

Attachment 6a

**GZA GeoEnvironmental of New York
November 1992, Environmental Data Report**



**ENVIRONMENTAL DATA REPORT
20 PRUYNE STREET
BAINBRIDGE, NEW YORK**

PREPARED FOR:
Northeast Treaters, Inc.
Belchertown, Massachusetts

PREPARED BY:
GZA GeoEnvironmental of New York
Rochester, New York

November 1992
File: 19038

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November 2, 1992
File: 19038



Northeast Treaters, Inc.
201 Old Springfield Road
P.O. Box 1068
Belchertown, MA 01007

Attention: Mr. David A. Reed, President

Re: Environmental Data Report
Perry Builders Site
Bainbridge, New York

Patton Professional Center
3699 West Henrietta Rd.
Rochester, New York
14623
716-359-0160
FAX 716-359-0162

Dear Mr. Reed:

In accordance with our revised proposal dated October 14, 1992, GZA GeoEnvironmental of New York (GZA) is pleased to submit this data report regarding environmental conditions at the above-referenced site (Site). This report was prepared in accordance with our contract Terms and Conditions included in Appendix A and the Limitations in Appendix B.

BACKGROUND, PURPOSE AND SCOPE OF WORK

GZA was retained by Northeast Treaters, Inc. to complete an environmental site assessment at the Perry Builder's Site, 20 Pruyne Street, Bainbridge, New York. Northeast Treaters, Inc. is contemplating purchasing the Site or entering into an agreement with the current owners to pressure treat wood on behalf of Northeast Treaters, Inc. The Site is currently owned by Perry Builders, Inc. of Henderson, North Carolina.

The purpose of GZA's work was to complete a limited program of environmental sampling and laboratory chemical analyses to obtain data that would provide an indication as to whether a release(s) of the wood treating product CCA may have occurred at the Site.

To accomplish the stated purpose, GZA's scope of work focused on collecting samples from the environment outside the existing building area and completing laboratory chemical analyses for chromium, copper and arsenic. Other items typically associated with a site assessment (such as a review of the past history of site use, a review of

regulatory agency files, an evaluation of underground and above-ground storage tanks on the Site, or an evaluation of impacts from off-site sources, etc.) were beyond the scope of this study.



EXISTING ON-SITE MONITORING WELLS

GZA observed a total of five existing monitoring wells on the Site. Four of the wells were installed in 1990 for Perry Builders (MW-1 through MW-4). As shown on Figure 1, these wells are located north of the building along an east-west trending line. Based on topography, they may be hydraulically upgradient of the wood treating operations of the Site. The fifth well (MW-21) was installed on the Perry Builders property as part of environmental studies completed by others for the Borden Chemical site east of the Site. No logs were readily available regarding the construction details for these wells (e.g., the depths of the screened interval, well construction materials, the geologic zone being monitored, etc). Based on GZA's observations, well MW-2 appeared to be constructed with a section of 6-inch diameter steel casing set in the ground. Well MW-21 had 2-inch diameter PVC well materials but its construction details are unknown. It is not known if these wells were constructed with a filter pack to reduce inflow of sediments into the wells. Since insufficient information is known about the construction of these wells, the reliability of data provided by these wells (e.g., water levels and groundwater quality) is uncertain.

RECENTLY INSTALLED MONITORING WELLS

As part of this study, GZA installed two additional monitoring wells (GZ-1 and GZ-2) on the suspected hydraulic downgradient side of the Site's manufacturing area (see Figure 1). Test borings and monitoring well installations were completed by Buffalo Drilling Company of Buffalo, New York and their work was observed by GZA personnel. Both test borings were advanced to a depth of 16 feet and split-spoon soil samples were recovered at 5 foot intervals. The explorations encountered 9 to 10 feet of miscellaneous granular fill with wood fragments overlying silty clay. The wells were constructed using 2-inch diameter PVC with threaded flush-joint couplings. A sand filter pack was installed in the annular space between the well screen and formation soil. GZA personnel prepared logs that document the subsurface conditions encountered and the well installations completed. These logs and an accompanying legend are provided in Appendix C.



ENVIRONMENTAL SAMPLING

On October 19, 1992, GZA collected a total of 12 soil, groundwater and sediment samples for subsequent laboratory analyses. Sampling locations are shown on Figure 1. All samples were packed in an ice-filled cooler and shipped to the analytical laboratory on the same day the samples were collected. Chain of custody protocols were followed for sample handling and shipment.

Groundwater Samples

Groundwater samples were collected from four wells; two of the existing wells (MW-21 and MW-2) and the two recently installed wells (GZ-1 and GZ-2). Water levels were measured in the wells and the data are provided in Table 1. Prior to sampling, the wells were purged of at least three well volumes of water, or until dry, to promote an influx of "fresh" groundwater. During groundwater sampling, field measurements were made for pH, temperature and specific conductance. The groundwater samples were placed in pre-cleaned 250 milliliter plastic containers provided by the analytical laboratory. Nitric acid was added to the groundwater samples as a preservative in preparation for the laboratory analyses for metals.

Groundwater samples obtained from the two recently installed wells, GZ-1 and GZ-2, were relatively clear. However, the samples obtained from the existing wells, MW-21 and MW-2, contained significant amounts of silt in spite of attempts to obtain clear samples.

Surface Water/Sediment Samples

GZA collected two surface water/sediment samples (SW-1 and SW-2) from the brook that flows through the western portion of the Site. Sample SW-1 was obtained from the upstream end of the brook where it enters the Site and sample S-2 was obtained at the downstream end leaving the Site. The samples were placed in pre-cleaned 250 milliliter plastic jars and preserved with nitric acid.

Surficial Soil Samples

Surficial soil samples were collected from the six locations (S-1 through S-6) shown on Figure 1. Samples were obtained from exterior wood storage areas subjected to forklift traffic entering and leaving the treatment facility (S-1 and S-6), from a fill area to the south of the building (S-5), from swales and areas of poor drainage near the building where sediments apparently accumulated (S-3 and S-4) and from a soil area assumed to have relatively low exposure to the wood treating operation (S-2). The

samples were obtained at depths between 1 and 6 inches below the ground surface. The samples were placed in 120 milliliter glass jars provided by the analytical laboratory.



LABORATORY CHEMICAL ANALYSES

Laboratory chemical analyses were completed by Matrix Analytical, Inc. (Matrix) of Hopkinton, Massachusetts. Each of the samples was analyzed for the following parameters:

- Total chromium
- Total copper
- Total arsenic

Appendix D includes a copy of the laboratory report by Matrix that references the analytical methods used, the results of the analyses, and quality control data.

EVALUATION OF DATA

Table 2 provides a summary of the field and laboratory data obtained during GZA's recent study. Analytical testing results from the groundwater samples suggest the highest concentrations are found in MW-21 and MW-2, the existing and apparently upgradient locations. Concentrations for arsenic, chromium and copper in groundwater from these wells exceed New York State groundwater (Class GA) standards. [Note: Class GA standards are intended for groundwater used as a drinking water source.] Concentrations of chromium, copper and arsenic in the groundwater of the recently installed wells (GZ-1 and GZ-2 which are hydraulically side gradient and/or downgradient locations) are near or below Class GA standards. The elevated concentrations measured in MW-21 and MW-2 could be the result of a relatively high amount of sediment within the samples (i.e., compared to the samples from the GZ wells), or the result of a release of these compounds in this area or upgradient. As such, insufficient information is available to assess the Site's impact on the groundwater at the Site.

The data for surface water/sediment sampling locations SW-1 and SW-2 show that the concentrations of chromium, copper and arsenic in the surface water sediments appeared to increase from SW-1 to SW-2. This suggests that the brook is impacted by Site activities as it flows through the western portion of the Site. However, the downstream concentrations measured do not exceed NYSDEC draft clean-up guidelines for soils.



A background sample (S-2) was collected in an area away from suspected wood treating operations to evaluate potential impact to surficial soils. As shown on Table 2, the chromium, copper and arsenic concentrations are higher in samples S-1 and S-3 through S-6 than that measured in S-2. Samples S-3 and S-4 (both sediment samples collected from drainage swales) appear to be the most impacted. It is possible that these samples represent the accumulation of contaminants in the swales following precipitation and runoff from a past release(s) at the Site. Contaminant concentrations are elevated, to a lesser extent, in S-1, S-5 and S-6. It should be noted that the surface soil at S-1 is supposedly upgradient of the MW-1 through MW-4 series wells, which suggests on-site activities have impacted the environment at the Site upgradient of MW-2.

Published background concentrations for chromium, copper and arsenic in soils in the south-central New York State area and NYSDEC draft clean-up guidelines for soil are also summarized in Table 2 (see References 1 and 2). As shown in Table 2, the contaminant concentrations measured in the surface soils and sediments (at locations except S-3 and S-4) are within, or slightly above the range of concentrations naturally occurring in the south-central New York state area, but below NYSDEC draft clean-up guidelines. However, the swale areas (S-3 and S-4) appear to indicate an accumulation of arsenic and copper above background concentrations.

In summary, GZA's findings suggest that the surface water/sediment, groundwater and surface soil may be impacted by current site activities. However, it doesn't appear that the concentrations measured in the soil and sediments will require remediation based on published NYSDEC guidelines. The impact of chromium, copper and arsenic on the groundwater is uncertain due to the apparent sediments in existing wells MW-21 and MW-2 and the lack of information regarding groundwater flow conditions.

If Northeast Treaters, Inc. elects to pursue this transaction further, we recommend that additional environmental studies be completed to evaluate the potential for contamination from other sources (e.g., past use of the Site for plastic manufacturing, underground storage tanks, off-site sources, etc.) and to further define conditions at this Site (e.g. groundwater flow conditions, sedimentation tank contents, etc.).

We trust this data report meets your current needs. GZA has appreciated the opportunity to work with Northeast Treaters, Inc. on this project. If you should have any questions or require further assistance, please call.

Very truly yours,

GZA GEOENVIRONMENTAL OF NEW YORK



Vernon R. Kokosa, P.E.
Senior Project Manager



Raymond L. Kampff
Associate Principal



Michael J. Mann, P.E.
Consultant/Reviewer

VRK/st

Enclosures: References
Tables 1-2
Figure 1
Appendices A-D

REFERENCES

- 1) Schacklette and Boerngen, "Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States" U.S. Geological Survey Professional Paper 1270, United States Government Printing Office, Washington, D.C., 1984.
- 2) New York State Department of Environmental Conservation, "Draft Cleanup Policy and Guidelines", Cleanup Standards Task Force, Albany, New York, October 1991.

TABLES

TABLE 1 - SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS

| Well Location | Reference Point | Stickup (Depth Reference Point to Ground Surface) | Depth from Reference Point to Bottom of Well | 10/19/92 | |
|---------------|---------------------|---|--|-------------------------------------|-------------------------------------|
| | | | | Depth to Water from Reference Point | Depth to Water Below Ground Surface |
| MW-1 | Top of Steel Casing | 1.35' | 10.0' | 5.69' | 4.34' |
| MW-2 | Top of Steel Casing | 0.90' | 9.5' | 5.30' | 4.40' |
| MW-3 | Top of Steel Casing | 1.30' | 13.9' | 7.67' | 6.37' |
| MW-4 | Top of Steel Casing | 2.30' | 16.1' | 8.13' | 5.83' |
| GZ-1 | Top of PVC Casing | 3.00' | 17.5' | 8.25' | 5.25' |
| GZ-2 | Top of PVC Casing | 3.30' | 17.5' | 9.96' | 6.66' |
| MW-21 | Top of PVC Casing | 2.76' | 18.4' | 7.84' | 5.08' |

TABLE 2 – SUMMARY OF ANALYTICAL DATA

PERRY BUILDERS ESA
 BAINBRIDGE, NEW YORK
 Project No: 19038

| Groundwater Samples | | | | | | |
|------------------------|------------------------------------|------------------------|------------------------------|-------|-------|-------|
| Parameters | NYS Drinking Water Standard (mg/l) | Detection Limit (mg/l) | Sample Locations on 10-19-92 | | | |
| | | | MW-21 | MW-2 | GZ-1 | GZ-2 |
| Total Arsenic (mg/l) | 0.025 | 0.005 | 0.094 | 0.509 | 0.018 | 0.026 |
| Total Chromium (mg/l) | 0.050 | 0.005 | 0.105 | 0.800 | ND | 0.007 |
| Total Copper (mg/l) | 0.20 | 0.04 | 0.28 | 1.08 | ND | ND |
| pH (Standard Units) | - | - | 7.7 | 8.2 | 7.3 | 7.4 |
| Temperature (C) | - | - | 14.0 | 14.5 | 15.0 | 14.0 |
| Spec. Cond. (umhos/cm) | - | - | 210 | 70 | 205 | 240 |








| Surface Water/Sediment Samples | | | |
|--------------------------------|-------------------------|------------------------------|------|
| Parameters | Detection Limit (mg/kg) | Sample Locations on 10-19-92 | |
| | | SW-1 | SW-2 |
| Total Arsenic (mg/kg) | 0.5 | 12.2 | 24.7 |
| Total Chromium (mg/kg) | 0.5 | 15.0 | 26.0 |
| Total Copper (mg/kg) | 4.0 | 8.0 | 26 |

| Surface Soil Samples | | | | | | | | | |
|------------------------|---|--|-------------------------|--|------|------|------|------|------|
| Parameters | Background levels in Soils for South Central New York (2) (mg/kg) | NYSDEC Clean-up Guidelines (3) (mg/kg) | Detection Limit (mg/kg) | Sample Locations on 10-19-92 (Concentrations in mg/kg) | | | | | |
| | | | | S-1 | S-2 | S-3 | S-4 | S-5 | S-6 |
| Total Arsenic (mg/kg) | 10-16 | 80 | 0.5 | 23.2 | 6.9 | 51.9 | 71.5 | 13.3 | 33.5 |
| Total Chromium (mg/kg) | 30-50 | 8000 (4) 400 (5) | 0.5 | 23.0 | 16.5 | 52.0 | 62.0 | 15.0 | 28.5 |
| Total Copper (mg/kg) | 15-30 | No Stand. | 4.0 | 37 | 10 | 58 | 65 | 47 | 42 |

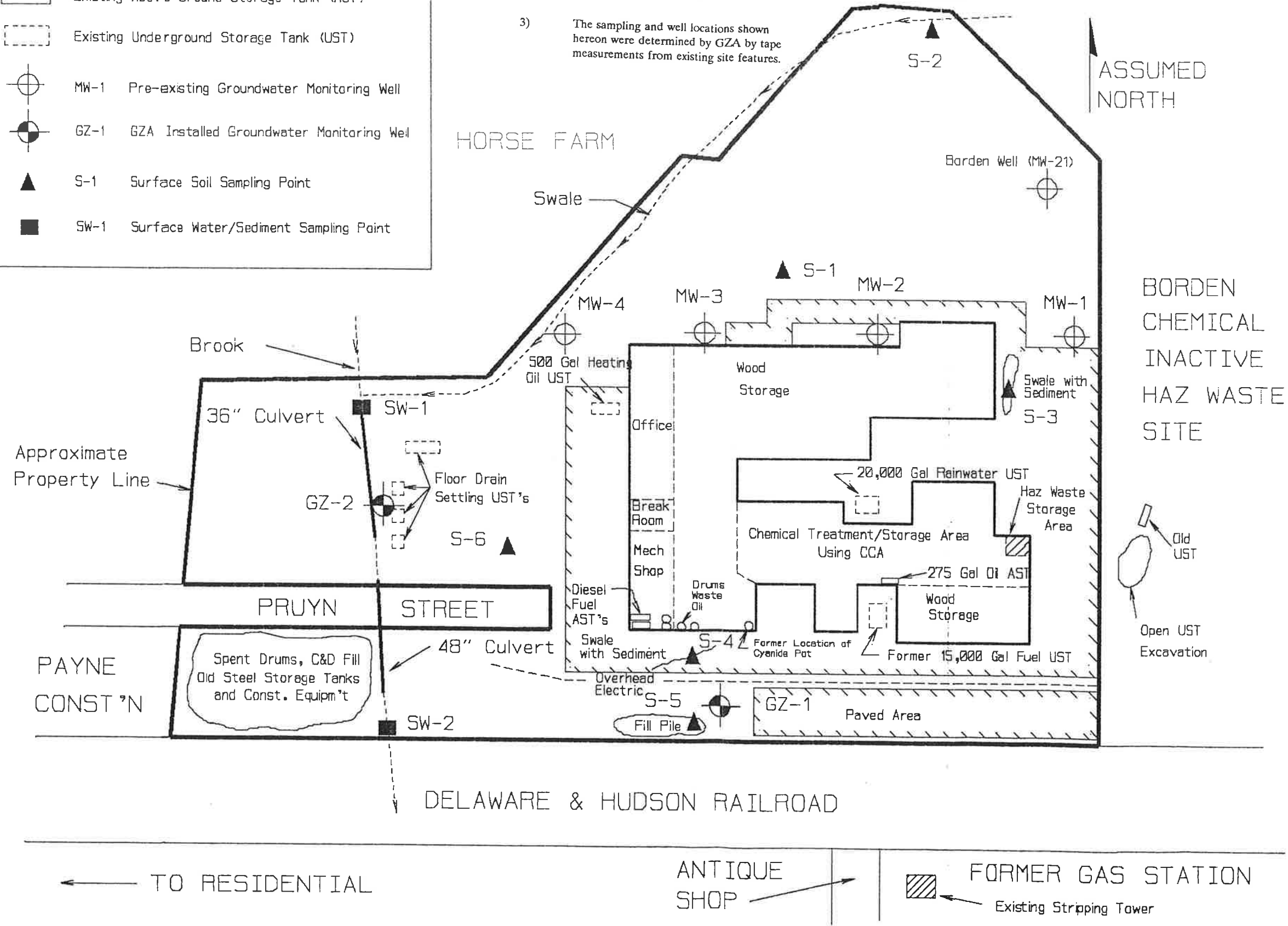
- (1) Laboratory analyses completed by Matrix Analytical, Inc. See Report in App. D
- (2) See Reference #2 for Source document on Background levels in Soils for Bainbridge area
- (3) See Reference #1 for Source document for NYSDEC Clean-up Guidelines
- (4) Indicates guideline for trivalent chromium
- (5) Indicates guideline for hexavalent chromium

FIGURES

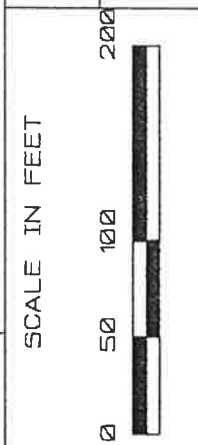
LEGEND

-  Existing Paved Area (Concrete or Asphalt)
-  Existing Above Ground Storage Tank (AST)
-  Existing Underground Storage Tank (UST)
-  MW-1 Pre-existing Groundwater Monitoring Well
-  GZ-1 GZA Installed Groundwater Monitoring Well
-  S-1 Surface Soil Sampling Point
-  SW-1 Surface Water/Sediment Sampling Point

- ### NOTES
- 1) Base plan adapted from an untitled plan provided by Perry Builders, Inc. which was compiled from the Town of Bainbridge Tax Map for Lot No. 6 modified by Perry Builders to indicate the locations of existing structures.
 - 2) The locations of selected utilities and underground storage tanks shown hereon were adapted from a plan entitled "American Plastics Corporation - Sewage, Water Lines, Etc. - Under Grade" dated October 8, 1955 and revised September 1967. Additional underground utilities are present at the Site which are not shown on this plan.
 - 3) The sampling and well locations shown hereon were determined by GZA by tape measurements from existing site features.



ASSUMED NORTH



| | | |
|---|--|---------------------|
| Client: NORTHEAST TREATERS, INC. BELCHERTOWN, MA | Field Activities Completed on 10/19/92 | 11/2/92 |
| | Revised Scope of Work | 10/12/92 |
| Project: PERRY BUILDERS ESA BAINBRIDGE, NY | REV No. | DESCRIPTION |
| | DESIGNED BY: DPB | DRAWN BY: DPB |
| | CHECKED BY: VRK | DATE: NOVEMBER 1992 |
| MONITORING WELL & SAMPLING LOCATION PLAN | REVIEWED BY: RLK | DATE: NOVEMBER 1992 |
| | GZA GeoEnvironmental of New York | |
| PROJECT No. R92-724 | FIGURE No. 1 | |

APPENDIX A
TERMS AND CONDITIONS

TERMS & CONDITIONS OF ENGAGEMENT

The Terms and Conditions and the "Proposal" dated October 14, 1992 submitted by GZA GeoEnvironmental of New York ("we" or "us") to Northeast Treaters, Inc. ("you"), make up the "Agreement" between us. THESE TERMS CONTAIN LIMITATIONS IN OUR LIABILITY TO YOU, AND OTHERS, FOR ANY CLAIMS ARISING OUT OF OUR SERVICES:

1. SERVICES: THE "SERVICES" FOR THE "PROJECT", "SITE" AND ANY OTHER CONSULTING SERVICES WE MAY PERFORM REFERRED TO IN OUR PROPOSAL WILL BE PERFORMED FOR YOUR EXCLUSIVE USE. OUR SERVICES ADDRESS CURRENT CONDITIONS. ANY DELAYED USE OF THE RESULTS OF OUR SERVICES WILL REQUIRE UPDATES. YOU ACKNOWLEDGE, BY ENTERING INTO THIS AGREEMENT, THE INHERENT RISKS AND UNCERTAINTIES ASSOCIATED WITH THE INVESTIGATION OF SUBSURFACE CONDITIONS FOR CONSTRUCTION PURPOSES AND ASSESSMENT OR REMEDIATION OF HAZARDOUS SUBSTANCES. YOU HAVE BEEN ADVISED, AND ACKNOWLEDGE, THAT OUR DECISIONS ARE JUDGMENTS BASED UPON LIMITED DATA RATHER THAN UPON SCIENTIFIC FACT.

2. PAYMENT: INVOICES WILL BE SUBMITTED TO YOU MONTHLY, OR SEMI-MONTHLY, AT OUR DISCRETION. PAYMENT IS DUE WITHIN THIRTY (30) DAYS FROM INVOICE DATE. AN INVOICE REMAINING UNPAID AFTER THIRTY (30) DAYS WILL BEAR INTEREST AT THE LESSER OF THE MAXIMUM LAWFUL ANNUAL INTEREST RATE OR 1-1/2% PER MONTH. IF YOU DO NOT PAY AN INVOICE WITHIN THIRTY (30) DAYS, WE MAY, THEREAFTER, ON TEN (10) DAYS PRIOR WRITTEN NOTICE, ELECT TO TERMINATE ALL FURTHER SERVICES, WITHOUT INCURRING ANY LIABILITY TO YOU. ON TERMINATION OF SERVICES FOR NON-PAYMENT, WE RETAIN ALL OUR RIGHTS AND CLAIMS. IF ANY

STATE IMPOSES A SERVICE, SALES OR SIMILAR TAX ON OUR SERVICES, YOU WILL PAY THAT TAX AS AN ADDITIONAL ITEM ON OUR INVOICES.

IF WE TERMINATE SERVICES BECAUSE OF NON-PAYMENT, YOU WILL PAY US FOR ALL SERVICES AND EXPENSES, ACCORDING TO THE AGREEMENT, THROUGH THE TERMINATION DATE, PLUS EXPENSES OF TERMINATION, INTEREST AND COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES. ANY OBJECTION TO AN INVOICE MUST BE MADE BY YOU, IN WRITING, WITHIN TEN (10) DAYS, OR THE OBJECTION WILL BE WAIVED.

3. INSURANCE: WE MAINTAIN THE FOLLOWING INSURANCE: WORKERS COMPENSATION WITH STATUTORILY REQUIRED LIMITS; COMPREHENSIVE GENERAL LIABILITY; AUTO-MOBILE (VARIOUS COVERAGES); PROFESSIONAL LIABILITY, ENVIRONMENTAL IMPAIRMENT LIABILITY AND CONTRACTORS POLLUTION LIABILITY. WE FURNISH YOU CERTIFICATES OF INSURANCE UPON YOUR REQUEST.

OUR LIABILITY FOR CLAIMS AND EXPENSES IS LIMITED TO THE AMOUNTS, LIMITS, EXCLUSIONS AND CONDITIONS OF THE INSURANCE MAINTAINED BY US. A SEPARATE LIMIT OF OUR LIABILITY FOR NEGLIGENT PROFESSIONAL ACTS, ERRORS OR OMISSIONS OR BREACH OF CONTRACT IS SET OUT IN SECTION 15. WE WILL NOT BE RESPONSIBLE FOR CLAIMS CAUSED BY YOUR NEGLIGENCE OR BY THAT OF ANY PERSON OR ENTITY FOR WHOSE CONDUCT WE ARE NOT LEGALLY LIABLE. YOU MAY ELECT TO

APPLY FOR HIGHER INSURANCE COVERAGES THROUGH PROJECT-SPECIFIC INSURANCE. IF PROJECT INSURANCE IS PROVIDED, YOU WILL PAY THE ENTIRE PREMIUM COST.

4. RIGHT OF ENTRY: YOU HAVE GIVEN US THE RIGHT TO ENTER UPON THE SITE SO THAT WE AND OUR CONSULTANTS AND SUBCONTRACTORS CAN PERFORM BORINGS, STUDIES, EXPLORATIONS AND, IF SPECIFIED, REMEDIATION WORK. IF ANY SERVICES ARE TO BE CARRIED OUT ON PROPERTY OR FACILITIES NOT OWNED OR OCCUPIED BY YOU, YOU REPRESENT TO US THAT THE OWNER AND OCCUPANT HAVE GIVEN YOU PERMISSION FOR US TO ENTER AND PERFORM THE SERVICES UNDER THE CONDITIONS STATED IN SECTION 5. YOU WILL GIVE US REASONABLE EVIDENCE CONFIRMING SUCH PERMISSION, IF REQUESTED.

5. SUBSURFACE EXPLORATIONS:

(A) NORMAL DISTURBANCE - EQUIPMENT USED IN PERFORMING OUR SERVICES WILL, TO SOME DEGREE, AFFECT, ALTER OR DAMAGE THE SITE SURFACES, BUILDINGS, STRUCTURES, VEGETATION, FACILITIES AND SUBSURFACE INSTALLATIONS (COLLECTIVELY "IMPROVEMENTS"). YOU ACCEPT SUCH RISKS. WE WILL EXERCISE REASONABLE CARE TO LIMIT SUCH DAMAGE. HOWEVER, WE DO NOT UNDERTAKE THE RESTORATION OF SUCH DAMAGE. ANY COSTS OF RESTORATION OF IMPROVEMENTS WILL BE BORNE BY YOU. THEY HAVE NOT BEEN INCLUDED IN OUR FEES OR PRICES.

(B) UNDERGROUND IMPROVEMENTS -

WE WILL EXERCISE REASONABLE CARE IN SEEKING TO LOCATE UNDERGROUND IMPROVEMENTS. WE WILL CONTACT THE LOCAL PUBLIC AGENCIES OR PRIVATE FIRMS, IF ANY, WHICH COORDINATE SUBSURFACE UTILITY INFORMATION AND WILL REVIEW PLANS AND DATA WHICH THEY PROVIDE IN RESPONSE TO OUR INQUIRIES. YOU UNDERTAKE TO GIVE US ANY PLANS AND OTHER INFORMATION IN YOUR POSSESSION CONCERNING THE SITE. ON

NONOWNED SITES, YOU WILL REQUEST UTILITY LOCATIONS AND OTHER PLANS FROM SITE OWNER AND PROVIDE THEM TO US. IF, DESPITE ALL SUCH AVAILABLE PLANS AND INFORMATION, ALL UNDERGROUND IMPROVEMENTS CANNOT BE LOCATED, THERE IS SOME RISK TO YOU OF DAMAGE TO THESE IMPROVEMENTS. YOU AGREE TO ACCEPT THE RISKS OF DAMAGE AND EXPENSE ASSOCIATED WITH REPAIR OR RESTORATION OF ANY IMPROVEMENTS NOT DISCLOSED BY PLANS AND INFORMATION PROVIDED TO US BY THOSE SOURCES.

6. SAMPLES/MANIFESTS: UNLESS YOU GIVE US WRITTEN INSTRUCTIONS PRIOR TO OUR BEGINNING FIELD WORK, WE WILL DISPOSE OF ALL SOIL, ROCK, WATER AND ANY OTHER SAMPLES THIRTY (30) DAYS AFTER WE SUBMIT OUR INITIAL REPORT.

IF ANY SAMPLES CONTAIN HAZARDOUS SUBSTANCES, WE WILL DISPOSE OF THOSE (1) THROUGH A QUALIFIED WASTE DISPOSAL CONTRACTOR OR (2), UPON YOUR TIMELY WRITTEN INSTRUCTION, WE WILL SHIP THEM BY A LICENSED TRANSPORTER TO A LICENSED DISPOSAL FACILITY. IF YOU GIVE US TIMELY WRITTEN INSTRUCTIONS TO RETAIN SAMPLES BEYOND SUCH THIRTY (30) DAYS, WE WILL ARRANGE TO STORE THEM FOR YOU. YOU WILL PAY US OUR ADDITIONAL STANDARD LABORATORY FEES FOR OUR STORAGE AND TRANSPORT OF SAMPLES IN ACCORDANCE WITH YOUR INSTRUCTIONS. WE DO NOT UNDERTAKE ANY RESPONSIBILITY OR LIABILITY FOR TRANSPORT OR DISPOSAL OF HAZARDOUS OR TOXIC SUBSTANCES. WE WILL NOT, UNDER ANY CIRCUMSTANCES, SIGN MANIFESTS FOR SUCH SUBSTANCES. YOU AGREE THAT WE ARE NOT A HANDLER, GENERATOR, OPERATOR, TREATER OR STORER, TRANSPORTER OR DISPOSER OF HAZARDOUS OR TOXIC SUBSTANCES FOUND OR IDENTIFIED AT A SITE. ANY REQUIRED ARRANGEMENTS FOR TRANSPORT, TREATMENT, STORAGE AND DISPOSAL OF SUCH SUBSTANCES (INCLUDING SAMPLES NOT SO REMOVED) WILL BE MADE BY OTHERS IN THEIR NAME.

DEFINITION OF HAZARDOUS SUBSTANCES:

MATERIALS, POLLUTANTS OR ASBESTOS, WHICH ARE A DANGER TO PUBLIC HEALTH, SAFETY OR THE ENVIRONMENT, INCLUDING SUBSTANCES DEFINED IN THE FEDERAL WATER POLLUTION CONTROL ACT; FEDERAL COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA); RESOURCE CONSERVATION AND RECOVERY ACT AND IN STATE AND LOCAL LAWS, CODES AND REGULATIONS.

7. CONSTRUCTION OBSERVATION SERVICES:

IF OUR SERVICES INCLUDE OBSERVATION OF CONSTRUCTION ON A SITE, WE WILL CARRY OUT OUR OBSERVATION IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL PRACTICES OF SIMILAR ENGINEERS AND CONSULTANTS. OUR SERVICES WILL NOT INCLUDE ANY SUPERVISION OF ANY CONTRACTOR OR SUBCONTRACTOR OTHER THAN OUR OWN. YOUR CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT AND COMPLIANCE BY IT, AND ITS SUBCONTRACTORS, AND CONTRACT PLANS, SPECIFICATIONS AND SAFETY REQUIREMENTS FOR ALL SITE WORKING CONDITIONS, AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS. OUR OBSERVATIONS AND MONITORING SERVICES DO NOT INCLUDE REVIEW OF THE SUFFICIENCY OF THE CONTRACTOR'S HEALTH AND SAFETY MEASURES AT OR NEAR THE CONSTRUCTION SITE.

8. OWNERSHIP OF DOCUMENTS:

EVERYTHING WE PREPARE, AS INSTRUMENTS OF SERVICE, WHETHER REPORTS, BORING LOGS, FIELD DATA AND NOTES, LABORATORY TESTS AND DATA, CALCULATIONS, ESTIMATES OR OTHER DOCUMENTS OR MEMORANDA, WILL REMAIN OUR SOLE PROPERTY. REPORTS AND OTHER WORK PRODUCT FURNISHED BY US WHICH ARE NOT PAID FOR PURSUANT TO OUR INVOICES WILL BE RETURNED

TO US, ON OUR REQUEST, AND WILL NOT BE USED BY YOU OR ANY OTHERS FOR ANY PURPOSE. THE REPORTS AND OTHER MATERIALS WE PREPARE ARE NOT SUITABLE FOR LATER REUSE BY YOU OR OTHERS ON THE PROJECT, ANY EXTENSION, OR OTHER SITES OR PROJECTS, NOR AT FUTURE TIMES NOT CONTEMPLATED BY OUR REPORTS. IF YOU REUSE ANYTHING WE PREPARE, OR IF OTHERS SEEK TO USE THEM, IT WILL BE AT YOUR, AND THEIR, SOLE RISK, WITHOUT LIABILITY ON OUR PART. IN CASE OF SUCH UNAUTHORIZED RE-USE, YOU WILL HOLD US HARMLESS FOR ALL CLAIMS.

9. DISCLOSURE OF HAZARDS: TAKING INTO ACCOUNT THE INFORMATION YOU PROVIDE US, WE WILL TAKE REASONABLE PRECAUTIONS FOR THE HEALTH AND SAFETY OF OUR PERSONNEL WHILE AT THE SITE. BEFORE YOU DIRECT US TO PROCEED WITH OUR SERVICES, YOU WILL GIVE US ANY INFORMATION IN YOUR POSSESSION REGARDING THE EXISTENCE OF ANY HAZARDOUS SUBSTANCES UNDER OR ADJACENT TO THE SITE. THIS INCLUDES ALL PERMITS, MANIFESTS AND ANY RECORDS OF COMPLIANCE, OR NON-COMPLIANCE, WITH LAW. IF YOU, YOUR COUNSEL OR ANY OTHER OF YOUR REPRESENTATIVES FAIL TO FURNISH US WITH SUCH INFORMATION, TO THE EXTENT IT IS IN YOUR POSSESSION, AND THE POSSIBLE PRESENCE OF SUCH HAZARDOUS SUBSTANCES IS NOT DISCLOSED IN THE INFORMATION YOU PROVIDE TO US, YOU WILL BE RESPONSIBLE TO US, AND TO ANY CLAIMANTS, FOR PROPERTY DAMAGES AND CONSEQUENTIAL DAMAGES, AS SPELLED OUT IN SECTION 14 AND FOR ANY CLAIMS, DEMANDS, SUITS AND LIABILITIES FOR PERSONAL INJURY, DISEASE, MEDICAL EXPENSES (INCLUDING HEALTH MONITORING AND DEATH CLAIMS).

10. UNANTICIPATED HAZARDOUS MATERIALS: IF HAZARDOUS SUBSTANCES, NOT ANTICIPATED IN THE SCOPE OF WORK, WHICH ARE A THREAT TO HEALTH, SAFETY OR THE ENVIRONMENT ARE ENCOUNTERED IN THE COURSE

OF OUR SERVICES, WE CAN SUSPEND OUR SERVICES. WE WILL COOPERATE WITH YOU IN ORDER TO WORK OUT MUTUALLY SATISFACTORY REVISIONS TO THE SCOPE OF WORK, ESTIMATED COST AND TIME NOW IN OUR AGREEMENT TO FIT THE CONDITIONS. IF WE DO NOT REACH MUTUAL AGREEMENT ON SUCH REVISIONS, WE CAN TERMINATE OUR SERVICES ON GIVING YOU TEN (10) DAYS WRITTEN NOTICE. YOU WILL PAY US FOR ALL SERVICES AND EXPENSES THROUGH TERMINATION DATE IN ACCORDANCE WITH THIS AGREEMENT, IN THE CASE OF SUCH TERMINATION.

11. CONFIDENTIALITY: WE WILL NOT DISCLOSE INFORMATION ABOUT THE AGREEMENT, OUR SERVICES OR OUR REPORTS TO ANYONE EXCEPT ON YOUR WRITTEN INSTRUCTIONS. IF YOU PROVIDE US WITH CONFIDENTIAL INFORMATION ABOUT YOUR BUSINESS, WE WILL KEEP THAT INFORMATION CONFIDENTIAL EXCEPT TO THE EXTENT NECESSARY FOR (1) US TO PERFORM OUR SERVICES (2) TO COMPLY WITH PROFESSIONAL STANDARDS TO PROTECT PUBLIC HEALTH, SAFETY AND THE ENVIRONMENT AND (3) TO COMPLY WITH GOVERNMENTAL REGULATIONS AND COURT ORDERS. INFORMATION WHICH IS KNOWN TO THE PUBLIC, TECHNICAL INFORMATION WHICH WE MAY HAVE DEVELOPED INDEPENDENTLY OR ACQUIRED WITHOUT BREACH OF ANY DUTY, WILL NOT BE CONSIDERED CONFIDENTIAL.

12. DISCLOSURE: IF BY ORDER OF COURT, OR GOVERNMENTAL LAW OR REGULATIONS, ("ORDERS"), WE ARE REQUIRED TO DISCLOSE INFORMATION IN OUR POSSESSION, WE SHALL GIVE YOUR PROMPT NOTICE OF SUCH FACTS. THEREAFTER, WE MAY, WITHOUT LIABILITY TO YOU OR OTHERS, COMPLY WITH SUCH ORDERS. IF ANY CLAIMS ARE ASSERTED AGAINST US BECAUSE OF OUR COMPLIANCE, YOU WILL HOLD US HARMLESS FROM SUCH CLAIMS AND REASONABLE EXPENSE INCURRED, PROVIDED THAT OUR DISCLOSURE IS MADE UNDER A REASONABLE BONA FIDE BELIEF, OR

ON ADVICE OF COUNSEL, THAT DISCLOSURE IS REQUIRED BY LAW.

13. STANDARD OF CARE: WE SHALL, IN PERFORMING OUR SERVICES, EXERCISE THE SAME DEGREE OF CARE AND SKILL ORDINARILY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY QUALIFIED PROFESSIONALS AND CONSULTANTS UNDERTAKING SIMILAR WORK IN THE SAME LOCALITY AT THAT TIME. SUBSEQUENTLY EVOLVED STANDARDS WILL NOT BE APPLIED IN JUDGING OUR WORK. WE MAKE ONLY THIS AND NO OTHER WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED. WE WILL NOT BE LIABLE FOR THE INTERPRETATION, BY OTHERS, OF DATA OR INFORMATION WE DEVELOP.

14. THIRD PARTY CLAIMS: BY AUTHORIZING US TO PROCEED WITH THE SERVICES, YOU CONFIRM THAT WE HAVE NOT CREATED NOR CONTRIBUTED TO THE PRESENCE OF ANY HAZARDOUS SUBSTANCES OR CONDITIONS AT OR NEAR THE SITE. IN SEEKING OUR SERVICES TO ASSIST YOU IN DEALING WITH THE CONDITIONS EXISTING AT THE SITE, YOU ACKNOWLEDGE THAT, DURING THE COURSE OF OUR SERVICES, WE MAY NOT HAVE PROFESSIONAL LIABILITY, OR OTHER LIABILITY INSURANCE, OR MAY NOT BE ABLE TO OBTAIN SUCH INSURANCE AT REASONABLE COST COVERING CLAIMS INVOLVING THE ACTUAL OR POTENTIAL PRESENCE OF HAZARDOUS SUBSTANCES. THE COMPENSATION TO BE PAID TO US FOR OUR SERVICES, AND OUR POTENTIAL PROFIT, IS DISPROPORTIONALLY SMALL IN RELATION TO THE POTENTIAL RISK OF INJURY, LOSS OR DAMAGE FROM A RELEASE OF OR EXPOSURE TO SUCH SUBSTANCES OR CONDITIONS.

IN ACKNOWLEDGEMENT OF THE IMBALANCE BETWEEN OUR BENEFITS AND RISKS, YOU AGREE TO HOLD US, AND EACH OF OUR CONTRACTORS, SUBCONTRACTORS, CONSULTANTS, AGENTS, OFFICERS, DIRECTORS AND EMPLOYEES, HARMLESS AGAINST ALL CLAIMS FOR DAMAGES,

DIRECT OR CONSEQUENTIAL; ALL EXPENSES, COSTS OF EVERY KIND, DIRECT OR INDIRECT, LEGAL OR OTHERWISE IN CONNECTION WITH A RELEASE OF HAZARDOUS SUBSTANCES; BODILY INJURY, DISABILITY, DEATH, MEDICAL EXPENSES, PROPERTY DAMAGE AND OTHER EXPENSES AND ECONOMIC LOSS, ALLEGED TO HAVE BEEN CAUSED BY THE RELEASE, REMOVAL, REMEDIAL ACTION OR INVESTIGATION OF HAZARDOUS SUBSTANCES; AND ANY ASSESSMENT OF FINES OR PENALTIES RELATED TO HAZARDOUS SUBSTANCES OR THEIR REMEDIATION.

YOUR OBLIGATION TO INDEMNIFY US DOES NOT APPLY TO CLAIMS, DAMAGES, LOSSES OR RELEASES AND EXPOSURE TO POLLUTANTS WHICH ARE ADJUDICATED TO HAVE RESULTED FROM OUR GROSS NEGLIGENCE OR WILLFUL MISCONDUCT IN OUR PERFORMANCE OF THE SERVICES.

15. LIMITATION OF PROFESSIONAL LIABILITY: YOU AGREE THAT YOUR AGGREGATE MAXIMUM RECOVERY AGAINST US FOR ANY CLAIMS BASED ON THE PERFORMANCE OF OUR PROFESSIONAL SERVICES, WHETHER IN CONTRACT, TORT OR OTHERWISE, IS LIMITED TO THE GREATER OF \$50,000 OR THE AMOUNT OF FEES PAID TO US WITH RESPECT TO THIS AGREEMENT.

WE SHALL NOT BE LIABLE ON ANY BASIS FOR YOUR LOSS OF PROFITS, DELAY, DAMAGES OR ANY SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY TYPE.

YOU MAY ELECT TO INCREASE THE LIMIT OF LIABILITY FOR DAMAGES, UP TO \$100,000, IF YOU DO THE FOLLOWING: INDICATE BELOW THAT YOU ELECT TO INCREASE THE LIMIT TO ONE OF THE LEVELS DESIGNATED BELOW AND PAY THE ADDITIONAL FEES SHOWN OPPOSITE THE INCREASED LEVEL, PAYMENT TO BE MADE SIMULTANEOUSLY WITH THE EXECUTION OF THIS AGREEMENT.

THE ADDITIONAL CHARGE SERVES AS CONSIDERATION FOR OUR UNDERTAKING THE GREATER RISK INVOLVED IN PERFORMING SERVICES

FOR YOU UNDER AN INCREASED LIMIT OF LIABILITY FOR DAMAGES ABOVE \$50,000.

| <u>INCREASED LIMIT OF LIABILITY FOR DAMAGES</u> | <u>ADDITIONAL FEES</u> | <u>CLIENT MUST INITIAL</u> |
|---|------------------------|----------------------------|
| \$ 75,000 | \$1,000 | _____ |
| \$100,000 | 2,000 | _____ |

YOU AGREE THAT YOUR PAYMENT OF THE ADDITIONAL FEES DOES NOT CONSTITUTE A CHARGE FOR PLACEMENT OF ADDITIONAL PROFESSIONAL LIABILITY INSURANCE.

16. GOVERNING LAW; SEVERABILITY MODIFICATIONS; ASSIGNMENT: THIS AGREEMENT SHALL BE GOVERNED AND ENFORCEABLE IN ACCORDANCE WITH THE LAWS OF NEW YORK, THE STATE IN WHICH OUR PRINCIPAL OFFICE IS LOCATED, WHICH SHALL BE DEEMED THE PLACE OF CONTRACTING.

THE PROVISIONS OF THIS AGREEMENT ARE SEVERABLE. THE INVALIDITY OF ANY PROVISION SHALL NOT AFFECT THE VALIDITY AND ENFORCEABILITY OF ANY OTHER PROVISIONS. THIS AGREEMENT, MADE UP OF OUR PROPOSAL AND THESE TERMS AND CONDITIONS, CANNOT BE MODIFIED ORALLY, OR BY ANY COURSE OF CONDUCT, AND SHALL CONTROL OVER ANY INCONSISTENT OR CONTRARY PROVISIONS IN ANY PROPOSAL, CONTRACT FORM, PURCHASE ORDER OR OTHER DOCUMENT ISSUED BY YOU. THESE TERMS AND CONDITIONS SHALL SURVIVE THE COMPLETION, OR TERMINATION, OF OUR SERVICES FOR THE PROJECT. ANY ASSIGNMENT OF YOUR RIGHTS UNDER THIS AGREEMENT REQUIRES OUR PRIOR WRITTEN CONSENT.

APPENDIX B
LIMITATIONS

APPENDIX B

LIMITATIONS

1. GZA's site assessment was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions.
2. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the preliminary environmental site assessment. No other warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its site assessment.
3. This study and Report have been prepared on behalf of and for the exclusive use of Northeast Treaters, Inc. (Client), solely for use as an environmental evaluation of the site. This Report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor use by an other party in whole or in part, without the prior written consent of GZA. However, GZA acknowledges and agrees that the Report may be conveyed to the Lender and Title Insurer associated with the proximate transaction by our Client.
4. The observations described in this Report were made under the conditions stated therein. The conclusions presented in the Report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of services described, or the time and budgetary constraints imposed by Client. The work described in this Report was carried out in accordance with the attached Statement of Terms and Conditions.
5. In the event that bank counsel or title examiner for Client obtains information on environmental or hazardous waste issues at the site not contained in this Report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this Report.
6. Unless otherwise specified in the Report, GZA did not perform testing or analyses to determine the presence or concentration of asbestos or polychlorinated biphenyls (PCB's) or other hazardous materials at the Site, or in the environment at the Site. Additionally, this assessment did not include identification of potential asbestos containing building materials.

7. The purpose of this Report was to assess the physical characteristics of the subject site with respect to the presence in the environment of CCA contamination. No specific attempt was made to check on the compliance of present or past owners or operators of the Site with federal, state, or local laws and regulations, environmental or otherwise.
8. The conclusions and recommendations contained in this Report are based in part upon the data obtained from a limited number of soil and/or groundwater samples obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this Report.
9. Water level readings have been made in the test pits, borings, and/or observation wells at the times and under the conditions stated on the test pit or boring logs. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.
10. Chemical analyses have been performed for specific parameters during the course of this site assessment, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the Site.
11. The conclusions and recommendations contained in this Report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the Report. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors.

APPENDIX C

TEST BORING AND MONITORING WELL LOGS

| | | | | | | | | |
|--|------------|---|-------------|--|--------------|--------------------|----------------------------------|-------|
| GZA GEOENVIRONMENTAL OF NEW YORK 364 NAGEL DRIVE, BUFFALO, NEW YORK | | PROJECT _____ | | BORING No. _____ SHEET 1 OF _____ FILE No. _____ CHKD. BY _____ | | | | |
| ENGINEERS AND SCIENTISTS | | BORING LOCATION GROUND SURFACE ELEVATION _____ DATUM _____ | | START DATE _____ END DATE _____ | | | | |
| CONTRACTOR _____ DRILLER _____ GZA GEOENVIRONMENTAL REPRESENTATIVE _____ | | WATER LEVEL DATA | | | | | | |
| TYPE OF DRILL RIG _____ | | DATE | TIME | WATER | CASING | | | |
| CASING SIZE AND TYPE _____ | | | | | REMARKS | | | |
| OVERBURDEN SAMPLING METHOD _____ | | | | | | | | |
| ROCK DRILLING METHOD _____ | | | | | | | | |
| DEPTH | SAMPLE | | | | | SAMPLE DESCRIPTION | EQUIPMENT INSTALLATION LOG | NOTES |
| | BLOWS / 6" | NO. | DEPTH (FT.) | N-VALUE / RQD (%) | RECOVERY (%) | | | |
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ |
| 1 | | | | | | | | |

- ① Numbers in this column are the depth in feet below ground surface.
- ② Numbers in this column report the number of blows required to drive a split spoon sampler (1-3/8 inch inside diameter) 6 inches with a 140 pound hammer free falling 30 inches.
- WOH means that the static weight of the 140 pound hammer and the drilling rods attached to the split barrel sampler were sufficient to cause the sampler to advance 6 inches.
- WOR means the static weight of the drilling rods attached to the split barrel sampler was sufficient to cause the sampler to advance 6 inches.
- ③ The sample number and type are designated in this column.
e.g., S-1
 ↑ sample number
 | sample type
- S - Split Spoon Sample
U - Shelby Tube Sample
C - Rock Core Sample
- ④ The numbers in this column designate the depth, in feet, from the ground surface of the sample identified in column 3.
- ⑤ The Standard Penetration Test N-value, which is the sum of the blows recorded over the second and third 6 inch interval (column 2), is recorded in this column for soil samples. OB indicates an obstruction was encountered. R indicates that refusal was encountered. RQD, defined as the summation of all pieces of rock core greater than 4 inches in length divided by the length of the core run and expressed as a percentage, is reported for rock core samples in this column.
- ⑥ The values shown are the length of the soil or rock core sample recovered divided by the distance that the sampler was advanced, expressed as a percentage.
- ⑦ Description of soil samples include:
-- the relative density or consistency;
-- color;
-- a listing of the MAJOR and Minor soil components based on particle size distribution and plasticity;
-- moisture; and
-- other pertinent characteristics.
- For example: Medium dense, brown, fine to medium SAND, trace Silt, damp, stratified.
- Description of rock core samples include:
-- color, ROCK TYPE, hardness, weathering, texture, structure, discontinuity description, other features (FORMATION NAME; if known).
- For example: Dark gray, DOLOMITE, moderately hard, slightly weathered, fine to medium grained, thinly bedded, very closely spaced horizontal fractures throughout (LOCKPORT DOLOMITE).
- ⑧ Equipment installed within the borehole is graphically presented in this column. If no equipment was installed, this column is blank.
- ⑨ The materials used to construct the equipment installed in the borehole are verbally described in this column. If no equipment was installed, this column is blank. Alternatively, field measurements may be included in this column.
- ⑩ Pertinent observations made while advancing the test boring are identified in this column opposite the depth that the observation was made. The observation is explained

DESCRIPTION OF SOIL SAMPLES

1. Density or Consistency: The density or consistency listed is determined from the Standard Penetration Test N-value according to the following table:

| Density of Granular Soils | SPT N-Value | Consistency of Cohesive Soils |
|---------------------------|-------------|-------------------------------|
| Very Loose | 0-4 | <2 Very Soft |
| Loose | 4-10 | 2-4 Soft |
| Medium Dense | 10-30 | 4-8 Medium |
| Dense | 30-50 | 8-15 Stiff |
| Very Dense | >50 | 15-30 Very Stiff |
| | | >30 Hard |

2. Color: Visual
3. Soil Components

3.1 Description: The components of a soil sample are described by visually estimating the percentage of each component by weight of the total sample.

a. Major Component: The major soil component (>50 percent) is written with upper case letters for granular soil (e.g., SAND, GRAVEL) and a combination of upper and lower case letters for fine grained soil (e.g., Silty CLAY, Clayey SILT).

b. Minor Component: The minor soil components (≤50 percent) are written with the first letter of each soil type in upper case, and the remaining letters in lower case (e.g., Gravel, Silt). The minor components are identified and prefaced in the description based on the following percentages:

| Description | Percentage |
|-------------|------------|
| and | 35-50 |
| some | 20-35 |
| little | 10-20 |
| trace | 0-10 |

c. Note: The actual percentage of gravel soils may differ from that measured when sampling with a standard split spoon sampler because of the relatively small sampler diameter. Also, it is not possible to identify the presence of boulders and cobbles using a standard split spoon sampler.

d. Fill: Fill is material placed by other than natural processes. It is described by its major component(s) and additional significant components are listed. The word "FILL" follows the sample description.

3.2 Definitions

a. Granular Soil: A granular soil sample is defined by the following particle sizes as referenced to a standard sieve.

| Material | Standard Sieve Limit | |
|---------------------|----------------------|----------|
| | Upper | Lower |
| GRAVEL - coarse (c) | 3 inch | 3/4 inch |
| - fine (f) | 3/4 inch | No. 4 |
| SAND - coarse (c) | No. 4 | No. 10 |
| - medium (m) | No. 10 | No. 40 |
| - fine (f) | No. 40 | No. 200 |

b. Fine Grained Soil: A fine grained soil is defined as being finer than a No. 200 sieve and it is described by its plasticity as follows:

| Material | Degree of Plasticity |
|-------------|----------------------|
| SILT | Nonplastic |
| Clayey SILT | Slight |
| SILT & CLAY | Low |
| CLAY & SILT | Medium |
| Silty CLAY | High |
| CLAY | Very High |

c. Organic Soil: An organic soil sample is classified by observation of the sample structure.

| Material | Description |
|----------|--|
| Topsoil | Surficial soils that support plant life and which contain organic matter. |
| Peat | Deposits of plant remains in which the original plant fibers may be visible. |

4. Moisture Content

- Damp - Moisture is not apparent, dusty.
- Moist - No visible water.
- Wet - Visible free water.

5. Other Pertinent Characteristics

Soil Structure: Produced by deposition of sediments.

- Stratified - Random soil deposits of varying components or color.
- Varved - Alternating soil deposits of varying thickness (i.e. clays or silts).
- Stratum Layer - Soil deposit >12 inches thick.
- Soil deposit 3 inches to 12 inches thick.
- Seam - Soil deposit 1/8 inch to 3 inches thick.
- Parting/lens - Soil deposit <1/8 inch thick.

GZA GEOENVIRONMENTAL OF NEW YORK
3699 WEST HENRIETTA RD., ROCHESTER, NEW YORK

PROJECT
Perry Builders ESA
Bainbridge, New York

BORING No. GZ-1
SHEET 1 OF 1
FILE No. T9038
CHKD. BY

ENGINEERS AND SCIENTISTS

CONTRACTOR Buffalo Drilling
DRILLER Mike Saeti
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION See Boring Location Plan
GROUND SURFACE ELEVATION _____ DATUM _____
START DATE 10/19/92 END DATE 10/19/92

TYPE OF DRILL RIG Dietrich D-50

CASING SIZE AND TYPE 4 1/4" Hollow Stem Augers

OVERBURDEN SAMPLING METHOD 2" O.D. x 24" Long Split Spoon

ROCK DRILLING METHOD

WATER LEVEL DATA

| DATE | TIME | WATER | CASING | REMARKS |
|----------|-------|-------|--------|--------------|
| 10/19/92 | 17:00 | 8.25' | well | See Note (1) |
| | | | | |
| | | | | |

| DEPTH | SAMPLE | | | | | SAMPLE DESCRIPTION | EQUIPMENT INSTALLATION LOG | NOTES |
|-------|------------|------|-------------|-----------------|--------------|---|--|-------|
| | BLOWS / 6" | NO. | DEPTH (FT.) | N-VALUE /RQD(%) | RECOVERY (%) | | | |
| 1 | 4 | S-1 | 0-1 | | 25 | Loose, Dark Gray, broken asphaltic road base, moist. (FILL) | PVC Stickup (+3.0') | |
| | 4 | | | | | | | |
| 2 | 5 | S-1A | 1-2 | | 25 | Loose, Brown, fine to coarse SAND and Gravel, wood fragments, moist. (FILL) | Bentonite Pellet Seal (1.0'-3.0') | |
| | 4 | | | | | | | |
| 3 | | | | | | Dense, Brown, fine to coarse SAND and Gravel, trace Silty Clay, wet. (FILL) | 2" I.D. Sched. 40, PVC Riser Pipe | |
| 4 | 14 | S-2 | 4-6 | | 45 | | | |
| 5 | 17 | | | | | | | |
| 6 | 14 | | | | | | | |
| 7 | 13 | | | | | | | |
| 8 | | | | | | Very stiff, Brown, Silty CLAY, trace fine Sand, wet. | 2" I.D. Sched. 40, No. 10 Slot, PVC Well Screen (4.5'-14.5') | |
| 9 | 7 | S-3 | 9-11 | | 75 | | | |
| 10 | 9 | | | | | | | |
| 11 | 9 | | | | | | | |
| 12 | | | | | | Very stiff, Brown, Silty CLAY, trace fine Sand, wet. | No. 2 Filter Sand (3.0'-16.0') | |
| 13 | | | | | | | | |
| 14 | 4 | S-4 | 14-16 | | 50 | | | |
| 15 | 9 | | | | | | | |
| 16 | 8 | | | | | | | |
| | | | | | | Bottom of Boring at 16.0' | | |

LEGEND

S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Depth to water measured from top of PVC well casing 1 hour after well installation.

GENERAL 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
NOTES: 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. GZ-1

32A GEOENVIRONMENTAL OF NEW YORK
3699 WEST HENRIETTA RD., ROCHESTER, NEW YORK

PROJECT
Perry Builders ESA
Bainbridge, New York

BORING No. GZ-2
SHEET 1 OF 1
FILE No. 19038
CHKD. BY

ENGINEERS AND SCIENTISTS

CONTRACTOR Buffalo Drilling
DRILLER Mike Saelt
32A GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION See Boring Location Plan
GROUND SURFACE ELEVATION DATUM
START DATE 10/19/92 END DATE 10/19/92

TYPE OF DRILL RIG Dietrich D-50

CASING SIZE AND TYPE 4 1/2" Hollow Stem Augers

OVERBURDEN SAMPLING METHOD 2" O.D. x 24" Long Split Spoon

ROCK DRILLING METHOD

WATER LEVEL DATA

| DATE | TIME | WATER | CASING | REMARKS |
|----------|-------|-------|--------|--------------|
| 10/19/92 | 17:30 | 9.66' | well | See Note (1) |
| | | | | |
| | | | | |

| DEPTH (FT.) | SAMPLE | | | | | SAMPLE DESCRIPTION | EQUIPMENT INSTALLATION LOG | NOTES |
|-------------|------------|------|-------------|-------------------|--------------|--|----------------------------|-------|
| | BLOWS / 6" | NO. | DEPTH (FT.) | N-VALUE / RQD (%) | RECOVERY (%) | | | |
| 1 | 25 | S-1 | 0-2 | | 25 | Very Dense, Brown, fine to coarse SAND and Gravel, trace Clayey Silt, moist. (FILL) | | |
| 2 | 32 | | | | | | | |
| 3 | 21 | | | | | | | |
| 4 | 27 | | | | | | | |
| 5 | 4 | S-2 | 4-6 | | 20 | Medium Dense, Brown, fine to coarse SAND and Gravel, trace Clayey Silt, wet, pieces of black asphalt. (FILL) | | |
| 6 | 5 | | | | | | | |
| 7 | 5 | | | | | | | |
| 8 | 4 | | | | | | | |
| 9 | 9 | S-3 | 9-10 | | 50 | ... Gray, wood fragments. (FILL) | | |
| 10 | 8 | | | | | | | |
| 11 | 10 | S-3A | 10-11 | | 50 | Very stiff, Brown, Silty CLAY, trace fine Sand, wet. | | |
| 12 | 11 | | | | | | | |
| 13 | | | | | | Stiff, Brown, Silty CLAY, trace fine Sand, wet. | | |
| 14 | 7 | S-4 | 14-16 | | 60 | | | |
| 15 | 7 | | | | | | | |
| 16 | 7 | | | | | | | |
| 16 | | | | | | Bottom of Boring at 16.0' | | |

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Depth to water measured from top of PVC well casing 2 hours after well installation.

GENERAL 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
NOTES: 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. GZ-2

APPENDIX D

ANALYTICAL LABORATORY REPORT



ANALYTICAL DATA

SUMMARY

Report Date: 10/23/92

Account: GZA GeoEnvironmental, Inc.
Address: 364 Nagel Dr.
Buffalo, NY 14225
716-685-2300

Project Manager: V. Kokosa
Project Name: Perry Builders ESA (19038) (10/20)
Project No.: 19038

Lab Sample No.'s:

| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| 22946414-001 | 22946414-002 | 22946414-003 | 22946414-004 | 22946414-005 |
| 22946414-006 | 22946414-007 | 22946414-008 | 22946414-009 | 22946414-010 |
| 22946414-011 | 22946414-012 | 22946414-013 | 22946414-014 | |

Reviewed by

Stephen DiMattei
Quality Assurance Officer

Lab Certifications

EPA ID: No. MA059
Connecticut: No. PII 0515
Florida: QA Plan No. 900437G
Maine: Reciprocity
Massachusetts: No. 313
New Hampshire: No. 24190-A,B
New York: ELAP No. 11116
Rhode Island: Reciprocity

CHAIN-OF-CUSTODY RECORD

COMPANY NAME: **GZA GeoEnvironmental of NY**
 ADDRESS: **3699 West Henrietta Road**
Rochester NY 14623
 PROJECT NAME: **Perry Builders ESA NO: 19038**
 PROJECT MANAGER: **Vern Kokosa** PHONE: **716-359-0160**
 SAMPLER(S) NAME: **David Belaskas**

ANALYSES REQUESTED

| | |
|------------------|--|
| Sample Digestion | |
| Total Chromium | |
| Total Copper | |
| Total Arsenic | |

| LAB ID (LAB USE ONLY) | CLIENT SAMPLE ID | TYPE* | COLLECTION DATE / TIME | IMPORTANT - INDICATE THE NUMBER OF BOTTLES PER SAMPLE IN THE SPACES BELOW | | | | | | | | COMMENTS |
|--------------------------|------------------|-------|------------------------|---|--------------|---------------|--|--|--|--|--|---------------------|
| | | | | Total Chromium | Total Copper | Total Arsenic | | | | | | |
| | MW-21 | GW | 10/14/92 18:02 | X | X | X | | | | | | 1 Plastic/Preserved |
| | MW-2 | GW | 10/14/92 18:16 | X | X | X | | | | | | 1 Plastic/Preserved |
| | GZ-1 | GW | 10/14/92 18:48 | X | X | X | | | | | | 1 Plastic/Preserved |
| | GZ-2 | GW | 10/14/92 18:40 | X | X | X | | | | | | 1 Plastic/Preserved |
| | SW-1 | SW | 10/14/92 11:36 | X | X | X | | | | | | 1 Glass |
| | SW-2 | SW | 10/14/92 11:45 | X | X | X | | | | | | 1 Glass |
| | S-1 | S | 10/14/92 09:59 | X | X | X | | | | | | 1 Glass |
| | S-2 | S | 10/14/92 10:12 | X | X | X | | | | | | 1 Glass |
| | S-3 | S | 10/14/92 10:20 | X | X | X | | | | | | 1 Glass |
| | S-4 | S | 10/14/92 10:42 | X | X | X | | | | | | 1 Glass |
| TOTALS: | | | | | | | | | | | | |

*TYPE: W = water; GW = groundwater; DW = drinking water; SW = surface water; S = silt; SED = sediment; SL = sludge; DS = drum sample; O = oil; WI = wipe; X = other (please describe)

SPECIAL INSTRUCTIONS / NOTES:

| MATRIX ANALYTICAL USE ONLY | REUNQUISHED BY | RECEIVED BY | DATE | TIME | COMMENTS |
|--|----------------|-------------|----------|--------|--------------|
| Sample: 1) were shipped / hand-delivered / ambient / chilled 2) were received preserved / unpreserved 3) were received intact / broken / leaking 4) were received within / past holding times 5) agreed with COC form / discrepancies were present 6) were sealed / not sealed with COC tape; tape was broken / intact 7) were in cooler sealed / not sealed with COC tape; tape was broken / intact | Vern Kokosa | D. Belaskas | 10-16-92 | 6 PM | |
| | D. Belaskas | J. Amabile | 10-19-92 | 9 A.M. | |
| | | | | | 22946414-001 |



Matrix Analytical, Inc.
 106 South Street
 Hopkinton, MA 01748
 1 800 3-MATRIX

F I N A L R E P O R T

Client Information

Account: GZA GeoEnvironmental, Inc.
 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-001
 Client Id: MW-21
 Matrix: Water

Date Sampled: 10/19/92 18:02
 Date Received: 10/20/92 : 0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|---------------------------|----------|------|-----------------|------------|---------|---------------|
| <u>SAMPLE PREPARATION</u> | | | | | | |
| Metal Digestion | 10/20/92 | | | 3015 | | |
| <u>TRACE METALS</u> | | | | | | |
| Arsenic | 0.094 | mg/l | 0.005 | 206.3 | th | 10/21/92 |
| Chromium | 0.105 | mg/l | 0.005 | 218.2 | bg | 10/21/92 |
| Copper | 0.28 | mg/l | 0.04 | 200.7 | th | 10/22/92 |



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F I N A L R E P O R T

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 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-002
 Client Id: MW-2
 Matrix: Water

Date Sampled: 10/19/92 18:16
 Date Received: 10/20/92 : 0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|----------------------|--------|------|-----------------|------------|---------|---------------|
|----------------------|--------|------|-----------------|------------|---------|---------------|

SAMPLE PREPARATION

Metal Digestion

10/20/92

3015

TRACE METALS

| | | | | | | |
|----------|-------|------|-------|-------|----|----------|
| Arsenic | 0.509 | mg/l | 0.005 | 206.3 | th | 10/21/92 |
| Chromium | 0.800 | mg/l | 0.005 | 218.2 | bg | 10/21/92 |
| Copper | 1.08 | mg/l | 0.04 | 200.7 | th | 10/22/92 |



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F I N A L R E P O R T

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 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-003
 Client Id: GZ-1
 Matrix: Water

Date Sampled: 10/19/92 18:48
 Date Received: 10/20/92 : 0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|----------------------|--------|------|-----------------|------------|---------|---------------|
|----------------------|--------|------|-----------------|------------|---------|---------------|

SAMPLE PREPARATION

| | | | | | | |
|-----------------|----------|--|--|------|--|--|
| Metal Digestion | 10/20/92 | | | 3015 | | |
|-----------------|----------|--|--|------|--|--|

TRACE METALS

| | | | | | | |
|----------|-------|------|-------|-------|----|----------|
| Arsenic | 0.018 | mg/l | 0.005 | 206.3 | th | 10/21/92 |
| Chromium | ND | mg/l | 0.005 | 218.2 | bg | 10/21/92 |
| Copper | ND | mg/l | 0.04 | 200.7 | th | 10/22/92 |



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F I N A L R E P O R T

Client Information

Account: GZA GeoEnvironmental, Inc.
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 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-004
 Client Id: GZ-2
 Matrix: Water

Date Sampled: 10/19/92 18:40
 Date Received: 10/20/92 : 0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|---------------------------|----------|------|-----------------|------------|---------|---------------|
| SAMPLE PREPARATION | | | | | | |
| Metal Digestion | 10/20/92 | | | 3015 | | |
| TRACE METALS | | | | | | |
| Arsenic | 0.026 | mg/l | 0.005 | 206.3 | th | 10/21/92 |
| Chromium | 0.007 | mg/l | 0.005 | 218.2 | bg | 10/21/92 |
| Copper | ND | mg/l | 0.04 | 200.7 | th | 10/22/92 |



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F I N A L R E P O R T

Client Information

Account: GZA GeoEnvironmental, Inc.
 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name:

Sample Information

Lab ID: 22946414-005
 Client Id: QC-Report
 Matrix: Water
 Comment: Water

Date Sampled: 10/19/92 :
 Date Received: 10/20/92 : 0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|----------------------|--------|------|-----------------|------------|---------|---------------|
|----------------------|--------|------|-----------------|------------|---------|---------------|

DUPLICATE STUDIES

| | | | | | | |
|--------------------|----|---------|--|--|--|--|
| Arsenic Variance: | 8 | Percent | | | | |
| Chromium Variance: | 13 | Percent | | | | |
| Copper Variance: | 0 | Percent | | | | |

MATRIX SPIKE STUDIES - METALS

| | | | | | | |
|--------------------|-----|---------|--|--|--|--|
| Arsenic Recovery: | 106 | Percent | | | | |
| Chromium Recovery: | 114 | Percent | | | | |
| Copper Recovery: | 102 | Percent | | | | |

METHOD SUMMARIES

Metal analysis is performed on digested extracts using Atomic Absorption or ICP Spectroscopy. AA samples are atomized using FASTAC auto deposition and are automatically deposited into graphite cells or directly into flame. ICP samples are automatically sampled, nebulized, and transported into the plasma torch. Final results are produced by auto data/reduction and graphics printer.

METHOD REFERENCES

1. Test Methods For Evaluating Solid Waste: Physical Chemical Methods. EPA SW 846. November 1986.
2. Methods For Chemical Analysis of Water and Wastes. EPA 600/4-79-200. Revised March 1983.
3. Standard Methods For Examination of Water and Wastewater. APHA-AWWA-WACF., 16th Edition. 1985.



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F I N A L R E P O R T

Client Information

Account: GZA GeoEnvironmental, Inc.
 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-006
 Client Id: SW-1
 Matrix: Soil

Date Sampled: 10/19/92 11:36
 Date Received: 10/20/92 :0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|----------------------|--------|------|-----------------|------------|---------|---------------|
|----------------------|--------|------|-----------------|------------|---------|---------------|

SAMPLE PREPARATION

Metal Digestion

10/21/92

3051

TRACE METALS

Arsenic

12.2

mg/kg

0.5

7061

th

10/22/92

Chromium

15.0

mg/kg

0.5

7191

bg

10/21/92

Copper

8.0

mg/kg

4.0

6010

th

10/23/92



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F I N A L R E P O R T

Client Information

Account: GZA GeoEnvironmental, Inc.
 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-007
 Client Id: SW-2
 Matrix: Soil

Date Sampled: 10/19/92 11:45
 Date Received: 10/20/92 : 0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|---------------------------|----------|-------|-----------------|------------|---------|---------------|
| SAMPLE PREPARATION | | | | | | |
| Metal Digestion | 10/21/92 | | | 3051 | | |
| TRACE METALS | | | | | | |
| Arsenic | 24.7 | mg/kg | 0.5 | 7061 | th | 10/22/92 |
| Chromium | 26.0 | mg/kg | 0.5 | 7191 | bg | 10/21/92 |
| Copper | 26 | mg/kg | 4.0 | 6010 | th | 10/23/92 |



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F I N A L R E P O R T

Client Information

Account: GZA GeoEnvironmental, Inc.
 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-008
 Client Id: S-1
 Matrix: Soil

Date Sampled: 10/19/92 09:59
 Date Received: 10/20/92 :0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|---------------------------|----------|-------|-----------------|------------|---------|---------------|
| <u>SAMPLE PREPARATION</u> | | | | | | |
| Metal Digestion | 10/21/92 | | | 3051 | | |
| <u>TRACE METALS</u> | | | | | | |
| Arsenic | 23.2 | mg/kg | 0.5 | 7061 | th | 10/22/92 |
| Chromium | 23.0 | mg/kg | 0.5 | 7191 | bg | 10/21/92 |
| Copper | 37 | mg/kg | 4.0 | 6010 | th | 10/23/92 |



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F I N A L R E P O R T

Client Information

Account: GZA GeoEnvironmental, Inc.
 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-009
 Client Id: S-2
 Matrix: Soil

Date Sampled: 10/19/92 10:12
 Date Received: 10/20/92 : 0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|---------------------------|----------|-------|-----------------|------------|---------|---------------|
| <u>SAMPLE PREPARATION</u> | | | | | | |
| Metal Digestion | 10/21/92 | | | 3051 | | |
| <u>TRACE METALS</u> | | | | | | |
| Arsenic | 6.9 | mg/kg | 0.5 | 7061 | th | 10/22/92 |
| Chromium | 16.5 | mg/kg | 0.5 | 7191 | bg | 10/21/92 |
| Copper | 10 | mg/kg | 4.0 | 6010 | th | 10/23/92 |



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F I N A L R E P O R T

Client Information

| | | | |
|----------|----------------------------|------------------|-----------------------------------|
| Account: | GZA GeoEnvironmental, Inc. | Project Name: | Perry Builders ESA (19038)(10/20) |
| Address: | 364 Nagel Dr. | Project Number: | 19038 |
| | Buffalo, NY 14225 | Project Manager: | V.Kokosa |
| | | Sampler Name: | GZA |

Sample Information

| | | | |
|------------|--------------|----------------|----------------|
| Lab ID: | 22946414-010 | Date Sampled: | 10/19/92 10:20 |
| Client Id: | S-3 | Date Received: | 10/20/92 :0 |
| Matrix: | Soil | Date Reported: | 10/23/92 |

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|---------------------------|----------|-------|-----------------|------------|---------|---------------|
| <u>SAMPLE PREPARATION</u> | | | | | | |
| Metal Digestion | 10/21/92 | | | 3051 | | |
| <u>TRACE METALS</u> | | | | | | |
| Arsenic | 51.9 | mg/kg | 0.5 | 7061 | th | 10/22/92 |
| Chromium | 52.0 | mg/kg | 0.5 | 7191 | bg | 10/21/92 |
| Copper | 58 | mg/kg | 4.0 | 6010 | th | 10/23/92 |



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F I N A L R E P O R T

Client Information

| | | | |
|----------|----------------------------|------------------|-----------------------------------|
| Account: | GZA GeoEnvironmental, Inc. | Project Name: | Perry Builders ESA (19038)(10/20) |
| Address: | 364 Nagel Dr. | Project Number: | 19038 |
| | Buffalo, NY 14225 | Project Manager: | V.Kokosa |
| | | Sampler Name: | GZA |

Sample Information

| | | | |
|------------|--------------|----------------|----------------|
| Lab ID: | 22946414-011 | Date Sampled: | 10/19/92 10:43 |
| Client Id: | S-4 | Date Received: | 10/20/92 :0 |
| Matrix: | Soil | Date Reported: | 10/23/92 |

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|----------------------------------|----------|-------|-----------------|------------|---------|---------------|
| <u>SAMPLE PREPARATION</u> | | | | | | |
| Metal Digestion | 10/21/92 | | | 3051 | | |
| <u>TRACE METALS</u> | | | | | | |
| Arsenic | 71.5 | mg/kg | 0.5 | 7061 | th | 10/22/92 |
| Chromium | 62.0 | mg/kg | 0.5 | 7191 | bg | 10/21/92 |
| Copper | 65 | mg/kg | 4.0 | 6010 | th | 10/23/92 |



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F I N A L R E P O R T

Client Information

Account: GZA GeoEnvironmental, Inc.
 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name: GZA

Sample Information

Lab ID: 22946414-012
 Client Id: S-5
 Matrix: Soil

Date Sampled: 10/19/92 10:53
 Date Received: 10/20/92 :0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|----------------------|--------|------|-----------------|------------|---------|---------------|
|----------------------|--------|------|-----------------|------------|---------|---------------|

SAMPLE PREPARATION

Metal Digestion 10/21/92 3051

TRACE METALS

| | | | | | | |
|----------|------|-------|-----|------|----|----------|
| Arsenic | 13.3 | mg/kg | 0.5 | 7061 | th | 10/22/92 |
| Chromium | 15.0 | mg/kg | 0.5 | 7191 | bg | 10/21/92 |
| Copper | 47 | mg/kg | 4.0 | 6010 | th | 10/23/92 |



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F I N A L R E P O R T

Client Information

| | | | |
|----------|----------------------------|------------------|-----------------------------------|
| Account: | GZA GeoEnvironmental, Inc. | Project Name: | Perry Builders ESA (19038)(10/20) |
| Address: | 364 Nagel Dr. | Project Number: | 19038 |
| | Buffalo, NY 14225 | Project Manager: | V.Kokosa |
| | | Sampler Name: | GZA |

Sample Information

| | | | |
|------------|--------------|----------------|----------------|
| Lab ID: | 22946414-013 | Date Sampled: | 10/19/92 11:04 |
| Client Id: | S-6 | Date Received: | 10/20/92 : 0 |
| Matrix: | Soil | Date Reported: | 10/23/92 |

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|---------------------------|----------|-------|-----------------|------------|---------|---------------|
| <u>SAMPLE PREPARATION</u> | | | | | | |
| Metal Digestion | 10/21/92 | | | 3051 | | |
| <u>TRACE METALS</u> | | | | | | |
| Arsenic | 33.5 | mg/kg | 0.5 | 7061 | th | 10/22/92 |
| Chromium | 28.5 | mg/kg | 0.5 | 7191 | bg | 10/21/92 |
| Copper | 42 | mg/kg | 4.0 | 6010 | th | 10/23/92 |



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F I N A L R E P O R T

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 Address: 364 Nagel Dr.
 Buffalo, NY 14225

Project Name: Perry Builders ESA (19038)(10/20)
 Project Number: 19038
 Project Manager: V.Kokosa
 Sampler Name:

Sample Information

Lab ID: 22946414-014
 Client Id: QC-Report
 Matrix: Soil
 Comment: Soil

Date Sampled: 10/19/92 :
 Date Received: 10/20/92 : 0
 Date Reported: 10/23/92

| Analytical Parameter | Result | Unit | Detection Limit | Method No. | Analyst | Date Analyzed |
|----------------------|--------|------|-----------------|------------|---------|---------------|
|----------------------|--------|------|-----------------|------------|---------|---------------|

DUPLICATE STUDIES

| | | |
|--------------------|---|---------|
| Arsenic Variance: | 6 | Percent |
| Chromium Variance: | 1 | Percent |
| Copper Variance: | 0 | Percent |

MATRIX SPIKE STUDIES - METALS

| | | |
|--------------------|-----|---------|
| Arsenic Recovery: | 93 | Percent |
| Chromium Recovery: | 101 | Percent |
| Copper Recovery: | 86 | Percent |

METHOD SUMMARIES

Metal analysis is performed on digested extracts using Atomic Absorption or ICP Spectroscopy. AA samples are atomized using FASTAC auto deposition and are automatically deposited into graphite cells or directly into flame. ICP samples are automatically sampled, nebulized, and transported into the plasma torch. Final results are produced by auto data/reduction and graphics printer.

METHOD REFERENCES

1. Test Methods For Evaluating Solid Waste: Physical Chemical Methods. EPA SW 846. November 1986.
2. Methods For Chemical Analysis of Water and Wastes. EPA 600/4-79-200. Revised March 1983.
3. Standard Methods For Examination of Water and Wastewater. APHA-AWWA-WACF., 16th Edition. 1985.