

Remediation Report of Home Heating Fuel Release

Ted Koppel, CR


December 1996

1.0 RESTORER'S STATEMENT

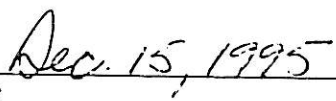
The site of the home heating fuel release is a private residence located at 666 Main Street in South Shenango Township, Mercer County, Pennsylvania. The owners were forced to immediately evacuate the dwelling after the incident.

The purpose of this report is to document the remediation of the spilled oil and the restoration of the property back to its preloss condition. Proper steps were taken to clean-up the oil and the saturated oil material, properly dispose of same and to conduct sub-surface testing to discover the extent of the oil spread. Prevention of further permeation to the well area was critical as was ventilation to prevent migration of oil fumes. All remediation conformed to DER (Department of Environmental Resources) guidelines. EGC (Environmental and Geological Consultants, Inc.) was employed as a sub-contractor to perform the necessary testing of environmental resources. Due to the cooperative efforts of EGC and DER, the findings of the report were verified by the test results performed by EGC and reviewed by DER.

This author's interest in the project was that of General Contractor for the insured.



Ted Koppel



Date

2.0 INTRODUCTION

The homeowner's insurance carrier, Hometown Insurance Company, dispatched FIRST GENERAL SERVICES OF WESTERN PA to the site at 3:15 P.M. on October 7, 1995. The incident occurred at 10:30 A.M. on October 7, 1995. John Jones, Senior Claims Adjuster for Ace Insurance Company (insurance carrier for Black's Home Heating Fuel Co.) of 222 State Street, Our Town, PA 22222, requested that FIRST GENERAL SERVICES OF WESTERN PA perform emergency services for the purpose of preventing further oil spread into the sub-strata and to protect the homeowner's property at 111 Main Street, Anytown, PA 11111, from further damage caused by the oil spill.

This author is Owner of FIRST GENERAL SERVICES OF WESTERN PA, a general contracting firm specializing in insurance restoration with main offices at 415 Dock Street, Sharon, PA 16146.

3.0 BACKGROUND

The John Smith family was displaced from their home on October 7, 1995, as a result of 200 gallons of No. 2 home heating fuel being spilled in the basement area of their residence with possible contamination of their drinking well water and oil vapors permeating their home. The homeowner contacted their insurance carrier as well as the responsible agent of the spill notifying their insurance carrier. The Smith family's insurance, Hometown Insurance Company, requested immediate emergency attention by FIRST GENERAL SERVICES OF WESTERN PA.

The subject site is a private residence located along Main Street in South Shenango Township, Mercer County, Pennsylvania. The site is located approximately 1.5 miles north of Jimtown, Pennsylvania. The occupants/owners are Mr. and Mrs. John Smith. On October 7, 1995, a delivery of home heating fuel was made to the site by Black's Home Fuel Company (Jimtown, Pennsylvania). The fuel was off loaded into a former external fill pipe which was previously disconnected from the inside tank. The pipe discharged directly into the basement of the residence and the fuel spread across the floor. The residents were not home at the time of the spill.

4.0 INVESTIGATION

The Department of Environmental Resources (DER) was contacted immediately upon assignment of the project to set protocol. EGC was contracted to perform the soil tests. Results of the tests are listed in Section 9.0, Figures 2, 3, and 4.

5.0 INSPECTION

This author and 5 cleaning technicians responded to the emergency at the John Smith residence at 4:45 P.M. on October 7, 1995. We met the homeowner, their agent from Hometown Insurance Company and Black's Home Heating Fuel Company's adjuster from Ace Insurance. Black's Home Heating Fuel Company's owner and the driver of the fuel truck which created the spill. The day was clear with no precipitation and the temperature was approximately 65 degrees Fahrenheit. The home is a one story ranch with a finished basement/garage area. The well maintained residence of average quality was built on a sloping landscape. The home's exterior is painted wood siding and stone.

Because there was still enough daylight and the home's electrical power was unaffected, there was no difficulty scoping the damaged areas. Immediate cleanup efforts were implemented. Floor coverings, furnishings, partitions, etc. were impacted by the fuel. Saturated carpeting, tile and building materials were removed and staged outside the home. An expansion board material had been installed around the perimeter of the concrete floor (next to concrete block walls) during floor construction. Petroleum fuel had saturated into the expansion board, providing a conduit to the floor sub-base. FIRST GENERAL SERVICES OF WESTERN PA began removing the concrete floor directly below the former tank fill pipe. Petroleum contamination was observed below the concrete floor.

The private drinking water well is located within the finished basement. Water Sample analysis was immediately scheduled. An on-lot septic system is present on the site. No floor drains were located in the basement to promote off site migration.

Environmental and Geological Consultants, Inc. (EGC) was contacted by the author to assist in the remediation project testing. The purpose of the services provided by EGC was to develop a remedial procedure and to develop a sampling/remediation plan to safely return the residents to their home.

6.0 SCOPE OF REPAIRS

Work was commenced to remove portions of the concrete floor immediately surrounding the spill site. Additional exploratory holes were cut into the concrete in the basement area and garage to facilitate subsurface soil sampling. Several sampling events were completed to define the extent of petroleum contamination.

FIRST GENERAL SERVICES OF WESTERN PA installed a heat shrink wrap (Global Wrap) inside the basement to prevent additional fuel vapors from permeating the structure. A large exhaust fan, in conjunction with the shrink wrap, was also placed outside of a basement window with the Global Wrap tunnel creating a negative pressure in the basement area.

Additional concrete was removed to facilitate excavation and removal of petroleum impacted soils. Contaminated building material, concrete and soil were transported for landfill disposal. Confirmatory soil sampling and analyses were completed. A commercially available granular activated carbon (GAC) filtration unit was installed on the private drinking water well as a precaution. Routine water samples shall be collected to document water quality.

Using a jackhammer at strategic locations, accessing the sub-base of the floor was part of the general remediation plan to sample the sub-base soils and submit samples for laboratory analysis. Continued excavation was based upon contaminate concentrations. Photodocumentation of events is attached as Appendix I.

Arrangements were made by FIRST GENERAL SERVICES OF WESTERN PA to transport all petroleum contaminated material and construction debris to Lake View Landfill (Erie, PA) for disposal. Refer to Appendix II for disposal documentation.

As the concrete floor sub-base was exposed, soil samples were again collected. Shallow borings were installed using hand augers and spoons. Maximum depth of borings inside the basement was 4.5 feet below grade. Soil samples were collected in .05 feet intervals. Each interval was split into two (2) soil samples for headspace screening and laboratory analysis, if necessary.

Split soil samples were allowed to reach ambient temperature. Headspace screening of all soil samples to detect organic vapors was conducted utilizing a portable photoionization detector (PID). PID readings were collected by puncturing the foil seal of each sample and recording the respective value. Results of headspace screening are attached as Table I. Headspace readings ranged from less than the instrument detection level (<0.1 parts per million (ppm)) to 122 ppm (same HA2; 1.0'-1.6').

Baseline soil samples were collected on October 12-13, 1995. Baseline samples were collected in small sample ports cut into the concrete floor by FIRST GENERAL SERVICES. The majority of the concrete floor was intact at this time.

Soil samples were submitted to GeoAnalytical Laboratories, Twinsburg, Ohio, for laboratory analysis of benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8020 and total petroleum hydrocarbons (TPH) by modified EPA Method 8015 to include diesel range organics (DRO). Results indicated residual petroleum contamination in the subsurface. Refer to Figure 2 for soil boring locations and results of laboratory analysis for this event. Additional excavation was conducted.

EGC personnel were called in when the majority of the concrete had been removed from the recreation area floor along with a significant volume of contaminated soil in the northern half of the basement. Samples were collected from horizontal borings installed under and along the footer at the spill area. Results of the soil samples from the date indicated concentrations lower than PADER Cleanup Standards for Contaminated Soils under the footer. However, readings indicated additional soil contamination along the footer. Soil

removal was continued. Refer to Figure 3 for soil boring locations and results of laboratory analysis from this event.

The final sampling event was conducted on October 31, 1995. Confirmatory samples were collected under the stairwell, under the fireplace and along the garage wall at the entrance. Results displayed only a trace level of TPH below the rear (south) side of the fireplace. Additional excavation and soil removal were conducted in this area. Refer to Figure 4 for soil boring locations and results of laboratory analysis from this event. Copies of laboratory certificates of analysis for soil samples are attached as Appendix III.

The drinking water supply well is located in a small room in the basement. The drilled well extends to a depth greater than 60 feet. Exact construction details are unknown (depth, date of installation, etc.). Depth to water was greater than 50 feet on October 13, 1995. Copies of laboratory data are attached as Appendix IV.

A commercially available flow-through granular activated carbon (GAC) filter was installed in November 1995. Baseline samples displayed no petroleum contamination. Follow-up samples were collected by EGC. Results of influent and effluent sample remain below laboratory detection.

After confirming, via soil sampling and testing, that all contaminated sub-surface soil had been removed FIRST GENERAL SERVICES OF WESTERN PA continued the restoration process by back filling and compacting where the soil had been removed. After completion of the back fill, the reinforced concrete floor was replaced to allow the structural cleaning process to continue. Because ample oil fumes had penetrated the structure, before the wrapping and venting process was completed, it was necessary to clean the entire house at this time. After the basement area was cleaned and sealed, cleaning of the first floor area and contents continued while the partitions and finishes were being installed in the basement area. The entire project duration was eight weeks.

7.0 ESTIMATE

FIRST GENERAL SERVICES OF WESTERN PA.
415 DOCK STREET
SHARON, PA. 16146
(412) 981-1441 OR (800) 553-8426
FAX (412) 981-3132
FEDERAL E.I.N. 25-1411356
11/09/95

CLIENT: JOHN SMITH
ADDRESS: 111 MAIN STREET
ANYTOWN,, PA 11111

RES. PH: (555) 555-1212

PROPERTY ADDR: 111
MAIN STREET, PA 11111

CONTACT: JOHN SMITH

ESTIMATOR: K TED KOPPEL

BUS. PH: (412) 981-1441
FAX: (412) 981-3132

REFERENCE: JOHN JONES
SENIOR CLAIM REPRESENTATIVE
COMPANY: ACE INSURANCE COMPANY
ADDRESS: 222 STATE STREET
OUR TOWN,, PA 22222

BUS. PH: (555) 555-6666 EXT: 2555
FAX: (555) 555-6667

ESTIMATE: TK-111

FILE NUMBER: TK-111

FIRST GENERAL SERVICES OF WESTERN PA.

JOHN SMITH

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ROOM: EMERGENCY SERVICES

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
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MOBILIZATION FEE	1 EA @			
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EMERGENCY SERVICE CLEANING LABOR	39.5 HR @			
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**** NOTE: TO ABSORB AND EXTRACT OIL.

GROSS LOT MATERIALS USED TO REMOVE OIL (LISTED BELOW)	1 LS @			
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TRASH BAGS 78EA, DEGREASER 55GL, ABSORBITAL 300LB,
THERMO 55 30GL, 9D9 ODOR COUNTERACTANT 12GL.

DUMPSTER LOAD - SMALL - HAZARDOUS MATERIAL	2 EA @			
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HAZARDOUS MATERIAL DUMPSTER LINER	2 EA @			
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**** NOTE: THE NAMED WASTE GENERATER IS TO BE EGC THE DUMPSTER CHARGES ARE FOR DEMMURAGE ONLY. ALL HAZARDOUS WASTE SITE CHARGES ARE TO BE DIRECTED TO EGC

GENERAL DEMOLITION LABOR LOAD DUMPSTER	24 HR @			
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**** NOTE: TO REMOVE CONTENTS, CARPETING, AND AFFECTED BUILDING MATERIALS FOR DISPOSAL OR STORAGE.

GLOBAL WRAP CEILING & STAIR WELL (SHRINK WRAP)	1,094.5 SF @			
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CONSTRUCT AIR EVACUATION CHUTE (SKRINK WRAP)	2.25 HR @			
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36" LOW SPEED AIR MOVER - RENTAL - PER WEEK	3 WK @			
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**** NOTE: TO CREATE A NEGATIVE AIR PRESSURE IN THE BASEMENT AREA TO PREVENT MIGRATION OF THE OIL FUMES TO THE FIRST FLOOR LIVING AREA.

ROOM TOTAL: EMERGENCY SERVICES

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FIRST GENERAL SERVICES OF WESTERN PA.

JOHN SMITH

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ROOM: TESTING

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CONCRETE SAW RENTAL - PER DAY	2 DA @			
ELECTRIC JACK HAMMER RENTAL - PER DAY	2 DA @			
EXCAVATION LABOR	16 HR @			
EXCAVATION SUPERVISION	16 HR @			

**** NOTE: ALL TESTING BY EGC IS TO BE PAID FOR DIRECT BY ACE INSURANCE COMPANY. ALL TEST RESULTS ARE TO BE SUBMITTED TO FIRST GENERAL SERVICES OF WESTERN PA AND DER.

ROOM TOTAL: TESTING

ROOM: BASEMENT FURNACE RM

SUBROOM 1: OFFSET

MISSING WALL: 1 - 6'8" X 7'3"

427 SF WALLS

134 SF FLOOR

187 SF LONG WALL

134 SF CEILING

17 SY FLOORING

76 SF SHORT WALL

LXWXH: 19'0" X 5'2" X 7'3"

LXWXH: 6'8" X 5'2" X 7'3"

OPENS INTO 0 GOES TO FLOOR/CEILING

561 SF WALLS & CEILING

59 LF FLOOR PERIMETER

59 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CONCRETE FLOOR	134 SF @			
ELECTRIC JACK HAMMER RENTAL - PER DAY	2 DA @			
BOBCAT RENTAL - PER DAY	2 DA @			
EXCAVATE BY HAND - HARD DIRT	19.66 CY @			
BACK FILL BORROWED BANK SAND COMPACTED - BY HAND	19.66 CY @			
CONCRETE SLAB ON GRADE - 4" - REINFORCED	134 SF @			
FURNACE - CLEAN, CHECK, REPLACE FILTERS AND SERVICE	1 EA @			

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FIRST GENERAL SERVICES OF WESTERN PA.

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DESCRIPTION	CONTINUED - BASEMENT FURNACE RM UNITS	REMOVE	REPLACE	TOTAL
FURNACE - FORCED AIR - DETACH & RESET	1 EA @			
CLEAN & DEODORIZE FURNACE DUCTING- COMPLETE SYSTEM	1 EA @			
WATER HEATER - DETACH & RESET	1 EA @			
R&R STUD WALL - 2" X 4" X 8' - 16" OC	19 LF @			
R&R 1/2" DRYWALL - HUNG, TAPED, FLOATED, READY FOR PAINT	187 SF @			
SEAL/PRIME THE LONG WALL - ONE COATS	187 SF @			
PAINT WALLS - TWO COATS	187 SF @			
SEAL MASONRY (1.5 TIMES TO COMPLETELY SEAL)	339 SF @			
R&R INTERIOR DOOR UNIT - STANDARD GRADE	1 EA @			
PAINT DOOR (PER SIDE) 2 COATS	2 EA @			
PAINT DOOR TRIM & JAMB/ 2 COATS	1 EA @			
ROOM TOTAL: BASEMENT FURNACE RM				

ROOM: BASEMENT FAMILY ROOM

SUBROOM 1: OFFSET

MISSING WALL: 1 - 11'6" X 7'0"

743 SF WALLS
574 SF FLOOR
242 SF LONG WALL

LXWXH: 23'0" X 19'9" X 7'0"
LXWXH: 11'6" X 10'4" X 7'0"
OPENS INTO 0 GOES TO FLOOR/CEILING
1,317 SF WALLS & CEILING
106 LF FLOOR PERIMETER
106 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CONCRETE FLOOR	574 SF @			
ELECTRIC JACK HAMMER RENTAL - PER DAY	4 DA @			

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FIRST GENERAL SERVICES OF WESTERN PA.

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DESCRIPTION	CONTINUED - BASEMENT FAMILY ROOM UNITS	REMOVE	REPLACE	TOTAL
BOBCAT RENTAL - PER DAY	4 DA @			
EXCAVATE BY HAND - HARD DIRT	85.04 CY @			
BACK FILL BORROWED BANK SAND COMPACTED - BY HAND	85.04 CY @			
CONCRETE SLAB ON GRADE - 4" - REINFORCED	574 SF @			
DRYWALL REPAIR - MINIMUM CHARGE - CEILING	1 EA @			
DETACH & RESET LIGHT FIXTURE	3 EA @			
DETACH & RESET HEAT/AC REGISTER	3 EA @			
SEAL/PRIME THE CEILING - TWO COATS	574 SF @			
PAINT CEILING -TWO COATS	574 SF @			
2" COVE MOLD - PINE	106 LF @			
STAIN & FINISH CROWN MOLDING	106 LF @			
R&R CASING - STAIN GRADE	51 LF @			
STAIN AND VARNISH CASING	51 LF @			
R&R PANELING - STANDARD GRADE	743 SF @			
R&R FURRING STRIP - 1" X 2"	743 SF @			
OUTLET OR SWITCH - DETACH & RESET	5 EA @			
R&R BASEBOARD - 3 1/4" STAIN GRADE	106 LF @			
STAIN & FINISH BASEBOARD	106 LF @			
CLEAN MASONRY WALL	666 SF @			
SEAL MASONRY (1.5 TIMES TO COMPLETELY SEAL)	666 SF @			
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FIRST GENERAL SERVICES OF WESTERN PA.

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CONTINUED - BASEMENT FAMILY ROOM

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
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GLUE DOWN CARPET - STANDARD GRADE	73 SY @			
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ROOM TOTAL: BASEMENT FAMILY ROOM

ROOM: BASEMENT BATH

LXWXH: 7'6" X 6'0" X 7'0"

189 SF WALLS

45 SF CEILING

234 SF WALLS & CEILING

45 SF FLOOR

6 SY FLOORING

27 LF FLOOR PERIMETER

53 SF LONG WALL

42 SF SHORT WALL

27 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
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CONCRETE FLOOR	45 SF @			
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ELECTRIC JACK HAMMER RENTAL - PER DAY	0.5 DA @			
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BOBCAT RENTAL - PER DAY	0.5 DA @			
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EXCAVATE BY HAND - HARD DIRT	6.67 CY @			
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BACK FILL BORROWED BANK SAND COMPACTED - BY HAND	6.67 CY @			
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CONCRETE SLAB ON GRADE - 4" - REINFORCED	45 SF @			
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CLEAN MASONRY WALL	22 SF @			
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SEAL MASONRY (1.5 TIMES TO COMPLETELY SEAL)	22 SF @			
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R&R STUD WALL - 2" X 4" X 8' - 16" OC	19 LF @			
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OUTLET OR SWITCH - DETACH & RESET	3 EA @			
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R&R 1/2" DRYWALL - HUNG, TAPED, FLOATED, READY FOR PAINT	234 SF @			
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SEAL/PRIME THE WALLS & CEILING - ONE COATS	234 SF @			
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PAINT CEILING -TWO COATS	45 SF @			
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FIRST GENERAL SERVICES OF WESTERN PA.

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CONTINUED - BASEMENT BATH				
DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
DETACH & RESET LIGHT FIXTURE	2 EA @			
CLEAN LIGHT FIXTURE	1 EA @			
PAINT WALLS - TWO COATS	62.37 SF @			
R&R CERAMIC TILE WALLS	90.37 SF @			
R&R INTERIOR DOOR UNIT - STANDARD GRADE	1 EA @			
INTERIOR DOOR LOCK SET	1 EA @			
R&R CASING	34 LF @			
PAINT DOOR (PER SIDE) 2 COATS	2 EA @			
PAINT DOOR TRIM & JAMB/ 2 COATS	1 EA @			
R&R CERAMIC TILE FLOOR	45 SF @			
TOILET - DETACH & RESET	1 EA @			
SINK - DOUBLE - DETACH & RESET	1 EA @			
VANITY - DETACH & RESET	3 LF @			
TUB/SHOWER FAUCET - DETACH & RESET	1 EA @			

ROOM TOTAL: BASEMENT BATH

ROOM: WELL ROOM

LXWXH: 7'0" X 6'1" X 7'0"

184 SF WALLS	43 SF CEILING	227 SF WALLS & CEILING		
43 SF FLOOR	5 SY FLOORING	27 LF FLOOR PERIMETER		
49 SF LONG WALL	43 SF SHORT WALL	27 LF CEIL. PERIMETER		
DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN CEILING JOIST AND DECK SYSTEM (2"X10" @ 16" O/C)	96.75 SF @			
CLEAN LIGHT FIXTURE	1 EA @			
CLEAN MASONRY WALL	184 SF @			

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FIRST GENERAL SERVICES OF WESTERN PA.

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CONTINUED - WELL ROOM				
DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
SEAL MASONRY (1.5 TIMES TO COMPLETELY SEAL)	184 SF @			
CLEAN MASONRY FLOOR	43 SF @			
CLEAN MISCELLANEOUS CONTENTS	2 HR @			
REMOVE THEN RESET WATER SOFTENER	1 EA @			
REMOVE THEN RESET WATER PRESSURE VESSEL	1 EA @			
R&R INTERIOR DOOR UNIT	1 EA @			
INTERIOR DOOR LOCK SET	1 EA @			
R&R CASING	34 LF @			
PAINT DOOR (PER SIDE) 2 COATS	2 EA @			
PAINT DOOR TRIM & JAMB/ 2 COATS	1 EA @			
CARBON WATER FILTER / WITH 1 YEAR FILTER SUPPLY	1 EA @			

ROOM TOTAL: WELL ROOM

ROOM: BASEMENT ENTRY

MISSING WALL: 1 - 9'10" X 7'0"

LXWXH: 22'6" X 9'10" X 7'0"

OPENS INTO E GOES TO FLOOR/CEILING

384 SF WALLS 222 SF CEILING
222 SF FLOOR 28 SY FLOORING
158 SF LONG WALL 69 SF SHORT WALL

606 SF WALLS & CEILING
55 LF FLOOR PERIMETER
55 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CONCRETE FLOOR	222 SF @			
ELECTRIC JACK HAMMER RENTAL - PER DAY	4 DA @			
BOBCAT RENTAL - PER DAY	4 DA @			
EXCAVATE BY HAND - HARD DIRT	32.89 CY @			

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FIRST GENERAL SERVICES OF WESTERN PA.

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DESCRIPTION	CONTINUED - BASEMENT ENTRY		REMOVE	REPLACE	TOTAL
	UNITS				
BACK FILL BORROWED BANK SAND COMPACTED - BY HAND	32.89	CY @			
CONCRETE SLAB ON GRADE - 4" - REINFORCED	222	SF @			
DETACH & RESET LIGHT FIXTURE	2	EA @			
DETACH & RESET HEAT/AC REGISTER	2	EA @			
SEAL/PRIME THE CEILING - TWO COATS	222	SF @			
PAINT CEILING -TWO COATS	222	SF @			
2" COVE MOLD - PINE	45.17	LF @			
STAIN & FINISH CROWN MOLDING	45.17	LF @			
R&R CASING - STAIN GRADE	68	LF @			
STAIN AND VARNISH CASING	68	LF @			
R&R PANELING - STANDARD GRADE	160	SF @			
R&R FURRING STRIP - 1" X 2"	160	SF @			
OUTLET OR SWITCH - DETACH & RESET	4	EA @			
R&R BASEBOARD - 3 1/4" STAIN GRADE	45.17	LF @			
STAIN & FINISH BASEBOARD	45.17	LF @			
CLEAN MASONRY WALL	157.5	SF @			
SEAL MASONRY (1.5 TIMES TO COMPLETELY SEAL)	157.5	SF @			
R&R RESILIENT (V/A TYPE) TILE FLOORING - HIGH GRADE	222	SF @			
EXTERIOR DOOR - DETACH & RESET	1	EA @			

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FIRST GENERAL SERVICES OF WESTERN PA.

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CONTINUED - BASEMENT ENTRY

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
DETACH & RESET WOOD WINDOW - PICTURE (FIXED), 45 - 55 SF, STANDARD GRADE	1 EA @			
R&R STUD WALL - 2" X 4" X 8' - 16" OC	9.83 LF @	0.97+		
R&R 1/2" DRYWALL - HUNG, TAPED, FLOATED, READY FOR PAINT	68.83 SF @	0.29+		
SEAL/PRIME THE SURFACE AREA - ONE COATS	40 SF @			
PAINT WALLS - TWO COATS	40 SF @			

ROOM TOTAL: BASEMENT ENTRY

ROOM: STAIRWELL

LXWXH: 13'6" X 3'0" X 8'0"

264 SF WALLS	41 SF CEILING	305 SF WALLS & CEILING		
41 SF FLOOR	5 SY FLOORING	33 LF FLOOR PERIMETER		
108 SF LONG WALL	24 SF SHORT WALL	33 LF CEIL. PERIMETER		
DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN THE WALLS & CEILING	305 SF @			
DETACH & RESET LIGHT FIXTURE	1 EA @			
CLEAN LIGHT FIXTURE	1 EA @			
R&R GLUE DOWN CARPET - STANDARD GRADE	11.56 SY @	3.49+		
CLEAN DOOR (PER SIDE)	1 EA @			

ROOM TOTAL: STAIRWELL

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FIRST GENERAL SERVICES OF WESTERN PA.

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ROOM: KITCHEN

LXWXH: 15'6" X 11'6" X 8'0"

432 SF WALLS

179 SF CEILING

611 SF WALLS & CEILING

179 SF FLOOR

23 SY FLOORING

54 LF FLOOR PERIMETER

124 SF LONG WALL

92 SF SHORT WALL

54 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN THE CEILING	179 SF @			
CLEAN THE SURFACE AREA	345.6 SF @			
CLEAN WALLPAPER	65 SF @			
CLEAN FLOOR	179 SF @			
CLEAN MISCELLANEOUS CONTENTS	12 HR @			
CLEAN DOOR (PER SIDE)	1 EA @			
CLEAN WINDOW, 3 - 9 SF	2 EA @			
CLEAN CABINetry - UPPER - INSIDE AND OUT	20 LF @			
CLEAN CABINetry - LOWER - INSIDE AND OUT	20 LF @			
CLEAN COUNTER TOP - FORMICA	17.75 SF @			
REFRIGERATOR - DETACH & RESET	1 EA @			
CLEAN REFRIGERATOR	1 EA @			
RANGE - GAS - DETACH & RESET	1 EA @			
CLEAN RANGE	1 EA @			

ROOM TOTAL: KITCHEN

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FIRST GENERAL SERVICES OF WESTERN PA.

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JOHN SMITH

ROOM: DINING ROOM		LXWXH: 11'4" X 10'10" X 8'0"		
355 SF WALLS	123 SF CEILING	478 SF WALLS & CEILING		
123 SF FLOOR	16 SY FLOORING	45 LF FLOOR PERIMETER		
91 SF LONG WALL	87 SF SHORT WALL	45 LF CEIL. PERIMETER		
DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL

CLEAN THE WALLS & CEILING	478 SF @			
CLEAN AND DEODORIZE CARPET	123 SF @			
CLEAN MISCELLANEOUS CONTENTS	6 HR @			
CLEAN DOOR (PER SIDE)	1 EA @			
CLEAN WINDOW, 21 - 40 SF	2 EA @			

ROOM TOTAL: DINING ROOM

ROOM: LIVING ROOM		LXWXH: 21'0" X 16'0" X 8'0"		
592 SF WALLS	336 SF CEILING	928 SF WALLS & CEILING		
336 SF FLOOR	43 SY FLOORING	74 LF FLOOR PERIMETER		
168 SF LONG WALL	128 SF SHORT WALL	74 LF CEIL. PERIMETER		
DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL

CLEAN THE WALLS & CEILING	928 SF @			
CLEAN AND DEODORIZE CARPET	336 SF @			
CLEAN MISCELLANEOUS CONTENTS	4 HR @			
CLEAN DOOR (PER SIDE)	1 EA @			
CLEAN WINDOW, 21 - 40 SF	1 EA @			
CLEAN & DEODORIZE CHAIR - LIGHT CLEAN	2 EA @			
CLEAN & DEODORIZE SOFA - LIGHT CLEAN	7 LF @			
CLEAN & DEODORIZE LOVE SEAT - PLAIN FABRIC - LIGHT CLEAN	5 LF @			

ROOM TOTAL: LIVING ROOM

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ROOM: FOYER

LXWXH: 12'7" X 5'9" X 8'0"

294 SF WALLS	73 SF CEILING	367 SF WALLS & CEILING		
73 SF FLOOR	9 SY FLOORING	37 LF FLOOR PERIMETER		
101 SF LONG WALL	46 SF SHORT WALL	37 LF CEIL. PERIMETER		
DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN THE WALLS & CEILING	367 SF @			
CLEAN LIGHT FIXTURE	2 EA @			
CLEAN AND DEODORIZE CARPET	73 SF @			
CLEAN MISCELLANEOUS CONTENTS	0.75 HR @			
CLEAN DOOR (PER SIDE)	1 EA @			

ROOM TOTAL: FOYER

ROOM: HALL

LXWXH: 32'0" X 3'0" X 8'0"

560 SF WALLS	96 SF CEILING	656 SF WALLS & CEILING		
96 SF FLOOR	12 SY FLOORING	70 LF FLOOR PERIMETER		
256 SF LONG WALL	24 SF SHORT WALL	70 LF CEIL. PERIMETER		
DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN THE WALLS & CEILING	656 SF @			
CLEAN LIGHT FIXTURE	2 EA @			
CLEAN AND DEODORIZE CARPET	96 SF @			
CLEAN MISCELLANEOUS CONTENTS	0.75 HR @			
CLEAN DOOR (PER SIDE)	6 EA @			

ROOM TOTAL: HALL

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ROOM: FRONT MIDDLE BEDROOM

SUBROOM 1: OFFSET

MISSING WALL: 1 - 3'0" X 8'0"

SUBROOM 2: CLOSET

535 SF WALLS 163 SF CEILING
163 SF FLOOR 21 SY FLOORING
166 SF LONG WALL 127 SF SHORT WALL

LXWXH: 12'8" X 11'4" X 8'0"
LXWXH: 3'0" X 2'3" X 8'0"
OPENS INTO 0 GOES TO FLOOR/CEILING
LXWXH: 4'11" X 2'3" X 8'0"
698 SF WALLS & CEILING
68 LF FLOOR PERIMETER
68 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN THE WALLS & CEILING	698 SF @			
CLEAN LIGHT FIXTURE	2 EA @			
CLEAN AND DEODORIZE CARPET	163 SF @			
CLEAN MISCELLANEOUS CONTENTS	1 HR @			
CLEAN DOOR (PER SIDE)	2 EA @			
CLEAN WINDOW, 21 - 40 SF	1 EA @			

ROOM TOTAL: FRONT MIDDLE BEDROOM

ROOM: FRONT LEFT BEDROOM

SUBROOM 1: CLOSET

602 SF WALLS 210 SF CEILING
210 SF FLOOR 27 SY FLOORING
172 SF LONG WALL 130 SF SHORT WALL

LXWXH: 16'0" X 11'6" X 8'0"
LXWXH: 5'5" X 4'8" X 8'0"
812 SF WALLS & CEILING
76 LF FLOOR PERIMETER
76 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN THE WALLS & CEILING	812 SF @			
CLEAN LIGHT FIXTURE	1 EA @			
CLEAN AND DEODORIZE CARPET	210 SF @			
CLEAN MISCELLANEOUS CONTENTS	1.25 HR @			
CLEAN DOOR (PER SIDE)	2 EA @			
CLEAN WINDOW, 21 - 40 SF	2 EA @			

ROOM TOTAL: FRONT LEFT BEDROOM

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ROOM: MASTER BATHROOM

DESCRIPTION	UNITS	LXWXH:			TOTAL
		REMOVE	REPLACE		
183 SF WALLS	32 SF CEILING	215 SF WALLS & CEILING			
32 SF FLOOR	4 SY FLOORING	23 LF FLOOR PERIMETER			
54 SF LONG WALL	38 SF SHORT WALL	23 LF CEIL. PERIMETER			
CLEAN THE WALLS & CEILING	215 SF @				
CLEAN LIGHT FIXTURE	2 EA @				
CLEAN FLOOR, STRIP & WAX	32 SF @				
CLEAN MISCELLANEOUS CONTENTS	0.75 HR @				
CLEAN DOOR (PER SIDE)	6 EA @				
CLEAN WINDOW, 10 - 20 SF	1 EA @				
CLEAN VANITY - INSIDE AND OUT	4 LF @				
CLEAN SINK	1 EA @				
EAT TUB	1 EA @				
CLEAN TOILET	1 EA @				

ROOM TOTAL: MASTER BATHROOM

ROOM: BATH ROOM

DESCRIPTION	UNITS	LXWXH:			TOTAL
		REMOVE	REPLACE		
224 SF WALLS	45 SF CEILING	269 SF WALLS & CEILING			
45 SF FLOOR	6 SY FLOORING	28 LF FLOOR PERIMETER			
72 SF LONG WALL	40 SF SHORT WALL	28 LF CEIL. PERIMETER			
CLEAN THE WALLS & CEILING	269 SF @				
CLEAN LIGHT FIXTURE	2 EA @				
CLEAN FLOOR, STRIP & WAX	45 SF @				
CLEAN MISCELLANEOUS CONTENTS	0.75 HR @				
CLEAN DOOR (PER SIDE)	6 EA @				
CLEAN WINDOW, 10 - 20 SF	1 EA @				

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IN SMITH

CONTINUED - BATH ROOM

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN VANITY - INSIDE AND OUT	6 LF @			
CLEAN SINK	2 EA @			
CLEAN TUB	1 EA @			
CLEAN TOILET	1 EA @			

ROOM TOTAL: BATH ROOM

ROOM: BACK LEFT BEDROOM

LXWXH: 13'0" X 11'5" X 8'0"
LXWXH: 4'10" X 2'4" X 8'0"

SUBROOM 1: CLOSET

506 SF WALLS 161 SF CEILING 667 SF WALLS & CEILING
161 SF FLOOR 21 SY FLOORING 64 LF FLOOR PERIMETER
143 SF LONG WALL 111 SF SHORT WALL 64 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN THE WALLS & CEILING	667 SF @			
LEAN LIGHT FIXTURE	1 EA @			
CLEAN AND DEODORIZE CARPET	161 SF @			
CLEAN MISCELLANEOUS CONTENTS	1.25 HR @			
CLEAN DOOR (PER SIDE)	2 EA @			
CLEAN WINDOW, 21 - 40 SF	2 EA @			

ROOM TOTAL: BACK LEFT BEDROOM

ROOM: BACK MIDDLE BEDROOM

LXWXH: 11'11" X 11'7" X 8'0"
LXWXH: 6'4" X 2'4" X 8'0"

SUBROOM 1: CLOSET

515 SF WALLS 154 SF CEILING 669 SF WALLS & CEILING
154 SF FLOOR 20 SY FLOORING 65 LF FLOOR PERIMETER
147 SF LONG WALL 112 SF SHORT WALL 65 LF CEIL. PERIMETER

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CLEAN THE WALLS & CEILING	669 SF @			
CLEAN LIGHT FIXTURE	2 EA @			

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CONTINUED - BACK MIDDLE BEDROOM
UNITS REMOVE

REPLACE

TOTAL

DESCRIPTION

CLEAN AND DEODORIZE CARPET	154 SF @
CLEAN MISCELLANEOUS CONTENTS	1 HR @
CLEAN DOOR (PER SIDE)	2 EA @
CLEAN WINDOW, 21 - 40 SF	2 EA @

ROOM TOTAL: BACK MIDDLE BEDROOM

LXWXH: 17'4" X 10'0" X 7'5"

ROOM: BACK PORCH

406 SF WALLS	174 SF CEILING
174 SF FLOOR	22 SY FLOORING
129 SF LONG WALL	75 SF SHORT WALL

580 SF WALLS & CEILING
55 LF FLOOR PERIMETER
55 LF CEIL. PERIMETER

DESCRIPTION

UNITS

REMOVE

REPLACE

TOTAL

CLEAN AND DEODORIZE CARPET	174 SF @
----------------------------	----------

ROOM TOTAL: BACK PORCH

LXWXH: 22'0" X 18'6" X 7'5"

LXWXH: 17'8" X 8'3" X 7'5"

ROOM: BASEMENT GARAGE

SUBROOM 1: OFFSET

MISSING WALL: 1 - 17'8" X 7'5"

724 SF WALLS	553 SF CEILING
553 SF FLOOR	71 SY FLOORING
296 SF LONG WALL	200 SF SHORT WALL

OPENS INTO 0 GOES TO FLOOR/CEILING

1,277 SF WALLS & CEILING
97 LF FLOOR PERIMETER
97 LF CEIL. PERIMETER

DESCRIPTION

UNITS

REMOVE

REPLACE

TOTAL

CONCRETE FLOOR	145 SF @
ELECTRIC JACK HAMMER RENTAL - PER DAY	0.5 DA @
BOBCAT RENTAL - PER DAY	0.5 DA @
EXCAVATE BY HAND - HARD DIRT	5 CY @
BACK FILL BORROWED BANK SAND COMPACTED - BY HAND	5 CY @

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CONTINUED - BASEMENT GARAGE

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
CONCRETE SLAB ON GRADE - 4" - REINFORCED	145 SF @			

ROOM TOTAL: BASEMENT GARAGE

ROOM: MISCELLANEOUS

DESCRIPTION	UNITS	REMOVE	REPLACE	TOTAL
DUMPSTER LOAD - LARGE	6 EA @			
HAZARDOUS MATERIAL DUMPSTER LINER	6 EA @			
MOVING VAN AND EQUIPMENT - PER DAY	2 EA @			
LABOR FOR MOVE-OUT AND MOVE BACK	28 HR @			

**** NOTE: CONTENTS WERE STORED IN HOME OWNERS ON SITE STORAGE BUILDING.

DRY CLEANING - BY INVOICE	1 LS @			
LAUNDRY - BY INVOICE	1 LS @			

ROOM TOTAL: MISCELLANEOUS

LINE ITEM SUBTOTAL:

ADJUSTMENTS FOR MIN CHARGES	MINIMUM	IN ESTIMATE	ADJUSTMENT
HEAT, VENT, & AIR COND REPAI			
WOOD WINDOW REPAIR			

TOTAL ADJUSTMENTS FOR MINIMUMS:

LINE ITEM TOTAL:

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SUMMARY

TOTAL LINE ITEMS

OVERHEAD	@	10% X
PROFIT	@	10% X
MATERIAL TAX	@	6% X
GRAND TOTAL		

GRAND TOTAL AREAS:

8,119 SF WALLS	3,358 SF CEILING	11,477 SF WALLS & CEILING
3,358 SF FLOOR	429 SY FLOORING	1,063 LF FLOOR PERIMETER
2,716 SF LONG WALL	1,676 SF SHORT WALL	1,063 LF CEIL. PERIMETER


K. TED KOPPEL
OWNER

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RECAP BY ROOM

ROOM:EMERGENCY SERVICES
ROOM:TESTING
ROOM:BASEMENT FURNACE RM
ROOM:BASEMENT FAMILY ROOM
ROOM:BASEMENT BATH
ROOM:WELL ROOM
ROOM:BASEMENT ENTRY
ROOM:STAIRWELL
ROOM:KITCHEN
ROOM:DINING ROOM
ROOM:LIVING ROOM
ROOM:FOYER
ROOM:HALL
ROOM:FRONT MIDDLE BEDROOM
ROOM:FRONT LEFT BEDROOM
ROOM:MASTER BATHROOM
ROOM:BATH ROOM
ROOM:BACK LEFT BEDROOM
ROOM:BACK MIDDLE BEDROOM
ROOM:BACK PORCH
ROOM:BASEMENT GARAGE
ROOM:MISCELLANEOUS

MINIMUMS

SUMMARY

TOTAL LINE ITEMS		
OVERHEAD	@	10% X
PROFIT	@	10% X
MATERIAL TAX	@	6% X
GRAND TOTAL		

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RECAP BY CATEGORY

DESCRIPTION: O&P ITEMS	TOTAL DOLLARS	%
APPLIANCES		
CABINETRY		
CONT: DRY CLEANING		
CLEANING		
CONCRETE		
CONT: PACKING, HANDLING, STORAGE		
CONT: CLEAN, UPHOLSTRY & SOFT		
LAUNDRY		
GENERAL DEMOLITION		
DOORS		
DRYWALL		
ELECTRICAL		
EMERGENCY SERVICE		
EXCAVATION		
FLOOR COVERING - CARPET		
FLOOR COVERING - VINYL		
FINISH CARPENTRY / TRIMWORK		
FRAMING & ROUGH CARPENTRY		
HEAT, VENT & AIR CONDITIONING		
LIGHT FIXTURES		
PLUMBING		
PANELING & WOOD WALL FINISHES		
PAINTING		
TILE		
WINDOWS - WOOD		
O&P ITEMS SUBTOTAL		
MINIMUMS		
OVERHEAD	10%	
PROFIT	10%	
MATERIAL TAX	6%	
GRAND TOTAL		

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8. PRICE BASIS

The pricing used in the scope of repairs is based on locally accepted unit of measure prices where available. Special pricing such as equipment rental is at actual cost plus 10% mark-up plus 10% overhead and 10% profit.

9.0 DIAGRAMS AND DOCUMENTS

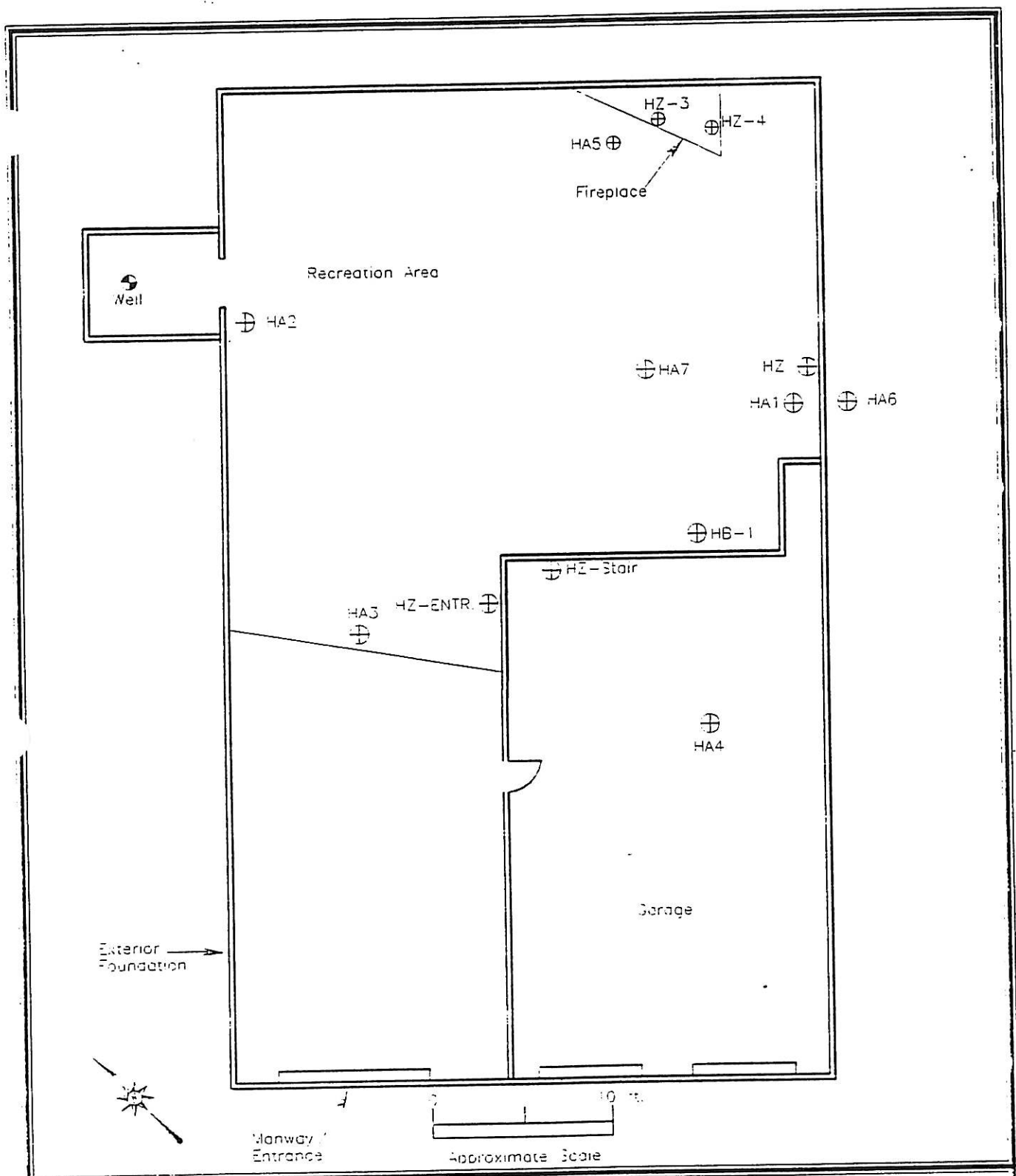


Figure 1

Map View of Residence (Basement)

Hand Auger Soil Boring Locations

PREPARED BY:

TED KOPPEL

FIRST GENERAL SERVICES

415 DOCK STREET

SHARON, PA 16146

FILE NO.: TK-111

Key

- ⊕ Residential Well
- ⊕ Soil Boring

PREPARED FOR:

JOHN JONES

ACE INSURANCE CO.

222 STATE STREET

OUR TOWN, PA 22222

Ponders Well	
Sampling Date: 10/13/94	
benzene	<1.0 ppb
toluene	<1.0 ppb
a-benzene	<1.0 ppb
xvienes	<1.0 ppb
total BTEX	<4.0 ppb
TPH 3015	<1.0 ppm



Well

Recreation Area

Soil Boring 2	
Sampling Date: 10/13/94	
Sampled Interval: 0.0'-1.5'	
benzene	46.7 ppb
toluene	1030 ppb
a-benzene	1140 ppb
xvienes	4880 ppb
total BTEX	7156 ppb
TPH 3015	4279 ppm

Soil Boring 7	
Sampling Date: 10/14/94	
Sampled Interval: 0.0'-0.5'	
benzene	<2.0 ppb
toluene	5.5 ppb
a-benzene	<2.0 ppb
xvienes	15.2 ppb
total BTEX	22.7 ppb
TPH 3015	14.0 ppm

HA5

Fireplace

HA7

HA1

HA6

Soil Boring 1	
Sampling Date: 10/13/94	
Sampled Interval: 1.2'-1.8'	
benzene	477 ppb
toluene	14770 ppb
a-benzene	3750 ppb
xvienes	12400 ppb
total BTEX	20397 ppb
TPH 3015	20300 ppm

HA3

HA4

Soil Boring 4	
Sampling Date: 10/13/94	
Sampled Interval: 0.0'-0.5'	
benzene	22.0 ppb
toluene	42.0 ppb
a-benzene	12.0 ppb
xvienes	46.0 ppb
total BTEX	122.0 ppb
TPH 3015	655 ppm

Garage

Foundation

Manway
Entrance

Approximate Scale

Key

- Residential Well
- Soil Boring

PREPARED FOR:
JOHN JAMES
ACE INSURANCE CO.
222 STATE STREET
OUR TOWN, PA 22222

Figure 2

Results Of Soil Sample Analysis

Hand Auger Soil Boring Locations

PREPARED BY:

TED KOPPEL
FIRST GENERAL SERVICES
415 DOCK STREET
SHARON, PA 16146
FILE NO.: TK-111

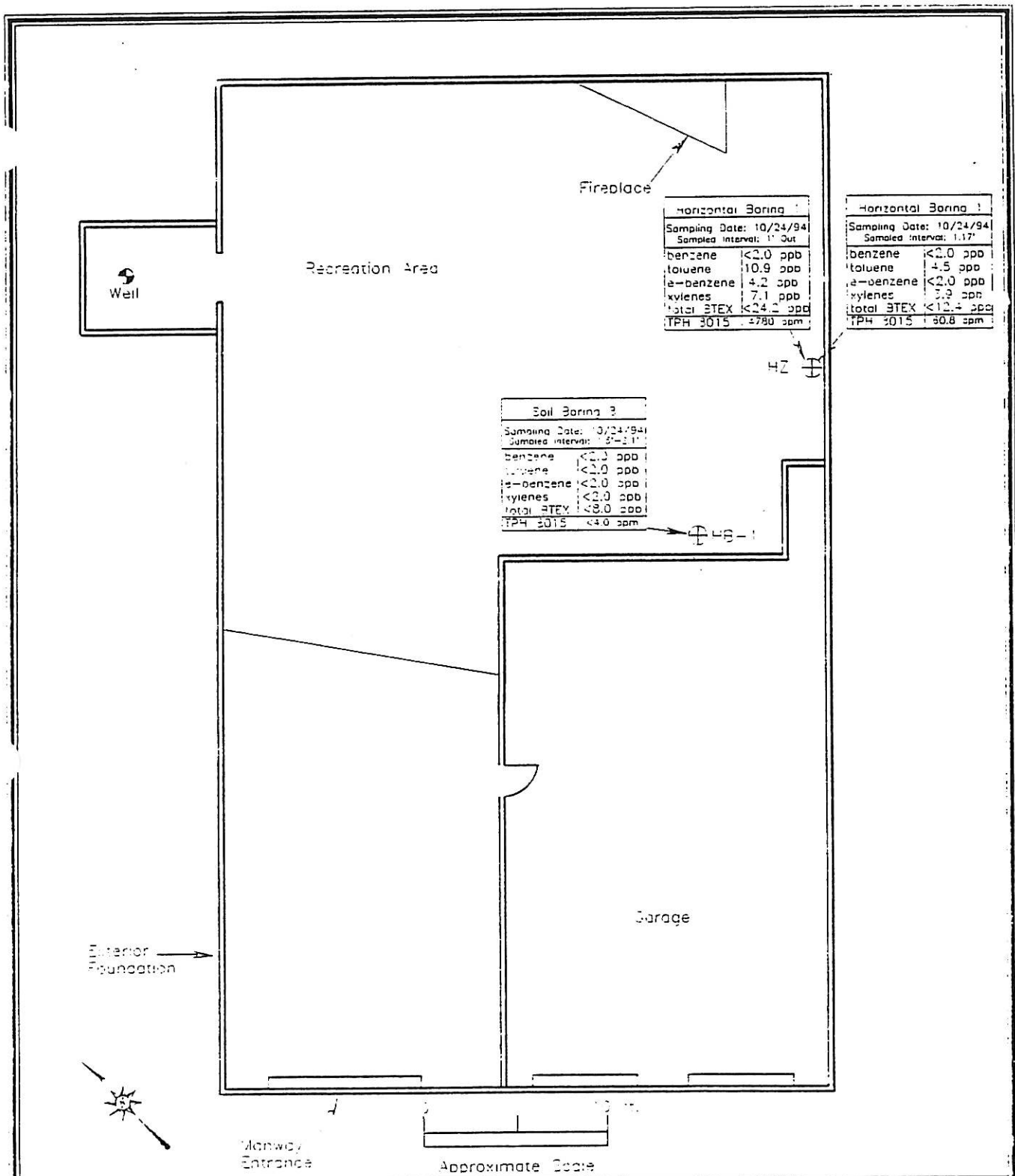


Figure 3

Results Of Soil Sample Analysis

Hand Auger Soil Boring Locations

PREPARED BY:

TED KOPPEL

FIRST GENERAL SERVICES

415 DOCK STREET

SHARON, PA 16146

FILE NO.: TK-111

Key

Residential Well

Soil Boring

PREPARED FOR:

JOHN JONES

ACE INSURANCE CO.

222 STATE STREET

OUR TOWN, PA 22222

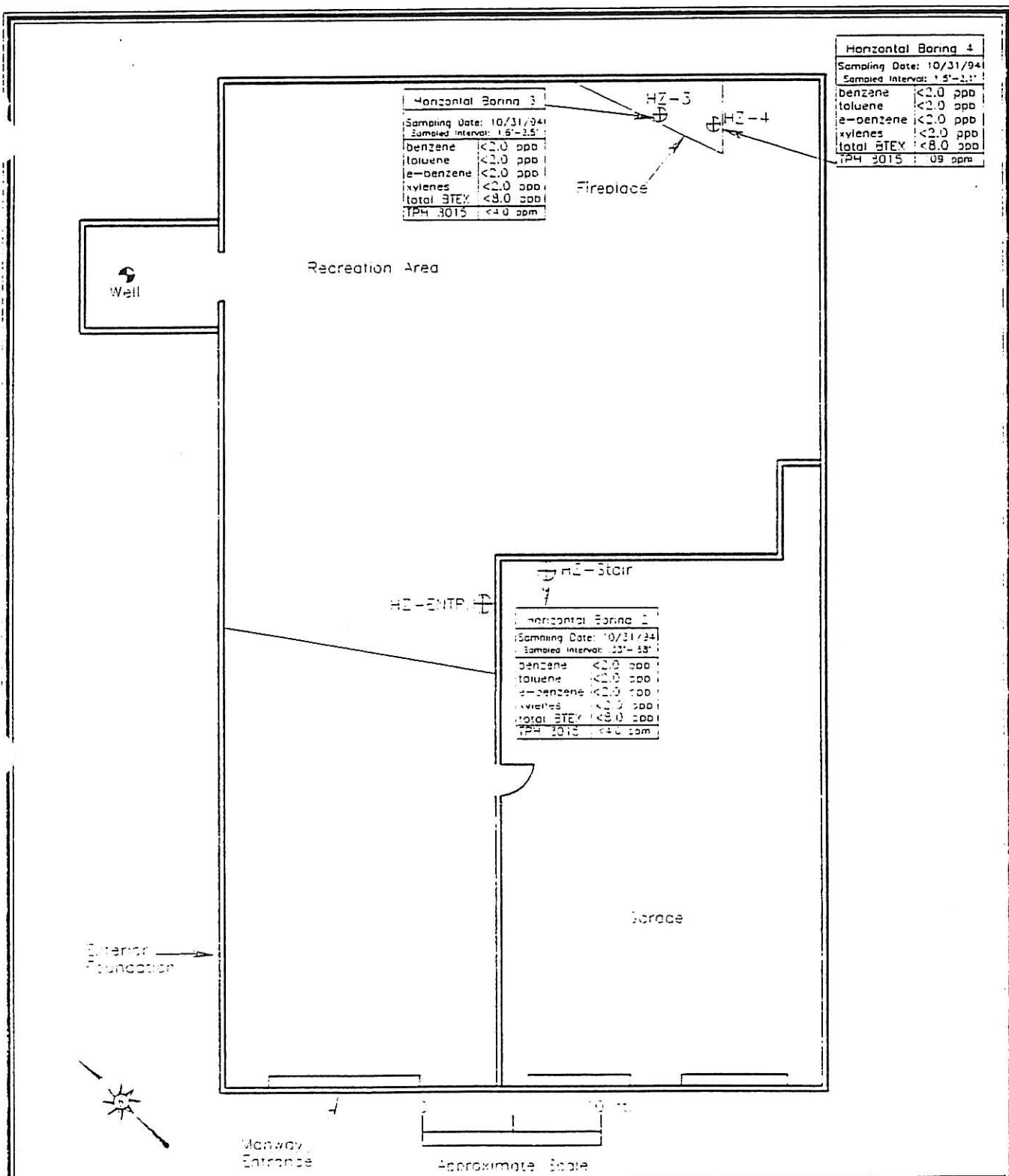


Figure 4

Results Of Soil Sample Analysis

Hand Auger Soil Boring Locations

Key
 Residential Well
 Soil Boring

PREPARED FOR:
 JOHN JONES
 ACE INSURANCE CO.
 222 STATE STREET
 OUR TOWN, PA 22222

PREPARED BY:
 TED KOPPEL
 FIRST GENERAL SERVICES
 415 DOCK STREET
 SHARON, PA 16146
 FILE NO.: TK-111

Table 1. (Page 1 of 2) Results of Headspace Screening of Soil Samples

EGC Project # TRA884.09

Soil Boring	Sample Identification	Sampled Interval	Sample Date	Screening Date	PID Reading ppm
HA1 - Floor level along the south wall where the fuel oil entered the basement					
HA1	HA1	1.25'-1.83'	10/13/94	10/13/94	84*
HA1	HA1	2.0'-3.0'	10/13/94	10/13/94	42
HA1	HA1	3.0'-4.0'	10/13/94	10/13/94	22
HA2 - Floor level next to the southwest entrance to the water well					
HA2	HA2	0.0'-0.5'	10/13/94	10/13/94	58
HA2	HA2	0.5'-1.0'	10/13/94	10/13/94	66
HA2	HA2	1.0'-1.5'	10/13/94	10/13/94	122*
HA2	HA2	1.6'-2.3'	10/13/94	10/13/94	36
HA2	HA2	2.3'-2.8'	10/13/94	10/13/94	75
HA3 - Floor level at the tile/concrete joint					
HA3	HA3	0.0'-0.5'	10/13/94	10/13/94	8
HA3	HA3	0.5'-1.0'	10/13/94	10/13/94	2
HA3	HA3	1.0'-1.25'	10/13/94	10/13/94	4
HA4 - Floor level in the garage					
HA4	HA4	0.0'-0.5'	10/13/94	10/13/94	62*
HA4	HA4	0.5'-1.5'	10/13/94	10/13/94	3
HA4	HA4	1.5'-2.5'	10/13/94	10/13/94	1
HA5 - Floor level on the north side of the fireplace					
HA5	HA5	0.0'-0.5'	10/13/94	10/13/94	2
HA5	HA5	0.5'-1.0'	10/13/94	10/13/94	1
HA5	HA5	1.0'-2.0'	10/13/94	10/13/94	1
HA5	HA5	2.0'-2.5'	10/13/94	10/13/94	1
HA6 - Outside the house adjacent to the out of service fill pipe					
HA6	HA6	4.0'-5.0'	10/14/94	10/14/94	ND
HA6	HA6	5.0'-6.0'	10/14/94	10/14/94	6

EGC Project # TRA884.09

Soil Boring	Sample Identification	Sampled Interval	Sample Date	Screening Date	PID Reading ppm
HA7 - Floor level ten feet north of the spill location					
HA7	HA7	0.0'-0.5'	10/14/94	10/14/94	0.4*
HA7	HA7	0.5'-1.0'	10/14/94	10/14/94	ND
HA7	HA7	1.0'-2.0'	10/14/94	10/14/94	0.2
HA7	HA7	2.0'-3.0'	10/24/94	10/14/94	0.2
HA7	HA7	3.0'-4.0'	10/14/94	10/14/94	0.2
HZ - Horizontal boring under the footer at the spill location					
HZ	HZ-1	1.0' out	10/24/94	10/24/94	6.2*
HZ	HZ-2	1.17' under	10/24/94	10/24/94	ND*
HA8 - 1.5' below floor level at the wall between the garage and the basement					
HA8	HB-1	1.5'-2.1'	10/24/94	10/24/94	1.8*
HZ2 - Under stairwell (horizontally) under large rock					
HZ2	HZ-Stairs	0.0'-0.17'	10/31/94	10/31/94	40
HZ2	HZ-Stairs	0.17'-0.33'	10/31/94	10/31/94	8.6
HZ2	HZ-Stairs	0.33'-0.58'	10/31/94	10/31/94	3*
HA9 - Floor level on the north side of stair case					
HA9	HZ-Entrance	0.0'-0.67'	10/31/94	10/31/94	ND
HZ3 - Horizontal boring under the north side of the fireplace					
HZ3	HZ-Front Frpl	1.6'-2.5'	10/31/94	10/31/94	6.8*
HZ4 - Horizontal boring under rear of fireplace					
HZ4	HZ-Rear Frpl	0.7'-1.5'	10/31/94	10/31/94	100
HZ4	HZ-Rear Frpl	1.5'-2.1'	10/31/94	10/31/94	9.2*

Notes:

1. Bold Italic* denotes sample submitted for laboratory analyses
2. Screening conducted with a HNU Systems Model HW-101 portable photoionization detector (PID).
3. PID is calibrated to a benzene standard.
4. ND indicates no detection by the PID.

Table 2. Summary of Laboratory Analyses of Soil and Drinking Well Samples

EGC Project # TRA884.09

Parameters	Soil Boring HA1	Soil Boring HA2	Soil Boring HA4
BTEX 8020	Interval 1.25'-1.83'	Interval 1.0'-1.6'	Interval 0.0'-0.5'
TPH 8015/DRO	(Sample HA1)	(Sample HA2)	(Sample HA4)
Benzene	0.477 mg/kg	0.0467 mg/kg	<0.002 mg/kg
Toluene	4.770 mg/kg	1.090 mg/kg	<0.002 mg/kg
Ethylbenzene	3.750 mg/kg	1.140 mg/kg	0.0213 mg/kg
Xylenes	12.400 mg/kg	4.880 mg/kg	0.0489 mg/kg
TPH Diesel Range Organics	20600 mg/kg	4720 mg/kg	685 mg/kg
Parameters	Soil Boring HA7	Soil Boring HZ1	Soil Boring HZ1
BTEX 8020	Interval 0.0'-0.5'	Interval 0.0'-1.0'	Interval 1.0'-1.17'
TPH 8015/DRO	(Sample HA7)	(Sample HZ-1)	(Sample HZ-2)
Benzene	<0.002 mg/kg	<0.002 mg/kg	<0.002 mg/kg
Toluene	0.0055 mg/kg	0.0109 mg/kg	0.0045 mg/kg
Ethylbenzene	<0.002 mg/kg	0.0042 mg/kg	<0.002 mg/kg
Xylenes	0.0152 mg/kg	0.0071 mg/kg	0.0039 mg/kg
TPH Diesel Range Organics	<4.0 mg/kg	4780 mg/kg	60.8 mg/kg
Parameters	Soil Boring HA8	Soil Boring HZ2	Soil Boring HZ3
BTEX 8020	Interval 1.5'-2.1'	Interval 0.3'-0.6'	Interval 1.6'-2.5'
TPH 8015/DRO	(Sample HB-1)	(Sample HZ-Stairs)	(Sample HZ- Fr. Frpl)
Benzene	<0.002 mg/kg	<0.002 mg/kg	<0.002 mg/kg
Toluene	<0.002 mg/kg	<0.002 mg/kg	<0.002 mg/kg
Ethylbenzene	<0.002 mg/kg	<0.002 mg/kg	<0.002 mg/kg
Xylenes	<0.002 mg/kg	<0.002 mg/kg	<0.002 mg/kg
TPH Diesel Range Organics	<4.0 mg/kg	<4.0 mg/kg	<4.0 mg/kg
Parameters	Soil Boring HZ4		Water Well
BTEX 8020	Interval 1.5'-2.1'		Grab Sample
TPH 8015/DRO	(Sample HZ-Rear Frpl)		
Benzene	<0.002 mg/kg		<0.001 mg/L
Toluene	<0.002 mg/kg		<0.001 mg/L
Ethylbenzene	<0.002 mg/kg		<0.001 mg/L
Xylenes	<0.002 mg/kg		<0.001 mg/L
TPH Diesel Range Organics	109.0 mg/kg		< 1.0 mg/L

Notes:

1. Laboratory Analyses conducted by GeoAnalytical Laboratories, Twinsburg, Ohio.
2. Soil borings 1-5 and the water well were sampled on 10/13/94; soil borings 6 and 7 were sampled on 10/14/94.
3. Soil borings HZ1, HZ2, and HA8 were sampled on 10/24/94.
4. Soil borings HZ3, HZ4, and HA9 were sampled on 10/31/94.