

**Notification For Hazardous Substance Discharge
 (Non-Emergency Only)**

Form 4400-225 (R 06/17)

Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003

Notice: Hazardous substance discharges must be reported immediately according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than \$10 nor more than \$5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from (**check one**):

- Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
- Aboveground Petroleum Storage Tank System 02-41-58101c
- Dry Cleaner Facility
- Other - Describe: reworked soil fill

ATTN DNR: **R & R Program Associate**

Date DNR Notified: **02/16/2018**

1. Discharge Reported By

Name Adam Roder	Firm The Sigma Group, Inc.	Phone Number (include area code) (414) 643-4200
Mailing Address 1300 W. Canal Street, Milwaukee, WI 53233	Email aroder@thesigmagroup.com	

2. Site Information

Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property.

MSOE Diercks Computational Science Hall Development

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60.

1025 N. Milwaukee Street

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.

Milwaukee

53202

County Milwaukee	Legal Description: NW 1/4 of NW 1/4 Section 28, Town 07 N, Range 22 <input checked="" type="radio"/> E <input type="radio"/> W	WTM: X 690440 Y 287865
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3. Responsible Party (RP) and/or RP Representative

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Milwaukee School of Engineering

A local governmental unit claiming an exemption from state Spill Law and Solid Waste Management responsibilities for the discharge being reported, per Wis. Stat. §§ 292.11(9)(e) and 292.23, should: 1) check this box; 2) review DNR publication RR-055; and 3) provide documentation to DNR that demonstrates compliance with the statutory requirements of the liability exemptions. Local governmental units may also request a fee-based liability clarification letter from DNR by using DNR Form 4400-237.

Contact Person Name (if different) Dr. Blake Wentz	Phone Number (414) 277-2204	Email wentz@msoe.edu
Mailing Address 1025 N. Broadway	City Milwaukee	State WI
		ZIP Code 53202

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Contact Person Name (if different)	Phone Number	Email
Mailing Address	City	State
		ZIP Code

(continued)

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Adam Roder The Sigma Group, Inc.

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4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- | | | |
|---|---|--|
| <input type="checkbox"/> VOCs
<input type="checkbox"/> PCE
<input type="checkbox"/> TCE
<input type="checkbox"/> Other Chlorinated
<input type="checkbox"/> Diesel
<input type="checkbox"/> Fuel Oil
<input type="checkbox"/> Gasoline
<input type="checkbox"/> Hydraulic Oil
<input type="checkbox"/> Jet Fuel | <i>(VOCs continued)</i>
<input type="checkbox"/> Mineral Oil
<input type="checkbox"/> Waste Oil
<input type="checkbox"/> Petroleum-Unknown Type
<input checked="" type="checkbox"/> PAHs
<input type="checkbox"/> PCBs
<input type="checkbox"/> Cyanide
<input type="checkbox"/> Leachate
<input type="checkbox"/> Manure | <input type="checkbox"/> Metals
<input type="checkbox"/> Arsenic
<input type="checkbox"/> Chromium
<input checked="" type="checkbox"/> Lead
<input type="checkbox"/> Other: _____
<input type="checkbox"/> Pesticides: _____
<input type="checkbox"/> Fertilizer: _____
<input type="checkbox"/> RCRA Hazardous Waste: _____
<input type="checkbox"/> Other: _____
<input type="checkbox"/> Unknown |
|---|---|--|

5. Impacts to the Environment Information

Enter "K" for known/confirmed or "P" for potential for all that apply.

- | | | |
|--|---|--|
| <input type="checkbox"/> Air Contamination | <input type="checkbox"/> Fire Explosion Threat | <input checked="" type="checkbox"/> Soil Contamination |
| <input type="checkbox"/> Co-mingled (Petroleum & Non-Petroleum) | <input type="checkbox"/> Free Product | <input type="checkbox"/> Soil Gas Contamination |
| <input type="checkbox"/> Contamination in Fractured Bedrock | <input type="checkbox"/> Groundwater Contamination | <input type="checkbox"/> Sub-slab Vapor Contamination |
| <input type="checkbox"/> Contamination Within 1 Meter of Bedrock | <input type="checkbox"/> Off-Site Contamination | <input type="checkbox"/> Surface Water Contamination |
| <input type="checkbox"/> Contaminated Private Well | <input type="checkbox"/> Sanitary Sewer Contamination | <input type="checkbox"/> Within 100 ft of Private Well |
| <input type="checkbox"/> Contaminated Public Well | <input type="checkbox"/> Storm Sewer Contamination | <input type="checkbox"/> Within 1000 ft of Public Well |
| <input type="checkbox"/> Contamination in Right of Way | <input type="checkbox"/> Sediment Contamination | |
| | Other (specify): _____ | |

Contamination was discovered as a result of:

- | | | |
|--|---|--|
| <input type="checkbox"/> Tank closure assessment | <input checked="" type="checkbox"/> Site assessment | <input type="checkbox"/> Other - Describe: _____ |
| Date <input type="text"/> | Date <input type="text" value="12/01/2017"/> | Date <input type="text"/> |

Lab results: Lab results will be faxed upon receipt Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

Identified impacts likely associated with reworked soil fill historically placed at the site. No point sources or spills are known to exist.

6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))

- | | |
|---|--|
| <p>For all confirmed releases from USTs occurring after 9/30/2007 please provide the following information:</p> <p style="text-align: center;"><u>Source</u></p> <input type="checkbox"/> Tank
<input type="checkbox"/> Piping
<input type="checkbox"/> Dispenser
<input type="checkbox"/> Submersible Turbine Pump
<input type="checkbox"/> Delivery Problem
<input checked="" type="checkbox"/> Does not apply.
<input type="checkbox"/> Other (specify): _____ | <p style="text-align: center;"><u>Cause</u></p> <input type="checkbox"/> Spill
<input type="checkbox"/> Overfill
<input type="checkbox"/> Corrosion
<input type="checkbox"/> Physical or Mechanical Damage
<input type="checkbox"/> Installation Problem
<input type="checkbox"/> Other (does not fit any of above)
<input type="checkbox"/> Unknown |
|---|--|

Contact information to report non-emergency releases in DNR's five regions are as follows:

Northeast Region (FAX: 920-662-5413); Attention -- R&R Program Associate: DNRRRNER@wisconsin.gov

Brown, Calumet, Door, Fond du Lac (except City of Waupun - see South Central Region), Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara, Winnebago counties

Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate: DNRRRNOR@wisconsin.gov

Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn counties

South Central Region (FAX: 608-273-5610); Attention -- R&R Program Associate: DNRRRSCR@wisconsin.gov

Columbia, Dane, Dodge, Fond du Lac (City of Waupun only), Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk, Walworth counties

Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate: DNRRRSER@wisconsin.gov

Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties

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West Central Region (FAX: 715-839-6076); Attention -- R&R Program Associate: DNRRRWCR@wisconsin.gov

Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-138121-1
Client Project/Site: Diercks Science Hall 17076

For:
Sigma Group Inc., The
1300 West Canal Street
Milwaukee, Wisconsin 53233

Attn: Adam Roder



Authorized for release by:
12/15/2017 1:43:01 PM
Jim Knapp, Project Manager II
(630)758-0262
jim.knapp@testamericainc.com

Designee for
Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

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Have a Question?



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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Job ID: 500-138121-1

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-138121-1**

Comments

No additional comments.

Receipt

The samples were received on 12/5/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for the preparation batch 413492 recovered outside control limits for the following analytes: 2-Chlorotoluene and 2,2-Dichloropropane. These analytes were biased high in the preparation batch LCS, but were within limits in the analytical batch LCS 413545 and were not detected in the associated samples; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Client Sample ID: GP-1 (2-4')

Lab Sample ID: 500-138121-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	10	J	35	4.7	ug/Kg	1	☼	8270D	Total/NA
Anthracene	24	J	35	5.9	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	120		35	4.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	130		35	6.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	180		35	7.6	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	63	F1	35	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	91		35	10	ug/Kg	1	☼	8270D	Total/NA
Chrysene	120		35	9.6	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	7.1	J F1	35	6.8	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	250		35	6.5	ug/Kg	1	☼	8270D	Total/NA
Fluorene	6.8	J	35	5.0	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	68	F1	35	9.2	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	6.1	J	35	5.4	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	100		35	4.9	ug/Kg	1	☼	8270D	Total/NA
Pyrene	200		35	7.0	ug/Kg	1	☼	8270D	Total/NA
Arsenic	2.8		1.0	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	25	V	1.0	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.097	J	0.20	0.037	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.4		1.0	0.51	mg/Kg	1	☼	6010B	Total/NA
Lead	42	F1 V	0.51	0.24	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.047	F1	0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-1 (10-11')

Lab Sample ID: 500-138121-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.9		0.94	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	22		0.94	0.11	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.095	J	0.19	0.034	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.94	0.46	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.47	0.22	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.015	J	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-2 (2-4')

Lab Sample ID: 500-138121-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	19	J	77	9.4	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	19	J	77	7.1	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	32	J	38	6.9	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	60		38	5.1	ug/Kg	1	☼	8270D	Total/NA
Anthracene	170		38	6.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	630		38	5.2	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	630		38	7.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	980		38	8.3	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	280		38	12	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	380		38	11	ug/Kg	1	☼	8270D	Total/NA
Chrysene	630		38	10	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	92		38	7.4	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	1300		38	7.1	ug/Kg	1	☼	8270D	Total/NA
Fluorene	40		38	5.4	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	290		38	9.9	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Client Sample ID: GP-2 (2-4') (Continued)

Lab Sample ID: 500-138121-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	28	J	38	5.9	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	610		38	5.3	ug/Kg	1	☼	8270D	Total/NA
Pyrene	1000		38	7.6	ug/Kg	1	☼	8270D	Total/NA
Arsenic	4.4		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	110		1.1	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.38		0.21	0.038	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		1.1	0.52	mg/Kg	1	☼	6010B	Total/NA
Lead	170		0.53	0.24	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.21		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-2 (14-16')

Lab Sample ID: 500-138121-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.3		1.0	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	13		1.0	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	J	0.21	0.038	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.8		1.0	0.52	mg/Kg	1	☼	6010B	Total/NA
Lead	7.8		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.019		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-3 (4-6')

Lab Sample ID: 500-138121-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	8.2	J	39	7.1	ug/Kg	1	☼	8270D	Total/NA
Anthracene	30	J	39	6.6	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	49		39	5.3	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	75		39	7.6	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	98		39	8.5	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	51		39	13	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	26	J	39	12	ug/Kg	1	☼	8270D	Total/NA
Chrysene	59		39	11	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	230		39	7.3	ug/Kg	1	☼	8270D	Total/NA
Fluorene	10	J	39	5.5	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	47		39	10	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	200		39	5.5	ug/Kg	1	☼	8270D	Total/NA
Pyrene	130		39	7.8	ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.6		1.1	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	27		1.1	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.059	J	0.21	0.039	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		1.1	0.53	mg/Kg	1	☼	6010B	Total/NA
Lead	6.3		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.023		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-3 (12-14')

Lab Sample ID: 500-138121-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	12	J	70	8.5	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	14	J	70	6.4	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	37		34	6.2	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	9.5	J	34	4.6	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Client Sample ID: GP-3 (12-14') (Continued)

Lab Sample ID: 500-138121-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	280		34	5.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1000		34	4.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	880		34	6.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1600		34	7.5	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	400		34	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	820		34	10	ug/Kg	1	☼	8270D	Total/NA
Chrysene	1300		34	9.4	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	110		34	6.7	ug/Kg	1	☼	8270D	Total/NA
Fluorene	59		34	4.9	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	420		34	9.0	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	11	J	34	5.3	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	2100		34	4.8	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene - DL	5300		170	32	ug/Kg	5	☼	8270D	Total/NA
Pyrene - DL	3000		170	34	ug/Kg	5	☼	8270D	Total/NA
Arsenic	4.2		1.1	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	18		1.1	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	J	0.22	0.039	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.4		1.1	0.54	mg/Kg	1	☼	6010B	Total/NA
Lead	7.5		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.019		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-4 (4-6')

Lab Sample ID: 500-138121-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.0		0.97	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	15		0.97	0.11	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	J	0.19	0.035	mg/Kg	1	☼	6010B	Total/NA
Chromium	4.8		0.97	0.48	mg/Kg	1	☼	6010B	Total/NA
Lead	6.6		0.49	0.22	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.0076	J	0.016	0.0054	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-5 (4-6')

Lab Sample ID: 500-138121-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	16	J	77	9.3	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	20	J	77	7.0	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	30	J	38	6.8	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	62		38	5.0	ug/Kg	1	☼	8270D	Total/NA
Anthracene	98		38	6.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	410		38	5.1	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	430		38	7.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	580		38	8.2	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	230		38	12	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	280		38	11	ug/Kg	1	☼	8270D	Total/NA
Chrysene	440		38	10	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	90		38	7.4	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	1000		38	7.1	ug/Kg	1	☼	8270D	Total/NA
Fluorene	32	J	38	5.4	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	260		38	9.9	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	35	J	38	5.9	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Client Sample ID: GP-5 (4-6') (Continued)

Lab Sample ID: 500-138121-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	480		38	5.3	ug/Kg	1	☼	8270D	Total/NA
Pyrene	770		38	7.6	ug/Kg	1	☼	8270D	Total/NA
Arsenic	3.6		1.1	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	73		1.1	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.22	0.039	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		1.1	0.53	mg/Kg	1	☼	6010B	Total/NA
Lead	160		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.36		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-5 (12-14)

Lab Sample ID: 500-138121-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	14	J	38	7.4	ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.9		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	16		1.1	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.10	J	0.21	0.038	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.6		1.1	0.52	mg/Kg	1	☼	6010B	Total/NA
Lead	5.4		0.53	0.24	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.010	J	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-6 (4-6')

Lab Sample ID: 500-138121-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	8.8	J	36	4.7	ug/Kg	1	☼	8270D	Total/NA
Anthracene	12	J	36	6.0	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	57		36	4.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	86		36	7.0	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	100		36	7.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	49		36	12	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	42		36	11	ug/Kg	1	☼	8270D	Total/NA
Chrysene	64		36	9.8	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	14	J	36	6.9	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	110		36	6.7	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	44		36	9.3	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	44		36	5.0	ug/Kg	1	☼	8270D	Total/NA
Pyrene	110		36	7.1	ug/Kg	1	☼	8270D	Total/NA
Arsenic	2.3		1.0	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	19		1.0	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	J	0.21	0.038	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.0		1.0	0.52	mg/Kg	1	☼	6010B	Total/NA
Lead	41		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.055		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-6 (10-11')

Lab Sample ID: 500-138121-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.5		0.98	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	16		0.98	0.11	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	J	0.20	0.035	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.98	0.48	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Client Sample ID: GP-6 (10-11') (Continued)

Lab Sample ID: 500-138121-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	10		0.49	0.23	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.011	J	0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-7 (0-2')

Lab Sample ID: 500-138121-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	15	J	36	7.1	ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.8		1.1	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	13		1.1	0.13	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.097	J	0.22	0.040	mg/Kg	1	☼	6010B	Total/NA
Chromium	6.7		1.1	0.54	mg/Kg	1	☼	6010B	Total/NA
Lead	6.4		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.011	J	0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-7 (8-10')

Lab Sample ID: 500-138121-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	24	J	35	4.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	69		35	6.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	67		35	7.5	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	60		35	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	20	J	35	10	ug/Kg	1	☼	8270D	Total/NA
Chrysene	37		35	9.5	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	40		35	6.7	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	53		35	6.5	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	42		35	9.0	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	10	J	35	4.9	ug/Kg	1	☼	8270D	Total/NA
Pyrene	49		35	6.9	ug/Kg	1	☼	8270D	Total/NA
Arsenic	2.7		1.0	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	8.3		1.0	0.12	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J	0.20	0.036	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.4		1.0	0.50	mg/Kg	1	☼	6010B	Total/NA
Lead	6.3		0.51	0.23	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.014	J	0.016	0.0052	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-8 (4-6')

Lab Sample ID: 500-138121-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.3		1.0	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	11		1.0	0.11	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	J	0.20	0.036	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.9		1.0	0.50	mg/Kg	1	☼	6010B	Total/NA
Lead	8.3		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.012	J	0.016	0.0052	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-8 (16-18')

Lab Sample ID: 500-138121-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	16	J	35	4.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	85		35	6.8	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Client Sample ID: GP-8 (16-18') (Continued)

Lab Sample ID: 500-138121-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	61		35	7.6	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	77		35	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	14	J	35	10	ug/Kg	1	☼	8270D	Total/NA
Chrysene	35		35	9.6	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	43		35	6.8	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	25	J	35	6.5	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	44		35	9.1	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	9.3	J	35	4.9	ug/Kg	1	☼	8270D	Total/NA
Pyrene	35		35	7.0	ug/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		0.93	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	9.3		0.93	0.11	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21		0.19	0.033	mg/Kg	1	☼	6010B	Total/NA
Chromium	5.9		0.93	0.46	mg/Kg	1	☼	6010B	Total/NA
Lead	6.5		0.46	0.21	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.0077	J	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: GP-9 (4-6')

Lab Sample ID: 500-138121-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	6.9	J	38	6.3	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	9.9	J	38	5.1	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	18	J	38	7.4	ug/Kg	1	☼	8270D	Total/NA
Chrysene	11	J	38	10	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	45		38	7.0	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	50		38	5.3	ug/Kg	1	☼	8270D	Total/NA
Pyrene	29	J	38	7.5	ug/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		1.1	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	46		1.1	0.13	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.072	J	0.22	0.040	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		1.1	0.56	mg/Kg	1	☼	6010B	Total/NA
Lead	7.4		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.72	J	1.1	0.66	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.033		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 500-138121-17

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Sigma Group Inc., The
Project/Site: Diercks Science Hall 17076

TestAmerica Job ID: 500-138121-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-138121-1	GP-1 (2-4')	Solid	12/01/17 12:15	12/05/17 09:30
500-138121-2	GP-1 (10-11')	Solid	12/01/17 12:15	12/05/17 09:30
500-138121-3	GP-2 (2-4')	Solid	12/01/17 11:30	12/05/17 09:30
500-138121-4	GP-2 (14-16')	Solid	12/01/17 11:30	12/05/17 09:30
500-138121-5	GP-3 (4-6')	Solid	12/01/17 08:10	12/05/17 09:30
500-138121-6	GP-3 (12-14')	Solid	12/01/17 08:10	12/05/17 09:30
500-138121-7	GP-4 (4-6')	Solid	12/01/17 11:05	12/05/17 09:30
500-138121-8	GP-5 (4-6')	Solid	12/01/17 14:00	12/05/17 09:30
500-138121-9	GP-5 (12-14')	Solid	12/01/17 14:00	12/05/17 09:30
500-138121-10	GP-6 (4-6')	Solid	12/01/17 12:40	12/05/17 09:30
500-138121-11	GP-6 (10-11')	Solid	12/01/17 12:40	12/05/17 09:30
500-138121-12	GP-7 (0-2')	Solid	12/01/17 09:20	12/05/17 09:30
500-138121-13	GP-7 (8-10')	Solid	12/01/17 09:20	12/05/17 09:30
500-138121-14	GP-8 (4-6')	Solid	12/01/17 09:50	12/05/17 09:30
500-138121-15	GP-8 (16-18')	Solid	12/01/17 09:50	12/05/17 09:30
500-138121-16	GP-9 (4-6')	Solid	12/01/17 07:55	12/05/17 09:30
500-138121-17	Trip Blank	Solid	12/01/17 00:00	12/05/17 09:30

