

P.T.

GEOSCIENCE TECHNICAL SERVICES, INC.

Box 1036, Old Lyme, CT 06371
(860) 434-3144

RECEIVED

JUN 23 2008

**INVESTIGATION OF SOIL QUALITY
410 ERIE BOULEVARD WEST
ROME, NEW YORK**

ENVIRONMENTAL QUALITY
REGION 6

prepared for

**Ralph Brackett
1606 North George Street
Rome, New York**

David Cook
Geoscience Tech Serv.
Box 172
Clinton NY 13323
315-853-7039

May 24, 2002

No metals, VOC or SVOC sampling, only PAHs.

Logs indentify presence of fill, coal fragments & coal ash.

Contamination is at depth.

PID readings low.

Phase I for property?

GEOSCIENCE TECHNICAL SERVICES, INC.

Box 172, Clinton, NY 13323
(315) 853-7039

May 24, 2002

Ralph Brackett
1606 North George Street
Rome NY 13440

Dear Mr. Brackett:

Enclosed herewith is our report on an investigation of soil quality at 410 Erie Boulevard West in Rome, New York.

We appreciate the opportunity to have provided you with these services.
Please call me if you have any questions.

Yours truly,

David O. Cook

David O. Cook, Ph.D.
President

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1.0 INTRODUCTION

This report presents the results of a soil quality investigation performed at 410 Erie Boulevard West in Rome, New York. The property contains the Polka Dot Village, a laundromat.

The investigation involved making six soil borings to a depth of 12 feet and collecting continuous soil samples in the borings. The samples were screened in the field and selected samples were analyzed for polynuclear aromatic hydrocarbons. Results have been compared to recommended clean-up levels established by the Department of Environmental Conservation (NYS DEC).

Subcontractors included Paragon Environmental Construction (Syracuse NY) who provided soil boring services and Upstate Laboratories (also in Syracuse) who conducted the soil analyses. Geoscience Technical Services directed the project, supervised field work, described soil samples, evaluated the results, and prepared this report.

2.0 BACKGROUND

The property is located on the north side of Erie Boulevard West and extends to Woodrow Avenue in the rear. The laundromat is a one story masonry building on a concrete slab. A paved parking lot lies in the alcove on the east side of the building. The rear section of the lot is vegetated with grass and weeds.

Concern about soil quality relates to a former manufactured gas plant which operated on two parcels immediately east and west of the subject property. The east parcel at 106 South Madison Street is now occupied by a Burger King restaurant. The west parcel at 412 Erie Boulevard West is used as a natural gas regulator station. The manufacturing gas plant was active in the 19th and early 20th centuries.

Investigations conducted by O'Brien & Gere Engineers under contract to Niagara Mohawk have identified coal tar residue from the manufacturing gas plant in the subsurface at the two adjacent parcels. The residue contains polynuclear aromatic hydrocarbons (PAH's). O'Brien & Gere made two soil borings on the Polka Dot property and installed monitoring wells. No PAH's were found in two soil samples analyzed from each boring. Traces of several PAH's were detected in a ground water sample from one of the wells.

The water table was encountered at a depth of 5 to 8 feet below the ground surface. Water table elevations indicated that shallow ground water flows towards the

south-southwest.

The O'Brien & Gere work is documented in a report titled "Preliminary Site Assessment, Jay & Madison Street Site" prepared for Niagara Mohawk and dated October 2001.

It was decided to conduct an additional investigation on the Polka Dot property by making shallow borings to check soil quality in the vicinity of the water table. That work is described in the following sections of our report.

3.0 FIELD OPERATIONS

3.1 Soil Boring

Borings were made at six stations shown in Figure 1. Locations included one station in front of the building, four stations in the parking lot, and one station in the rear of the property. The borings were designated GTS-1 to GTS-6.

Soil boring took place on April 17, 2002 using a Geoprobe unit mounted on a pick-up truck. The Geoprobe hydraulically vibrates and shoves the drill string into the ground. Samples were collected in 2 inch diameter, 4 foot long plastic liners called macrocores. Sampling took place in three 4 foot increments at each station, reaching a depth of 12 feet below the ground surface.

The boring was supervised and samples were described by a geologist from Geoscience Technical Services.

3.2 Sample Screening

Samples in the 4 foot core liners were described in terms of recovery, grain size, color, consistency, moisture, and any other noteworthy features. Subsamples were screened for volatile organic compounds (VOC's) using a MiniRAE Plus Classic photoionization detector (organic vapor analyzer or OVA). The OVA was calibrated to read in parts per million of an isobutylene standard.

The screening took place using the headspace method. In this method, about 50 grams of soil are placed in a ziplock bag which is inflated and sealed. The bag is then shaken to promote VOC volatilization. After shaking, the intake of the OVA is placed in the bag and the instrument reading is observed. The observed values are useful in a relative sense but do not indicate concentrations of specific compounds.

Sample descriptions are contained in Appendix A.

One sample was selected from each boring for laboratory analysis. The selection was based on indications of contamination including OVA reading, odor, and color. Included were the following:

GTS-1 4'-8', upper section 4
 GTS-2 8'-12', upper section
 GTS-3 4'-8', lower section 8
 GTS-4 8'-12', lower section
 GTS-5 8'-12'
 GTS-6 0'-4', lower section 4

The above samples were packed into 8 ounce glass jars with teflon lids and kept in a cooler during transport to the laboratory.

4.0 SAMPLE ANALYSIS

The soil samples were analyzed by Upstate Laboratories Inc. in Syracuse who are licensed by the State of New York. Each sample was analyzed for polynuclear aromatic hydrocarbons (PAH's) by US EPA method 8270. As previously mentioned, PAH's are semi-volatile organic compounds associated with coal tar residue.

5.0 RESULTS

5.1 Subsurface Geology

Unconsolidated sediments encountered in the borings are summarized below:

gravelly sand and silt - this gray, slightly cohesive sediment extended from the ground surface to a depth of 4 to 7 feet. It is interpreted as fill.

silt and clay - a thin layer of fine-grained sediment was present beneath the fill in GTS-1, GTS-2, GTS-3, GTS-4, and GTS-5. In the former two borings, it took the form of brown organic silt. In the latter two borings, the layer consisted of gray-brown silty clay with no significant organic component. Both the organic silt and the silty clay were very cohesive.

fine to medium sand - the lowest unit penetrated by the borings was a gray, somewhat cohesive fine to medium sand. The sand was encountered approximately 6 to 10 feet below the ground surface.

Based on the degree of saturation in sediment samples, the water table was located at a depth of 6 to 10 feet.

None of the borings encountered refusal indicative of bedrock or a hard substrate.

These results match the stratigraphy described in the O'Brien & Gere report. They found fill overlying silty sand in the upper 20 to 30 feet of borings. Organic matter was present in one of the borings they made on the Polka Dot property.

5.2 Soil Quality

Analytical results for the six soil samples analyzed are documented in a report from Upstate Laboratories which is contained in Appendix B. The data are summarized in Table 1 and discussed below.

PAH's were detected in three of the six sample analyzed: GTS-1 4'-8'u, GTS-3 4'-8'l, and GTS-6 0'-4'l. No PAH's were detected in the samples from GTS-2, GTS-4, and GTS-5.

Numbers of compounds detected in the former three samples and the range in concentrations are listed below. The concentration units, mg/kg, are equivalent to parts per million.

| | <u># compounds detected</u> | <u>concentration range</u> |
|--------------|-----------------------------|----------------------------|
| GTS-1 4'-8'u | 10 | 4.4 to 11.0 mg/kg |
| GTS-3 4'-8'l | 12 | 54 to 250 mg/kg |
| GTS-6 0'-4'l | 8 | 4.3 to 18 mg/kg |

The sample from GTS-3, located in the parking lot, was thus the most heavily impacted. GTS-1 was also in the parking lot and GTS-6 was located in the north section of the property.

5.3 Comparison with NYS DEC Criteria

NYS DEC established recommended cleanup levels for soil in Technical and Administrative Guidance Memorandum #4046 titled "Determination of Soil Cleanup Objectives and Cleanup Levels" dated November 16, 1992. Recommended cleanup levels for the PAH's detected in boring samples are shown in Table 1. Individual compounds exceeded the levels in the GTS-1, GTS-2, and GTS-3 samples as summarized below

| | <u># compounds with exceedances</u> |
|--------------|-------------------------------------|
| GTS-1 4'-8'u | 6 |
| GTS-3 4'-8'l | 12 |
| GTS-6 0'-4'l | 2 |

The O'Brien & Gere report calls out screening levels for total PAH's and total carcinogenic PAH's. The respective levels are 500 ppm and 10 mg/kg. Carcinogenic PAH's include:

| | |
|----------------------|------------------------|
| benzo(a)anthracene | chrysene |
| benzo(a)pyrene | dibenzo(a,h)anthracene |
| benzo(b)fluoranthene | ideno(1,2,3-cd)pyrene |
| benzo(g,h,i)perylene | |

The sample data are compared with these screening levels below. Concentrations are in mg/kg.

| | <u>GTS-1 4'-8'u</u> | <u>GTS-3 4'-8'l</u> | <u>GTS-6 0'-4'l</u> | <u>screening value</u> |
|--------------------|---------------------|---------------------|---------------------|------------------------|
| PAH's | 79.0 | 1314 | 89.6 | 500 |
| carcinogenic PAH's | 53.4 | 499 | 4.3 | 10 |

The GTS-3 sample thus exceeded the total PAH's screening value, and both the GTS-1 and GTS-3 samples exceeded the total carcinogenic PAH's screening value.

6.0 CONCLUSIONS

This investigation has identified PAH contamination of soil in samples from three of six borings made at 410 Erie Boulevard West. Concentrations of certain individual compounds exceeded NYS DEC recommended clean-up levels in GTS-1 4'-8'u, GTS-3 4'-8'l, and GTS-6 0'-4'l. The screening value for total PAH's was exceeded by the GTS-3 sample, and the GTS-1 and GTS-3 samples exceeded the total carcinogenic PAH's screening value.

These results indicate that the property has been impacted by coal tar residue from the former manufacturing gas plant. Further investigation is needed to determine the full extent of contamination and to identify appropriate remedial measures.

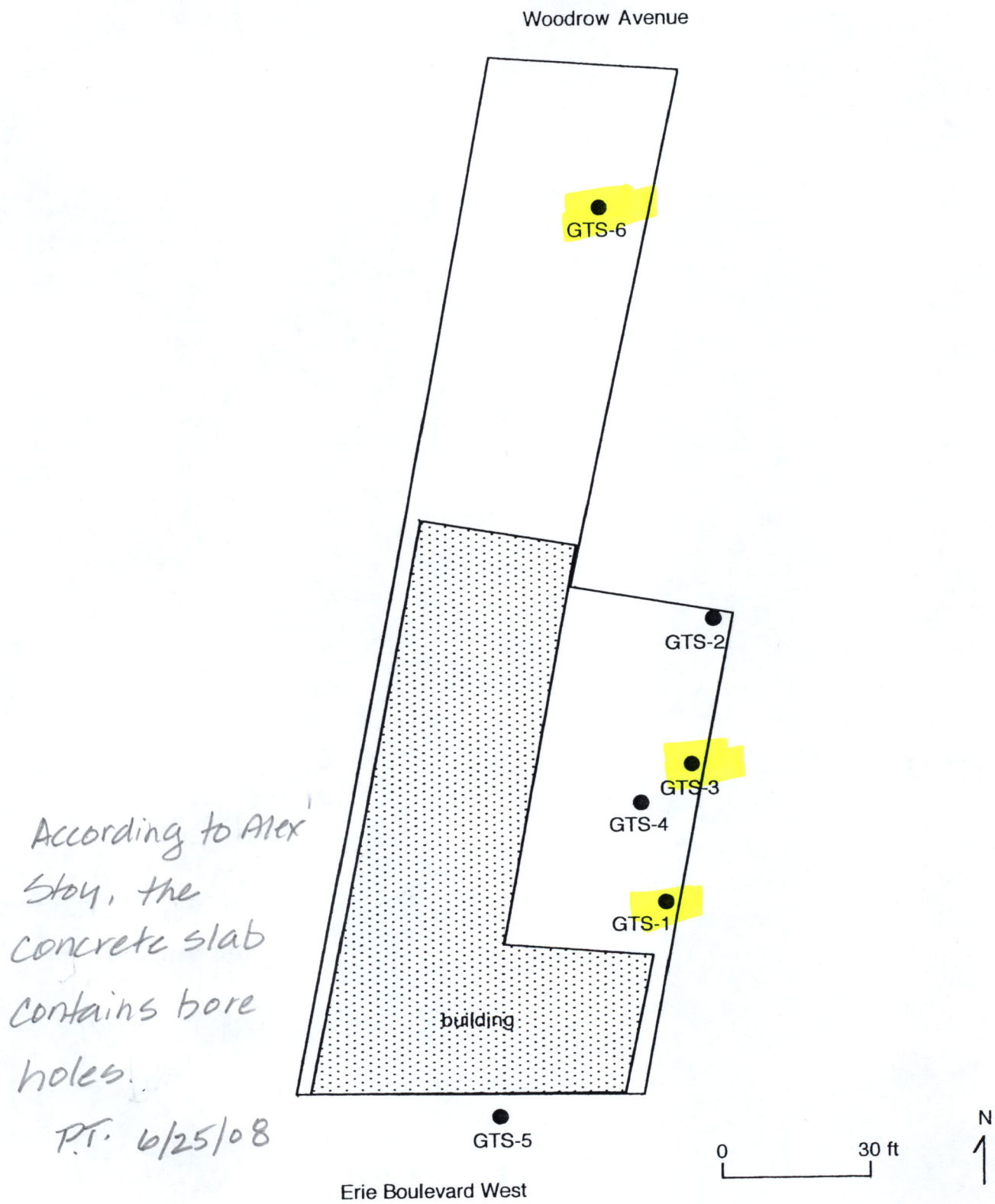


Figure 1. Sketch showing locations of soil borings.

Table 1. Results of soil analyses for those samples with detections. Concentrations are in mg/kg. Exceedances of NYS DEC recommended soil clean-up objectives from TAGM 4046 are highlighted.

Exceeds unrestricted

Exceeds commercial

| compound | GTS-1 | 4'-8'u | GTS-3 | 4'-8'l | GTS-6 | 0'-4'l | TAGM 4046 |
|----------------------|-------|--------|-------|--------|-------|--------|-----------|
| naphthalene | ND | | 64 | | 18 | | 13 |
| acenaphthene | ND | | ND | | 7.9 | | 50 |
| fluorene | ND | | 55 | | 5.6 | | 50 |
| phenanthrene | 7.2 | | 250 | | 26 | | 50 |
| anthracene | ND | | 95 | | 5.4 | | 50 |
| fluoranthene | 9 | | 210 | | 9.4 | | 50 |
| pyrene | 9 | | 180 | | 13 | | 50 |
| chrysene | 7.3 | | 89 | | ND | | 0.4 |
| benzo(a)anthracene | 8 | | 110 | | 4.3 | | 0.22 |
| benzo(b)fluoranthene | 11 | | 100 | | ND | | 1.1 |
| benzo(k)fluoranthene | 4.4 | | ND | | ND | | 1.1 |
| benzo(a)pyrene | 11 | | 92 | | ND | | 0.061 |
| ideno(1,2,3cd)pyrene | 7.7 | | 54 | | ND | | 3.2 |
| benzo(g,h,i)perylene | 8.4 | | 54 | | ND | | 50 |
| total PAH's | 79 | | 1314 | | 89.6 | | |

Appendix A. Descriptions of soil samples.

DESCRIPTIONS OF SOIL SAMPLES

date: 4/17/02

location: 410 Erie Boulevard West, Rome

observer: David Cook

boring: GTS-1

sampling interval: 0 to 4 feet

sample recovered: 23 inches

| | <u>0" - 9"</u> |
|--------------|--|
| texture: | gravelly silty sand |
| color: | pale brown |
| consistency: | slightly compact |
| moisture: | moist |
| OVA reading: | 1.6 ppm |
| comments: | coal and ash fragments in lower 6 inches |

| <u>9" - 23"</u> |
|---------------------|
| gravelly sandy silt |
| very dark gray |
| slightly compact |
| moist |
| 0.4 ppm |

boring: GTS-1

sampling interval: 4 to 8 feet

sample recovered: 25 inches

| | <u>0" - 4"</u> | <u>4" - 25"</u> |
|--------------|--|--|
| texture: | gravelly silty sand | grav. sandy silt grading to organic silt |
| color: | light gray | very dark gray grading to dark brown |
| consistency: | slightly cohesive | cohesive |
| moisture: | moist | moist |
| OVA reading: | 0.7 ppm | 0.2 ppm |
| comments: | some ash in 0 to 4 inch section; sample of 0 - 4 inch section taken for analysis at 0840 | |

boring: GTS-1

sampling interval: 8 to 12 feet

sample recovered: 44 inches

| | <u>0" - 8"</u> | <u>8" - 44"</u> |
|--------------|----------------|-------------------|
| texture: | organic silt | fine sand |
| color: | very dark gray | olive gray |
| consistency: | cohesive | slightly cohesive |
| moisture: | moist | saturated |
| OVA reading: | 0.7 ppm | 0.3 ppm |

boring: GTS-2

sampling interval: 0 to 4 feet

sample recovered: 23 inches

texture: gravelly silty sand

color: dark grayish brown

consistency: loose

moisture: moist

OVA reading: 0.1 ppm

boring: GTS-2
sampling interval: 4 to 8 feet
sample recovered: 27 inches

| | <u>0" - 15"</u> | <u>15" - 27"</u> |
|--------------|---------------------|-------------------|
| texture: | gravelly silty sand | fine sand |
| color: | black | brown |
| consistency: | slightly cohesive | slightly cohesive |
| moisture: | moist | saturated |
| OVA reading: | 0.1 ppm | 0.1 ppm |

comments: sample of 0 to 15" section taken for analysis at 0910

boring: GTS-2
sampling interval: 8 to 12 feet
sample recovered: 48 inches
texture: medium to fine sand
color: brown
consistency: cohesive
moisture: saturated
OVA reading: 0.1 ppm
comments: lower 4 inches black organic silt, OVA = 0.1

boring: GTS-3
sampling interval: 0 to 4 feet
sample recovered: 20 inches

| | <u>0" - 12"</u> | <u>12" - 20"</u> |
|--------------|---------------------|------------------|
| texture: | gravelly silty sand | gravelly sand |
| color: | very dark gray | dark gray |
| consistency: | slightly cohesive | loose |
| moisture: | moist | moist |
| OVA reading: | 0.9 ppm | 0.1 ppm |

comments: ash and coal in 12 to 20 inch section

boring: GTS-3
sampling interval: 4 to 8 feet
sample recovered: 39 inches

| | <u>0" - 35"</u> | <u>35" - 39"</u> |
|--------------|---|---------------------|
| texture: | gravelly silty sand grading to organic silt | fine to medium sand |
| color: | very dark gray | dark gray |
| consistency: | cohesive | slightly cohesive |
| moisture: | moist | saturated |
| OVA reading: | 17 ppm | 22 ppm |

comments: some ash near top; oily odor in bottom; sample of 35 to 39 inch section taken for analysis at 0945

boring: GTS-3
sampling interval: 8 to 12 feet
sample recovered: 31 inches
texture: fine to medium sand
color: olive gray grading to light olive brown
consistency: cohesive
moisture: saturated
OVA reading: 24 ppm

boring: GTS-4
sampling interval: 0 to 4 feet
sample recovered: 20 inches

| | <u>0" - 7"</u> | <u>7" - 20"</u> |
|--------------|--|---------------------|
| texture: | gravelly silty sand | gravelly silty sand |
| color: | pale brown | very dark gray |
| consistency: | loose | slightly cohesive |
| moisture: | moist | moist |
| OVA reading: | 1.0 ppm | 0.1 ppm |
| comments: | some ash and glass fragments in 7 in 20 inch section | |

boring: GTS-4
sampling interval: 4 to 8 feet
sample recovered: 14 inches
texture: gravelly silty sand grading to sandy silt
color: very dark gray
consistency: cohesive
moisture: moist
OVA reading: 0.5 ppm

boring: GTS-4
sampling interval: 8 to 12 feet
sample recovered: 29 inches

| | <u>0" - 4"</u> | <u>4" - 29"</u> |
|--------------|---|------------------------------------|
| texture: | silty clay | fine sand |
| color: | dark gray | dark gray grading to grayish brown |
| consistency: | very cohesive | slightly cohesive |
| moisture: | moist | saturated |
| OVA reading: | 0.1 ppm | 0.1 ppm |
| comments: | sample of 4 to 29 inch section taken for analysis at 1025 | |

boring: GTS-5
sampling interval: 0 to 4 feet
sample recovered: 24 inches
texture: gravelly silty sand
color: pale brown grading to dark gray
consistency: slightly cohesive
moisture: moist
OVA reading: 0.1 ppm
comments: coal and brick fragments near bottom

boring: GTS-5
sampling interval: 4 to 8 feet
sample recovered: 48 inches

| | <u>0" - 14"</u> | <u>14" - 45"</u> | <u>45" - 48"</u> |
|--------------|---------------------|--------------------------|------------------|
| texture: | gravelly silty sand | sandy silt to silty clay | fine sand |
| color: | dark grayish brown | dark gray | gray |
| consistency: | slightly cohesive | very cohesive | cohesive |
| moisture: | moist | moist | moist |
| OVA reading: | 0.1 ppm | 0.1 ppm | 0.1 ppm |

boring: GTS-5
sampling interval: 8 to 12 feet
sample recovered: 39 inches
texture: medium sand
color: light olive brown
consistency: slightly cohesive
moisture: saturated
OVA reading: 0.1 ppm
comments: sample taken for analysis at 1100

boring: GTS-6
sampling interval: 0 to 4 feet
sample recovered: 26 inches

| | <u>0" - 14"</u> | <u>14" - 26"</u> |
|--------------|-----------------|---------------------|
| texture: | gravelly sand | gravelly silty sand |
| color: | yellowish brown | very dark gray |
| consistency: | loose | slightly cohesive |
| moisture: | moist | moist |
| OVA reading: | 0.1 ppm | 4.3 ppm |

comments: some coal and ash in lower section; sample of 14 to 26 inch section taken for analysis at 1120

boring: GTS-6
sampling interval: 4 to 8 inches

sample recovered: 20 inches

0" - 6"
texture: gravelly silty sand
color: gray
consistency: slightly cohesive
moisture: moist
OVA reading: 0.1 ppm

6" - 20"
fine to medium sand
grayish brown
slightly cohesive
saturated
0.1 ppm

boring: GTS-6
sampling interval: 8 to 12 feet
sample recovered: 34 inches
texture: fine sand
color: brown
consistency: cohesive
moisture: saturated
OVA reading: 0.1 ppm

Appendix B. Report from Upstate Laboratories on analysis of soil samples.

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209

Mailing: Box 289 • Syracuse, NY 13206

Albany (518) 459-3134

Binghamton (607) 724-0478

Buffalo (716) 649-2533

Rochester (716) 436-9070

New Jersey (201) 343-5353

May 8, 2002

Mr. David Cook
GeoScience Technical Services
P.O. Box 1036
Old Lyme, CT 06371

Re: Analysis Report #10802028 - Polka Dot Laundramat

Dear Mr. Cook:

Please find enclosed the results for your samples which were received on April 17, 2002.

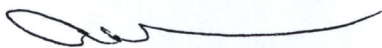
We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.



Anthony J. Scala
Director

AJS/rd

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 5/06/02. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 05/08/02

Upstate Laboratories, Inc.

Analysis Results

Report Number: 10802028

Client I.D.: GEOSCIENCE TECHNICAL SERVICES

APPROVAL: 

QC: 

Lab I.D.: 10170

Sampled by: Client

ID:10802028 Mat:Soil POLKA DOT LAUNDRAMAT GTS-1 4'-8'U 0840H 04/17/02 G

| PARAMETERS | RESULTS | TIME | DATE ANAL. | KEY | KEY | FILE# |
|-----------------------------------|----------------|------|------------|-----|-----|--------|
| Percent Solids | 82% | | 05/07/02 | | | WD9179 |
| Polynuclear Aromatic Hydrocarbons | | | | | | |
| Naphthalene | <4000ug/kg dw | | 05/01/02 | 5 | | SA3384 |
| Acenaphthylene | <4000ug/kg dw | | 05/01/02 | 5 | | SA3384 |
| Acenaphthene | <4000ug/kg dw | | 05/01/02 | 5 | | SA3384 |
| Fluorene | <4000ug/kg dw | | 05/01/02 | 5 | | SA3384 |
| Phenanthrene | 7200ug/kg dw | | 05/01/02 | | | SA3384 |
| Anthracene | <4000ug/kg dw | | 05/01/02 | 5 | | SA3384 |
| Fluoranthene | 9000ug/kg dw | | 05/01/02 | | | SA3384 |
| Pyrene | 9000ug/kg dw | | 05/01/02 | | | SA3384 |
| Chrysene | 7300ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(a)anthracene | 8000ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(b)fluoranthene | 11,000ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(k)fluoranthene | 4400ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(a)pyrene | 11,000ug/kg dw | | 05/01/02 | | | SA3384 |
| Indeno(1,2,3-cd)pyrene | 7700ug/kg dw | | 05/01/02 | | | SA3384 |
| Dibenzo(a,h)anthracene | <4000ug/kg dw | | 05/01/02 | 5 | | SA3384 |
| Benzo(ghi)perylene | 8400ug/kg dw | | 05/01/02 | | | SA3384 |



ID:10802029 Mat:Soil POLKA DOT LAUNDRAMAT GTS-2 8'-12'U 0910H 04/17/02 G

| PARAMETERS | RESULTS | TIME | DATE ANAL. | KEY | KEY | FILE# |
|-----------------------------------|--------------|------|------------|-----|-----|--------|
| Percent Solids | 85% | | 05/07/02 | | | WD9179 |
| Polynuclear Aromatic Hydrocarbons | | | | | | |
| Naphthalene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Acenaphthylene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Acenaphthene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Fluorene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Phenanthrene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Anthracene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Fluoranthene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Pyrene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Chrysene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(a)anthracene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(b)fluoranthene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(k)fluoranthene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(a)pyrene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Indeno(1,2,3-cd)pyrene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Dibenzo(a,h)anthracene | <390ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(ghi)perylene | <390ug/kg dw | | 05/02/02 | | | SA3384 |

lw = Dry weight

DATE: 05/08/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 10802028
Client I.D.: GEOSCIENCE TECHNICAL SERVICES

APPROVAL: 
QC: 
Lab I.D.: 10170
Sampled by: Client

ID:10802030 Mat:Soil POLKA DOT LAUNDRAMAT GTS-3 4'-8'L 0945H 04/17/02 G

| PARAMETERS | RESULTS | TIME | DATE ANAL. | KEY | KEY | FILE# |
|-----------------------------------|-----------------|------|------------|-----|-----|--------|
| Percent Solids | 84% | | 05/07/02 | | | WD9179 |
| Polynuclear Aromatic Hydrocarbons | | | | | | |
| Naphthalene | 64,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Acenaphthylene | <48,000ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Acenaphthene | <48,000ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Fluorene | 55,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Phenanthrene | 250,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Anthracene | 95,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Fluoranthene | 210,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Pyrene | 180,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Chrysene | 89,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(a)anthracene | 110,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(b)fluoranthene | 100,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(k)fluoranthene | <48,000ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Benzo(a)pyrene | 92,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Indeno(1,2,3-cd)pyrene | 54,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Dibenzo(a,h)anthracene | <48,000ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Benzo(ghi)perylene | 54,000ug/kg dw | | 05/02/02 | | | SA3384 |

ID:10802031 Mat:Soil POLKA DOT LAUNDRAMAT GTS-4 8'-12'L 1025H 04/17/02 G

| PARAMETERS | RESULTS | TIME | DATE ANAL. | KEY | KEY | FILE# |
|-----------------------------------|--------------|------|------------|-----|-----|--------|
| Percent Solids | 81% | | 05/07/02 | | | WD9179 |
| Polynuclear Aromatic Hydrocarbons | | | | | | |
| Naphthalene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Acenaphthylene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Acenaphthene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Fluorene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Phenanthrene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Anthracene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Fluoranthene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Pyrene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Chrysene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(a)anthracene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(b)fluoranthene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(k)fluoranthene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(a)pyrene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Indeno(1,2,3-cd)pyrene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Dibenzo(a,h)anthracene | <410ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(ghi)perylene | <410ug/kg dw | | 05/01/02 | | | SA3384 |

lw = Dry weight

DATE: 05/08/02

Upstate Laboratories, Inc.

Analysis Results

Report Number: 10802028

Client I.D.: GEOSCIENCE TECHNICAL SERVICES

APPROVAL

QC: 

Lab I.D.: 10170

Sampled by: Client

ID:10802032 Mat:Soil POLKA DOT LAUNDRAMAT GTS-5 8'-12' 1100H 04/17/02 G

| PARAMETERS | RESULTS | TIME | DATE ANAL. | KEY | KEY | FILE# |
|-----------------------------------|--------------|------|------------|-----|-----|--------|
| Percent Solids | 80% | | 05/07/02 | | | WD9179 |
| Polynuclear Aromatic Hydrocarbons | | | | | | |
| Naphthalene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Acenaphthylene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Acenaphthene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Fluorene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Phenanthrene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Anthracene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Fluoranthene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Pyrene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Chrysene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(a)anthracene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(b)fluoranthene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(k)fluoranthene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(a)pyrene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Indeno(1,2,3-cd)pyrene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Dibenzo(a,h)anthracene | <420ug/kg dw | | 05/01/02 | | | SA3384 |
| Benzo(ghi)perylene | <420ug/kg dw | | 05/01/02 | | | SA3384 |

ID:10802033 Mat:Soil POLKA DOT LAUNDRAMAT GTS-6 0'-4'L 1120H 04/17/02 G

| PARAMETERS | RESULTS | TIME | DATE ANAL. | KEY | KEY | FILE# |
|-----------------------------------|----------------|------|------------|-----|-----|--------|
| Percent Solids | 89% | | 05/07/02 | | | WD9179 |
| Polynuclear Aromatic Hydrocarbons | | | | | | |
| Naphthalene | 18,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Acenaphthylene | <3700ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Acenaphthene | 7900ug/kg dw | | 05/02/02 | | | SA3384 |
| Fluorene | 5600ug/kg dw | | 05/02/02 | | | SA3384 |
| Phenanthrene | 26,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Anthracene | 5400ug/kg dw | | 05/02/02 | | | SA3384 |
| Fluoranthene | 9400ug/kg dw | | 05/02/02 | | | SA3384 |
| Pyrene | 13,000ug/kg dw | | 05/02/02 | | | SA3384 |
| Chrysene | <3700ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Benzo(a)anthracene | 4300ug/kg dw | | 05/02/02 | | | SA3384 |
| Benzo(b)fluoranthene | <3700ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Benzo(k)fluoranthene | <3700ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Benzo(a)pyrene | <3700ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Indeno(1,2,3-cd)pyrene | <3700ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Dibenzo(a,h)anthracene | <3700ug/kg dw | | 05/02/02 | 5 | | SA3384 |
| Benzo(ghi)perylene | <3700ug/kg dw | | 05/02/02 | 5 | | SA3384 |

lw = Dry weight

KEY PAGE

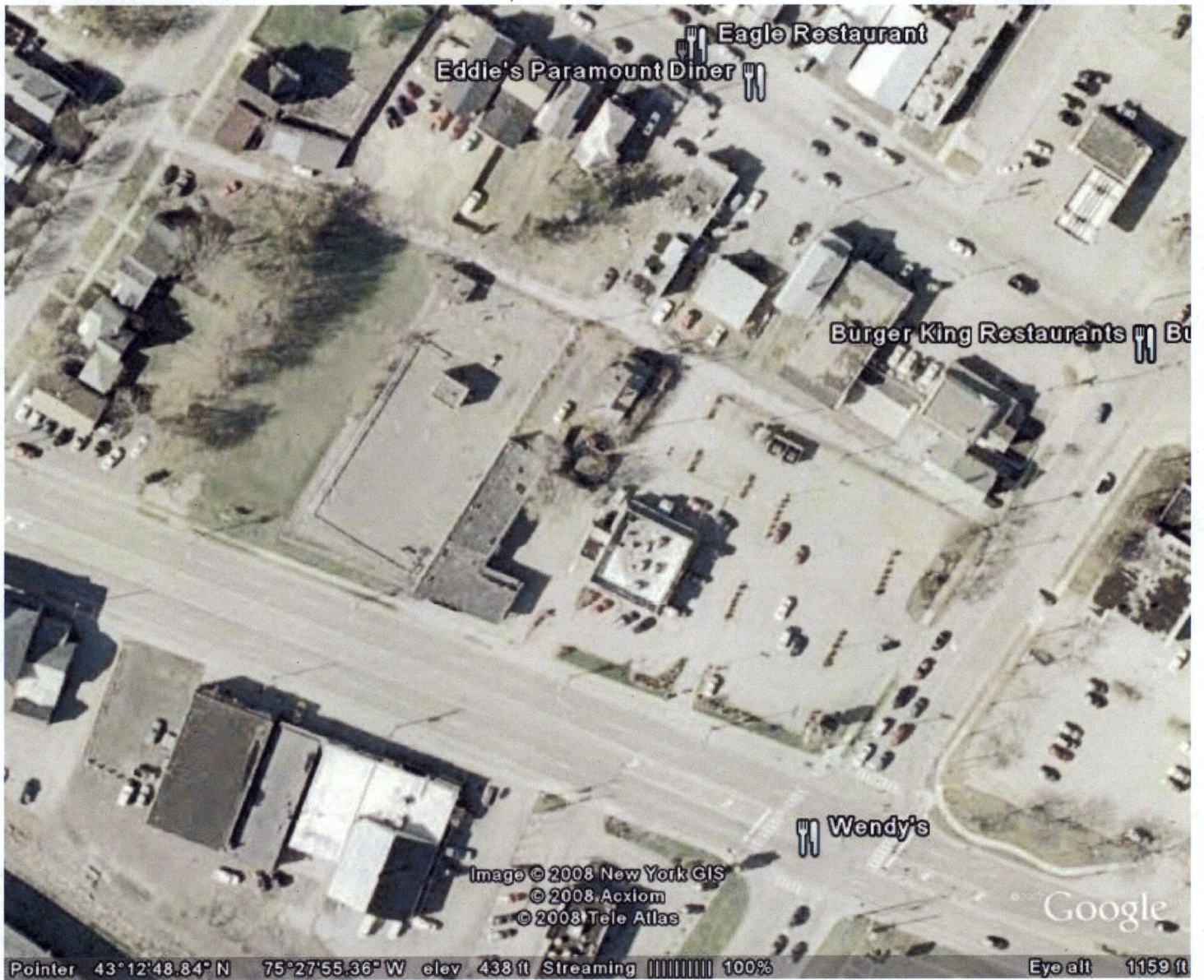
1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
2 REFERENCE SAMPLE/CCV RECOVERY WAS OUTSIDE OF CONTROL LIMITS
3 METHOD BLANK RESULT WAS ABOVE THE CONTROL LIMITS
4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
6 BLANK CORRECTED
7 HEAD SPACE PRESENT IN SAMPLE
8 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE
9 QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
10 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
11 RESULTS ARE REPORTED ON AN AS REC.D BASIS
12 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY
13 SAMPLE ANALYZED OVER HOLDING TIME
14 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM
15 THE FILTERING PROCEDURE
16 SAMPLED BY ULI
17 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE
18 WITHIN EXPERIMENTAL ERROR
19 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
20 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
21 THE SERIAL DILUTION OF THIS SAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL
22 INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
23 CALCULATION BASED ON DRY WEIGHT
24 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION
25 LIMITS
26 UG/KG AS REC.D / UG/KG DRY WT
27 MG/KG AS REC.D / MG/KG DRY WT
28 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
29 SAMPLE DILUTED/BLANK CORRECTED
30 ND(NON-DETECTED)
31 DUPLICATE SAMPLE OUTSIDE QC CRITERIA
32 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
33 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL
34 LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
35 ANALYZED BY METHOD OF STANDARD ADDITIONS
36
37 FIELD MEASURED PARAMETER TAKEN BY CLIENT
38 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
39 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS)/ POUNDS (LBS)
40 PER DAY LAS
41 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED
42 TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20,
43 CREATING A THEORETICAL TCLP VALUE
44 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON
45 PETROLEUM DISTILLATES
46 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
47 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
48 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LBS)
49 PER DAY OF CL2
50 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
51 (B) DETECTED IN BLANK
52 (D) ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT A SECONDARY DILUTION FACTOR
53 (E) COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE GC/MS
54 INSTRUMENT FOR THAT SPECIFIC ANALYSIS
55 (J) DETECTED BELOW THE CRQL
56 (a) SAMPLE(S) RECEIVED AT THE IMPROPER TEMPERATURE
57 (b) HEADSPACE IN VOA VIAL(S)
58 (c) HEADSPACE IN ALKALINITY BOTTLE(S)
59 (d) SAMPLE CONTAINER(S) RECEIVED BROKEN

Chain Of Custody Record

5/1

| | | | | | | | |
|--|---------|---|------|---|---------------|--|---------|
| Client: Geoscience Tech, LLC | | Client Project # / Project Name: Pelka Det Laundry | | No. of Containers: _____ | | Special Turnaround Time (Lab Notification required): _____ | |
| Client Contact: David Cook | | Site Location (city/state): Rome NY | | 1) _____ | | 2) _____ | |
| Sample Location: | | Date | Time | Matrix | Grab or Comp. | ULI Internal Use Only | Remarks |
| GTS-1 4'-8'W | 4/17/02 | 0840 | 50.1 | grab | | 10802028 | |
| GTS-2 8'-12'W | | 0910 | | | | 29 | |
| GTS-3 4'-8'W | | 0945 | | | | 30 | |
| GTS-4 8'-12'W | | 1025 | | | | 31 | |
| GTS-5 8'-12'W | | 1100 | | | | 32 | |
| GTS-6 0'-4'W | | 1120 | | | | 33 | |
| parameter and method 1) SUDC's - PAH's 8270 2) 3) 4) 5) 6) 7) 8) 9) 0) | | | | | | | |
| sample bottle: | | | | type | size | pres. | |
| | | | | glass | 8oz | none | |
| Sampled by: (Please Print) David Cook | | | | ULI Internal Use Only | | | |
| Company: GTS | | | | Delivery (check one): <input type="checkbox"/> ULI Sampled <input type="checkbox"/> Pickup <input checked="" type="checkbox"/> Dropoff <input type="checkbox"/> CC Client | | | |
| Relinquished by: (Signature) <i>David Cook</i> | | | | Date | Time | Received by: (Signature) | |
| | | | | 4/17/02 | 1432 | | |
| Relinquished by: (Signature) | | | | Date | Time | Received by: (Signature) | |
| | | | | | | | |
| Relinquished by: (Signature) | | | | Date | Time | Received by: (Signature) | |
| | | | | | | | |
| Relinquished by: (Signature) | | | | Date | Time | Rec'd for Lab by: (Signature) | |
| | | | | 4/17/02 | 1442 | <i>P. O'Leary</i> | |

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.



Eagle Restaurant
Eddie's Paramount Diner

Burger King Restaurants

Wendy's

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Google

Pointer 43°12'48.84" N 75°27'55.36" W elev 438 ft Streaming 100%

Eye alt 1159 ft