlorophenol	<1700.	Chrysene	
Phenanthrene	<360.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<720.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE — JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-12 (22-24') — MATRIX: Solid

SAMPLE NO. W5311 — DATE COLLECTED 8-2-95 — DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 — DATE ANALYZED 8-23-95

Phenol	<360.	4-Chloro-3-methylphenol	<360.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1700.
Benzyl alcohol		2-Chloronaphthalene	<360.
1,2-Dichlorobenzene		2-Nitroaniline	<1700.
2-Methylphenol		Dimethylphthalate	<360.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1700.
Hexachloroethane		Acenaphthene	<360.
Nitrobenzene		2,4-Dinitrophenol	<1700.
Isophorone		4-Nitrophenol	<1700.
2-Nitrophenol		Dibenzofuran	<360.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1700.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<360.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1700.
Naphthalene		4,6-Dinitro-2-methylphenol	<1700.
4-Chloroaniline		N-Nitrosodiphenylamine	<360.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<360.

Authorized: Monika Sanucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300. Box 4942 / Syracuse. NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-12 (22-24') MATRIX: Solid

SAMPLE NO. W5311 DATE COLLECTED 8-2-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<360.	Benzo (a) anthracene	<360.
Pentachlorophenol	<1700.	Chrysene	
Phenanthrene	<360.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<720.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Fantucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300. Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-13 (10-12') MATRIX: Solid

SAMPLE NO. W5312 DATE COLLECTED 8-3-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<430.	4-Chloro-3-methylphenol	<430.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<2100.
Benzyl alcohol		2-Chloronaphthalene	<430.
1,2-Dichlorobenzene		2-Nitroaniline	<2100.
2-Methylphenol		Dimethylphthalate	<430.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<2100.
Hexachloroethane		Acenaphthene	<430.
Nitrobenzene		2,4-Dinitrophenol	<2100.
Isophorone		4-Nitrophenol	<2100.
2-Nitrophenol		Dibenzofuran	<430.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<2100.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<430.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<2100.
Naphthalene		4,6-Dinitro-2-methylphenol	<2100.
4-Chloroaniline		N-Nitrosodiphenylamine	<430.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<430.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-13 (10-12') MATRIX: Solid

SAMPLE NO. W5312 DATE COLLECTED 8-3-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<430.	Benzo (a) anthracene	<430.
Pentachlorophenol	<2100.	Chrysene	
Phenanthrene	<430.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<850.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Fontucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-14 (6-8') MATRIX: Solid

SAMPLE NO. W5313 DATE COLLECTED 8-3-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<350.	4-Chloro-3-methylphenol	<350.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1700.
Benzyl alcohol		2-Chloronaphthalene	<350.
1,2-Dichlorobenzene		2-Nitroaniline	<1700.
2-Methylphenol		Dimethylphthalate	<350.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1700.
Hexachloroethane		Acenaphthene	<350.
Nitrobenzene		2,4-Dinitrophenol	<1700.
Isophorone		4-Nitrophenol	<1700.
2-Nitrophenol		Dibenzofuran	<350.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1700.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<350.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1700.
Naphthalene		4,6-Dinitro-2-methylphenol	<1700.
4-Chloroaniline		N-Nitrosodiphenylamine	<350.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<350.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-14 (6-8') MATRIX: Solid

SAMPLE NO. W5313 DATE COLLECTED 8-3-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<350.	Benzo (a) anthracene	<350.
Pentachlorophenol	<1700.	Chrysene	<350.
Phenanthrene	<350.	Bis (2-ethylhexyl) phthalate	480.
Anthracene		Di-n-octylphthalate	<350.
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	700.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-15 (8-10') MATRIX: Solid

SAMPLE NO. W5314 DATE COLLECTED 8-3-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<390.	4-Chloro-3-methylphenol	<390.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1900.
Benzyl alcohol		2-Chloronaphthalene	<390.
1,2-Dichlorobenzene		2-Nitroaniline	<1900.
2-Methylphenol		Dimethylphthalate	<390.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1900.
Hexachloroethane		Acenaphthene	<390.
Nitrobenzene		2,4-Dinitrophenol	<1900.
Isophorone		4-Nitrophenol	<1900.
2-Nitrophenol		Dibenzofuran	<390.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1900.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<390.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1900.
Naphthalene		4,6-Dinitro-2-methylphenol	<1900.
4-Chloroaniline		N-Nitrosodiphenylamine	<390.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<390.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-15 (8-10') MATRIX: Solid

SAMPLE NO. W5314 DATE COLLECTED 8-3-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<390.	Benzo (a) anthracene	<390.
Pentachlorophenol	<1900.	Chrysene	
Phenanthrene	<390.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<770.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300. Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-16 (8-10') MATRIX: Solid

SAMPLE NO. W5315 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<380.	4-Chloro-3-methylphenol	<380.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1900.
Benzyl alcohol		2-Chloronaphthalene	<380.
1,2-Dichlorobenzene		2-Nitroaniline	<1900.
2-Methylphenol		Dimethylphthalate	<380.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1900.
Hexachloroethane		Acenaphthene	<380.
Nitrobenzene		2,4-Dinitrophenol	<1900.
Isophorone		4-Nitrophenol	<1900.
2-Nitrophenol		Dibenzofuran	<380.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1900.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<380.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1900.
Naphthalene		4,6-Dinitro-2-methylphenol	<1900.
4-Chloroaniline		N-Nitrosodiphenylamine	<380.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<380.

Authorized: Monika Fanucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE — JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-16 (8-10') — MATRIX: Solid

SAMPLE NO. W5315 — DATE COLLECTED 8-4-95 — DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 — DATE ANALYZED 8-23-95

Hexachlorobenzene	<380.	Benzo (a) anthracene	<380.
Pentachlorophenol	<1900.	Chrysene	<3800.
Phenanthrene	<380.	Bis (2-ethylhexyl) phthalate	530.
Anthracene		Di-n-octylphthalate	<380.
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<770.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE — JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-16 (16-18') — MATRIX: Solid

SAMPLE NO. W5316 — DATE COLLECTED 8-4-95 — DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 — DATE ANALYZED 8-23-95

Phenol	<400.	4-Chloro-3-methylphenol	<400.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<2000.
Benzyl alcohol		2-Chloronaphthalene	<400.
1,2-Dichlorobenzene		2-Nitroaniline	<2000.
2-Methylphenol		Dimethylphthalate	<400.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<2000.
Hexachloroethane		Acenaphthene	<400.
Nitrobenzene		2,4-Dinitrophenol	<2000.
Isophorone		4-Nitrophenol	<2000.
2-Nitrophenol		Dibenzofuran	<400.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<2000.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<400.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<2000.
Naphthalene		4,6-Dinitro-2-methylphenol	<2000.
4-Chloroaniline		N-Nitrosodiphenylamine	<400.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<400.

Authorized: Monika Sanheer

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE — JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-16 (16-18') — MATRIX: Solid

SAMPLE NO. W5316 — DATE COLLECTED 8-4-95 — DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 — DATE ANALYZED 8-23-95

Hexachlorobenzene	<400.	Benzo (a) anthracene	<400.
Pentachlorophenol	<2000.	Chrysene	
Phenanthrene	<400.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<800.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-17 (8-10') MATRIX: Solid

SAMPLE NO. W5317 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<340.	4-Chloro-3-methylphenol	<340.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1700.
Benzyl alcohol		2-Chloronaphthalene	<340.
1,2-Dichlorobenzene		2-Nitroaniline	<1700.
2-Methylphenol		Dimethylphthalate	<340.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1700.
Hexachloroethane		Acenaphthene	<340.
Nitrobenzene		2,4-Dinitrophenol	<1700.
Isophorone		4-Nitrophenol	<1700.
2-Nitrophenol		Dibenzofuran	<340.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1700.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<340.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1700.
Naphthalene		4,6-Dinitro-2-methylphenol	<1700.
4-Chloroaniline		N-Nitrosodiphenylamine	<340.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<340.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-17 (8-10') MATRIX: Solid

SAMPLE NO. W5317 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<340.	Benzo (a) anthracene	<340.
Pentachlorophenol	<1700.	**Chrysene**	
Phenanthrene	<340.	Bis (2-ethylhexyl) phthalate	
Anthracene		**Di-n-octylphthalate**	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		**Benzo (k) fluoranthene**	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		**Indeno (1,2,3-cd) pyrene**	
3,3'-Dichlorobenzidine	<690.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-17 (14-16') MATRIX: Solid

SAMPLE NO. W5318 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<370.	4-Chloro-3-methylphenol	<370.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1800.
Benzyl alcohol		2-Chloronaphthalene	<370.
1,2-Dichlorobenzene		2-Nitroaniline	<1800.
2-Methylphenol		Dimethylphthalate	<370.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1800.
Hexachloroethane		Acenaphthene	<370.
Nitrobenzene		2,4-Dinitrophenol	<1800.
Isophorone		4-Nitrophenol	<1800.
2-Nitrophenol		Dibenzofuran	<370.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1800.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<370.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1800.
Naphthalene		4,6-Dinitro-2-methylphenol	<1800.
4-Chloroaniline		N-Nitrosodiphenylamine	<370.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<370.

Authorized: Monika Lanucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-17 (14-16') MATRIX: Solid

SAMPLE NO. W5318 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<370.	Benzo (a) anthracene	<370.
Pentachlorophenol	<1800.	Chrysene	
Phenanthrene	<370.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<740.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Sanducci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-18 (6-8') MATRIX: Solid

SAMPLE NO. W5319 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<400.	4-Chloro-3-methylphenol	<400.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1900.
Benzyl alcohol		2-Chloronaphthalene	<400.
1,2-Dichlorobenzene		2-Nitroaniline	<1900.
2-Methylphenol		Dimethylphthalate	<400.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1900.
Hexachloroethane		Acenaphthene	<400.
Nitrobenzene		2,4-Dinitrophenol	<1900.
Isophorone		4-Nitrophenol	<1900.
2-Nitrophenol		Dibenzofuran	<400.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1900.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<400.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1900.
Naphthalene		4,6-Dinitro-2-methylphenol	<1900.
4-Chloroaniline		N-Nitrosodiphenylamine	<400.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<400.

Authorized: Monika Fontaine

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE — JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-18 (6-8') — MATRIX: Solid

SAMPLE NO. W5319 — DATE COLLECTED 8-4-95 — DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 — DATE ANALYZED 8-23-95

Hexachlorobenzene	<400.	Benzo (a) anthracene	<400.
Pentachlorophenol	<1900.	Chrysene	
Phenanthrene	<400.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<800.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-18 (12-14') MATRIX: Solid

SAMPLE NO. W5320 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<360.	4-Chloro-3-methylphenol	<360.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1800.
Benzyl alcohol		2-Chloronaphthalene	<360.
1,2-Dichlorobenzene		2-Nitroaniline	<1800.
2-Methylphenol		Dimethylphthalate	<360.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1800.
Hexachloroethane		Acenaphthene	<360.
Nitrobenzene		2,4-Dinitrophenol	<1800.
Isophorone		4-Nitrophenol	<1800.
2-Nitrophenol		Dibenzofuran	<360.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1800.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<360.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1800.
Naphthalene		4,6-Dinitro-2-methylphenol	<1800.
4-Chloroaniline		N-Nitrosodiphenylamine	<360.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<360.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories Inc. *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-18 (12-14') MATRIX: Solid

SAMPLE NO. W5320 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<360.	Benzo (a) anthracene	<360.
Pentachlorophenol	<1800.	Chrysene	
Phenanthrene	<360.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<730.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-21 (16-18') MATRIX: Solid

SAMPLE NO. W5321 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<400.	4-Chloro-3-methylphenol	<400.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1900.
Benzyl alcohol		2-Chloronaphthalene	<400.
1,2-Dichlorobenzene		2-Nitroaniline	<1900.
2-Methylphenol		Dimethylphthalate	<400.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1900.
Hexachloroethane		Acenaphthene	<400.
Nitrobenzene		2,4-Dinitrophenol	<1900.
Isophorone		4-Nitrophenol	<1900.
2-Nitrophenol		Dibenzofuran	<400.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1900.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<400.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1900.
Naphthalene		4,6-Dinitro-2-methylphenol	<1900.
4-Chloroaniline		N-Nitrosodiphenylamine	<400.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<400.

Authorized: Monika Jankowski

Date: August 31, 1995

O'Brien & Gere Laboratories Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-21 (16-18') MATRIX: Solid

SAMPLE NO. W5321 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<400.	Benzo (a) anthracene	<400.
Pentachlorophenol	<1900.	Chrysene	
Phenanthrene	<400.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<800.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-21 (20-22') MATRIX: Solid

SAMPLE NO. W5322 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<390.	4-Chloro-3-methylphenol	<390.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1900.
Benzyl alcohol		2-Chloronaphthalene	<390.
1,2-Dichlorobenzene		2-Nitroaniline	<1900.
2-Methylphenol		Dimethylphthalate	<390.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1900.
Hexachloroethane		Acenaphthene	<390.
Nitrobenzene		2,4-Dinitrophenol	<1900.
Isophorone		4-Nitrophenol	<1900.
2-Nitrophenol		Dibenzofuran	<390.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1900.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<390.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1900.
Naphthalene		4,6-Dinitro-2-methylphenol	<1900.
4-Chloroaniline		N-Nitrosodiphenylamine	<390.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<390.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-21 (20-22') MATRIX: Solid

SAMPLE NO. W5322 DATE COLLECTED 8-4-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<390.	Benzo (a) anthracene	<390.
Pentachlorophenol	<1900.	Chrysene	
Phenanthrene	<390.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<770.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-19 (14-16') MATRIX: Solid

SAMPLE NO. W5323 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<400.	4-Chloro-3-methylphenol	<400.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1900.
Benzyl alcohol		2-Chloronaphthalene	<400.
1,2-Dichlorobenzene		2-Nitroaniline	<1900.
2-Methylphenol		Dimethylphthalate	<400.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1900.
Hexachloroethane		Acenaphthene	<400.
Nitrobenzene		2,4-Dinitrophenol	<1900.
Isophorone		4-Nitrophenol	<1900.
2-Nitrophenol		Dibenzofuran	<400.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1900.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<400.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1900.
Naphthalene		4,6-Dinitro-2-methylphenol	<1900.
4-Chloroaniline		N-Nitrosodiphenylamine	<400.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<400.

Authorized: Monika Jankowski

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT: MAESTRI SITE — JOB NO.: 3213.008.517

DESCRIPTION: Geddes, NY
B-19 (14-16') — MATRIX: Solid

SAMPLE NO.: W5323 — DATE COLLECTED: 8-7-95 — DATE RECEIVED: 8-8-95

DATE EXTRACTED: 8-9-95 — DATE ANALYZED: 8-23-95

Hexachlorobenzene	<400.	Benzo (a) anthracene	<400.
Pentachlorophenol	<1900.	Chrysene	
Phenanthrene	<400.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<800.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monica Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-20 (10-12') MATRIX: Solid

SAMPLE NO. W5324 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<370.	4-Chloro-3-methylphenol	<370.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1800.
Benzyl alcohol		2-Chloronaphthalene	<370.
1,2-Dichlorobenzene		2-Nitroaniline	<1800.
2-Methylphenol		Dimethylphthalate	<370.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1800.
Hexachloroethane		Acenaphthene	<370.
Nitrobenzene		2,4-Dinitrophenol	<1800.
Isophorone		4-Nitrophenol	<1800.
2-Nitrophenol		Dibenzofuran	<370.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1800.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<370.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1800.
Naphthalene		4,6-Dinitro-2-methylphenol	<1800.
4-Chloroaniline		N-Nitrosodiphenylamine	<370.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<370.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-20 (10-12') MATRIX: Solid

SAMPLE NO. W5324 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<370.	Benzo (a) anthracene	<370.
Pentachlorophenol	<1800.	Chrysene	
Phenanthrene	<370.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<730.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Sankucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-23 (12-14'). MATRIX: Solid

SAMPLE NO. W5325 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<360.	4-Chloro-3-methylphenol	<360.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1700.
Benzyl alcohol		2-Chloronaphthalene	<360.
1,2-Dichlorobenzene		2-Nitroaniline	<1700.
2-Methylphenol		Dimethylphthalate	<360.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1700.
Hexachloroethane		Acenaphthene	<360.
Nitrobenzene		2,4-Dinitrophenol	<1700.
Isophorone		4-Nitrophenol	<1700.
2-Nitrophenol		Dibenzofuran	<360.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1700.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<360.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1700.
Naphthalene		4,6-Dinitro-2-methylphenol	<1700.
4-Chloroaniline		N-Nitrosodiphenylamine	<360.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<360.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
B-23 (12-14') MATRIX: Solid

SAMPLE NO. W5325 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<360.	Benzo (a) anthracene	<360.
Pentachlorophenol	<1700.	Chrysene	
Phenanthrene	<360.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<720.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monica Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300. Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-23 (14-16') MATRIX: Solid

SAMPLE NO. W5326 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<370.	4-Chloro-3-methylphenol	<370.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1800.
Benzyl alcohol		2-Chloronaphthalene	<370.
1,2-Dichlorobenzene		2-Nitroaniline	<1800.
2-Methylphenol		Dimethylphthalate	<370.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1800.
Hexachloroethane		Acenaphthene	<370.
Nitrobenzene		2,4-Dinitrophenol	<1800.
Isophorone		4-Nitrophenol	<1800.
2-Nitrophenol		Dibenzofuran	<370.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1800.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<370.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1800.
Naphthalene		4,6-Dinitro-2-methylphenol	<1800.
4-Chloroaniline		N-Nitrosodiphenylamine	<370.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<370.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-23 (14-16') MATRIX: Solid

SAMPLE NO. W5326 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<370.	Benzo (a) anthracene	<370.
Pentachlorophenol	<1800.	**Chrysene**	
Phenanthrene	<370.	Bis (2-ethylhexyl) phthalate	
Anthracene		**Di-n-octylphthalate**	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		**Benzo (k) fluoranthene**	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		**Indeno (1,2,3-cd) pyrene**	
3,3'-Dichlorobenzidine	<730.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Sanfucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-25 (10-12') MATRIX: Solid

SAMPLE NO. W5327 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<400.	4-Chloro-3-methylphenol	<400.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<2000.
Benzyl alcohol		2-Chloronaphthalene	<400.
1,2-Dichlorobenzene		2-Nitroaniline	<2000.
2-Methylphenol		Dimethylphthalate	<400.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<2000.
Hexachloroethane		Acenaphthene	<400.
Nitrobenzene		2,4-Dinitrophenol	<2000.
Isophorone		4-Nitrophenol	<2000.
2-Nitrophenol		Dibenzofuran	<400.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<2000.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<400.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<2000.
Naphthalene		4,6-Dinitro-2-methylphenol	<2000.
4-Chloroaniline		N-Nitrosodiphenylamine	<400.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<400.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-25 (10-12') MATRIX: Solid

SAMPLE NO. W5327 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<400.	Benzo (a) anthracene	<400.
Pentachlorophenol	<2000.	**Chrysene**	
Phenanthrene	<400.	Bis (2-ethylhexyl) phthalate	
Anthracene		**Di-n-octylphthalate**	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		**Benzo (k) fluoranthene**	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		**Indeno (1,2,3-cd) pyrene**	
3,3'-Dichlorobenzidine	<810.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-25 (18-20') MATRIX: Solid

SAMPLE NO. W5328 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<380.
Bis (2-chloroethyl) ether	
2-Chlorophenol	
1,3-Dichlorobenzene	
1,4-Dichlorobenzene	
Benzyl alcohol	
1,2-Dichlorobenzene	
2-Methylphenol	
Bis (2-chloroisopropyl) ether	
4-Methylphenol	
N-Nitroso-di-n-propylamine	
Hexachloroethane	
Nitrobenzene	
Isophorone	
2-Nitrophenol	
2,4-Dimethylphenol	
Benzoic acid	<1800.
Bis (2-chloroethoxy) methane	<380.
2,4-Dichlorophenol	
1,2,4-Trichlorobenzene	
Naphthalene	
4-Chloroaniline	
Hexachlorobutadiene	
4-Chloro-3-methylphenol	<380.
2-Methylnaphthalene	
Hexachlorocyclopentadiene	
2,4,6-Trichlorophenol	
2,4,5-Trichlorophenol	<1800.
2-Chloronaphthalene	<380.
2-Nitroaniline	<1800.
Dimethylphthalate	<380.
Acenaphthylene	
2,6-Dinitrotoluene	
3-Nitroaniline	<1800.
Acenaphthene	<380.
2,4-Dinitrophenol	<1800.
4-Nitrophenol	<1800.
Dibenzofuran	<380.
2,4-Dinitrotoluene	
Diethylphthalate	
4-Chlorophenyl-phenylether	
Fluorene	
4-Nitroaniline	<1800.
4,6-Dinitro-2-methylphenol	<1800.
N-Nitrosodiphenylamine	<380.
4-Bromophenyl-phenylether	<380.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-25 (18-20') MATRIX: Solid

SAMPLE NO. W5328 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<380.	Benzo (a) anthracene	<380.
Pentachlorophenol	<1800.	Chrysene	
Phenanthrene	<380.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<750.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300. Box 4942 / Syracuse. NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-22 (12-14') MATRIX: Solid

SAMPLE NO. W5329 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Phenol	<380.	4-Chloro-3-methylphenol	<380.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1800.
Benzyl alcohol		2-Chloronaphthalene	<380.
1,2-Dichlorobenzene		2-Nitroaniline	<1800.
2-Methylphenol		Dimethylphthalate	<380.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1800.
Hexachloroethane		Acenaphthene	<380.
Nitrobenzene		2,4-Dinitrophenol	<1800.
Isophorone		4-Nitrophenol	<1800.
2-Nitrophenol		Dibenzofuran	<380.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1800.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<380.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1800.
Naphthalene		4,6-Dinitro-2-methylphenol	<1800.
4-Chloroaniline		N-Nitrosodiphenylamine	<380.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<380.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-22 (12-14') MATRIX: Solid

SAMPLE NO. W5329 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-23-95

Hexachlorobenzene	<380.	Benzo (a) anthracene	<380.
Pentachlorophenol	<1800.	Chrysene	
Phenanthrene	<380.	Bis (2-ethylhexyl) phthalate	
Anthracene		Di-n-octylphthalate	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		Benzo (k) fluoranthene	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		Indeno (1,2,3-cd) pyrene	
3,3'-Dichlorobenzidine	<760.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-24 (8-10') MATRIX: Solid

SAMPLE NO. W5330 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-24-95

Phenol	<360.	4-Chloro-3-methylphenol	<360.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<1800.
Benzyl alcohol		2-Chloronaphthalene	<360.
1,2-Dichlorobenzene		2-Nitroaniline	<1800.
2-Methylphenol		Dimethylphthalate	<360.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<1800.
Hexachloroethane		Acenaphthene	<360.
Nitrobenzene		2,4-Dinitrophenol	<1800.
Isophorone		4-Nitrophenol	<1800.
2-Nitrophenol		Dibenzofuran	<360.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<1800.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<360.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<1800.
Naphthalene		4,6-Dinitro-2-methylphenol	<1800.
4-Chloroaniline		N-Nitrosodiphenylamine	<360.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<360.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY

B-24 (8-10') MATRIX: Solid

SAMPLE NO. W5330 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-24-95

Hexachlorobenzene	<360.	Benzo (a) anthracene	<360.
Pentachlorophenol	<1800.	**Chrysene**	
Phenanthrene	<360.	Bis (2-ethylhexyl) phthalate	
Anthracene		**Di-n-octylphthalate**	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		**Benzo (k) fluoranthene**	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		**Indeno (1,2,3-cd) pyrene**	
3,3'-Dichlorobenzidine	<730.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/kg dry weight

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300. Box 4942 / Syracuse. NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
Equipment Blank MATRIX: Water

SAMPLE NO. W5331 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-24-95

Phenol	<11.	4-Chloro-3-methylphenol	<11.
Bis (2-chloroethyl) ether		2-Methylnaphthalene	
2-Chlorophenol		Hexachlorocyclopentadiene	
1,3-Dichlorobenzene		2,4,6-Trichlorophenol	
1,4-Dichlorobenzene		2,4,5-Trichlorophenol	<54.
Benzyl alcohol		2-Chloronaphthalene	<11.
1,2-Dichlorobenzene		2-Nitroaniline	<54.
2-Methylphenol		Dimethylphthalate	<11.
Bis (2-chloroisopropyl) ether		Acenaphthylene	
4-Methylphenol		2,6-Dinitrotoluene	
N-Nitroso-di-n-propylamine		3-Nitroaniline	<54.
Hexachloroethane		Acenaphthene	<11.
Nitrobenzene		2,4-Dinitrophenol	<54.
Isophorone		4-Nitrophenol	<54.
2-Nitrophenol		Dibenzofuran	<11.
2,4-Dimethylphenol		2,4-Dinitrotoluene	
Benzoic acid	<54.	Diethylphthalate	
Bis (2-chloroethoxy) methane	<11.	4-Chlorophenyl-phenylether	
2,4-Dichlorophenol		Fluorene	
1,2,4-Trichlorobenzene		4-Nitroaniline	<54.
Naphthalene		4,6-Dinitro-2-methylphenol	<54.
4-Chloroaniline		N-Nitrosodiphenylamine	<11.
Hexachlorobutadiene		4-Bromophenyl-phenylether	<11.

Authorized: Monika Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300 Box 4942 / Syracuse NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

Semivolatile Organics
Method 8270

CLIENT MAESTRI SITE JOB NO. 3213.008.517

DESCRIPTION Geddes, NY
Equipment Blank MATRIX: Water

SAMPLE NO. W5331 DATE COLLECTED 8-7-95 DATE RECEIVED 8-8-95

DATE EXTRACTED 8-9-95 DATE ANALYZED 8-24-95

Hexachlorobenzene	<11.	Benzo (a) anthracene	<11.
Pentachlorophenol	<54.	**Chrysene**	
Phenanthrene	<11.	Bis (2-ethylhexyl) phthalate	
Anthracene		**Di-n-octylphthalate**	
Di-n-butylphthalate		Benzo (b) fluoranthene	
Fluoranthene		**Benzo (k) fluoranthene**	
Pyrene		Benzo (a) pyrene	
Butylbenzylphthalate		**Indeno (1,2,3-cd) pyrene**	
3,3'-Dichlorobenzidine	<22.	Dibenz (a,h) anthracene	
		Benzo (g,h,i) perylene	

Comments:

Methodology: EPA Target Compound List By 8270, SW-846 November 1986, 3rd Edition

Certification No.: 10155

Units: µg/l

Authorized: Monica Santucci

Date: August 31, 1995

O'Brien & Gere Laboratories, Inc., *an O'Brien & Gere Company*
5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200