

Analytical Report for

EA Engineering

Certificate of Analysis No.: 11090215

Project Manager: Pete Lekas

Project Name : Gude Landfill

Project Location: Rockville MD



September 22, 2011

Phase Separation Science, Inc.

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PHASE SEPARATION SCIENCE, INC.



September 22, 2011

Pete Lekas
EA Engineering
15 Loveton Circle
Sparks, MD 21152

Reference: PSS Work Order No: **11090215**
Project Name: Gude Landfill
Project Location: Rockville MD

Dear Pete Lekas :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order numbered **11090215**.

All work reported herein has been performed in accordance with current NELAP standards referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on November 1, 2011. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

A handwritten signature in black ink, appearing to read 'John Richardson', with a circular stamp or mark at the end.

John Richardson
Laboratory Director



Sample Summary
Client Name: EA Engineering
Project Name: Gude Landfill

Project ID: N/A

Work Order Number: 11090215

The following samples were received under chain of custody by Phase Separation Science (PSS) on 09/02/2011 at 03:45 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
11090215-001	TGW-03-090111	GROUND WATER	09/01/2011 09:09
11090215-002	TGW-03-090111 (Diss. Met.)	GROUND WATER	09/01/2011 09:09
11090215-003	TGW-04-090111	GROUND WATER	09/01/2011 10:21
11090215-004	TGW-04-090111 (Diss. Met.)	GROUND WATER	09/01/2011 10:21
11090215-005	TGW-05-090111	GROUND WATER	09/01/2011 09:10
11090215-006	TGW-05-090111 (Diss. Met.)	GROUND WATER	09/01/2011 09:10
11090215-007	TGW-07-090111	GROUND WATER	09/01/2011 14:00
11090215-008	TGW-07-090111 (Diss. Met.)	GROUND WATER	09/01/2011 14:00
11090215-009	TGW-08-090111	GROUND WATER	09/01/2011 14:04
11090215-010	TGW-06-090111	GROUND WATER	09/01/2011 12:50
11090215-011	DUP-01-090211	GROUND WATER	09/02/2011 08:00
11090215-012	DUP-01-090211 (Diss. Met.)	GROUND WATER	09/02/2011 08:00
11090215-013	MW-14A-090211	GROUND WATER	09/02/2011 08:15
11090215-014	MW-14A-090211 (Diss. Met.)	GROUND WATER	09/02/2011 08:15
11090215-015	MW-14B-090211	GROUND WATER	09/02/2011 09:40
11090215-016	MW-14B-090211 (Diss. Met.)	GROUND WATER	09/02/2011 09:40
11090215-017	MW-15-090211	GROUND WATER	09/02/2011 10:45
11090215-018	MW-15-090211 (Diss. Met.)	GROUND WATER	09/02/2011 10:45
11090215-019	TGW-02-090211	GROUND WATER	09/02/2011 08:20
11090215-020	TGW-02-090211 (Diss. Met.)	GROUND WATER	09/02/2011 08:20
11090215-021	TGW-01-090211	GROUND WATER	09/02/2011 10:41
11090215-022	TGW-10-090211	GROUND WATER	09/02/2011 12:47
11090215-023	TGW-10-090211 (Diss. Met.)	GROUND WATER	09/02/2011 12:47
11090215-024	Trip Blank	GROUND WATER	09/01/2011 00:00
11090215-025	TGW-09-090111	GROUND WATER	09/01/2011 12:48

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of common laboratory contaminants such as acetone, methylene chloride and phthalates, may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. The following analytical results are never reported on a dry weight basis: pH, flashpoint, moisture and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].



Sample Summary

Client Name: EA Engineering
Project Name: Gude Landfill

Project ID: N/A

Work Order Number: 11090215

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the LOD.
- LOD Limit of Detection. An estimate of the minimum amount of a substance that an analytical process can reliably detect.
An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.



Case Narrative Summary

Client Name: EA Engineering

Project Name: Gude Landfill

Project ID: N/A

Work Order Number: 11090215

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Sample Receipt:

Sample "TGW-07-090111" logged in for Pest/PCB instead of herbicides per client email. Logged in for all tests per previous discussions (some missing on COC), verified with client 9/7/11.

Analyses associated with analyst code 4005 were performed by Enviro-Chem Laboratories, Inc.

General Comments:

Please see Test America report for Organophosphorus Pesticides and Sulfide results.

Analytical:

Total Metals plus Hardness

Batch: 92857

Opening CCV Calcium exceedance of 114% and Barium of 111%; limits are 90-110%. Closing CCV

Magnesium exceedance of 111%; limits are 90-110%

Chlorinated Herbicides-2,4D & 2,4,5TP

Batch: 92656

The surrogate spike was not added to sample 11090215-022 therefore no spike recovery data is available for that sample.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

EPA 350.1, EPA 410.4, SM 2320B

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-03-090111 **Date/Time Sampled: 09/01/2011 09:09** **PSS Sample ID: 11090215-001**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity Analytical Method: EPA 180.1

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	3,200	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034

Chloride, Sulfate, Nitrate Analytical Method: EPA 300.0 Preparation Method: E300.OP

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	70	mg/L	0.2		1	0.1	09/02/11	09/02/11 16:13	1035
Nitrate (as N)	0.2	mg/L	0.1		1	0.05	09/02/11	09/02/11 16:13	1035
Sulfate	15	mg/L	0.2		1	0.1	09/02/11	09/02/11 16:13	1035

Nitrogen Ammonia Analytical Method: EPA 350.1

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	1.11	mg/L	0.20		0.2	09/08/11	09/08/11 12:10	4005

Chemical Oxygen Demand Analytical Method: EPA 410.4

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	142	mg/L	20.0		20	09/06/11	09/06/11 13:25	4005

Alkalinity Analytical Method: SM 2320B

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	68.0	mg/L	5.0		5	09/06/11	09/06/11 14:21	4005

Specific conductance Analytical Method: SM 2510B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	390	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044

Total Dissolved Solids Analytical Method: SM 2540C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	280	mg/L	10		1	10	09/07/11	09/07/11 15:40	1034

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Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

pH, Electrometric Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	6.0	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Arsenic	5.3	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Barium	280	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Beryllium	1.7	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Hardness (Ca & Mg)	92	mg/L	6.6		10	7	09/14/11	09/14/11 15:23	1034
Cadmium	4.5	ug/L	1.0		1	0.5	09/14/11	09/15/11 16:59	1034
Chromium	22	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Cobalt	49	ug/L	1.0		1	0.5	09/14/11	09/15/11 16:59	1034
Copper	100	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Lead	38	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 15:23	1034
Nickel	24	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Selenium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 15:23	1034
Thallium	0.7	ug/L	1.0	J	1	0.5	09/14/11	09/14/11 15:23	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 15:23	1034
Vanadium	130	ug/L	5.0		1	2.5	09/14/11	09/14/11 15:23	1034
Zinc	64	ug/L	10		1	10	09/14/11	09/14/11 15:23	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-03-090111 **Date/Time Sampled: 09/01/2011 09:09** **PSS Sample ID: 11090215-001**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Endrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 21:23	1029
Toxaphene	ND	ug/L	2		1	1	09/07/11	09/08/11 21:23	1029
Chlordane	ND	ug/L	2		1	1	09/07/11	09/08/11 21:23	1029

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Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 14:55	1029
PCB-1221	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 14:55	1029
PCB-1232	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 14:55	1029
PCB-1242	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 14:55	1029
PCB-1248	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 14:55	1029
PCB-1254	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 14:55	1029
PCB-1260	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 14:55	1029

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	2		1	1.1	09/08/11	09/09/11 17:24	1029
2,4,5-TP (Silvex)	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 17:24	1029
2,4,5-T	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 17:24	1029
Dinoseb	ND	ug/L	1		1	0.56	09/08/11	09/09/11 17:24	1029

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Sample ID: TGW-03-090111 **Date/Time Sampled: 09/01/2011 09:09** **PSS Sample ID: 11090215-001**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Chloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Bromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Chloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Acetone	15	ug/L	5		1	5	09/09/11	09/10/11 10:25	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/09/11	09/10/11 10:25	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,1-Dichloroethane	2	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/09/11	09/10/11 10:25	1011
cis-1,2-Dichloroethene	3	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Chloroform	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Benzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Acrylonitrile	ND	ug/L	10		1	5	09/09/11	09/10/11 10:25	1011
Trichloroethene	2	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/09/11	09/10/11 10:25	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/09/11	09/10/11 10:25	1011

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No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-03-090111 **Date/Time Sampled: 09/01/2011 09:09** **PSS Sample ID: 11090215-001**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Toluene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/09/11	09/10/11 10:25	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Acrolein	ND	ug/L	20		1	10	09/09/11	09/10/11 10:25	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Bromoform	ND	ug/L	5		1	2.5	09/09/11	09/10/11 10:25	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/09/11	09/10/11 10:25	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/09/11	09/10/11 10:25	1011
Styrene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
o-Xylene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/09/11	09/10/11 10:25	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Naphthalene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:25	1011
Iodomethane	ND	ug/L	20		1	10	09/09/11	09/10/11 10:25	1011
Dimethyl sulfide (TIC)	6	ug/L	1		1	1	09/09/11	09/10/11 10:25	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-03-090111 **Date/Time Sampled: 09/01/2011 09:09** **PSS Sample ID: 11090215-001**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Acetophenone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 11:16	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Chrysene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-03-090111 **Date/Time Sampled: 09/01/2011 09:09** **PSS Sample ID: 11090215-001**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 11:16	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Fluorene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Isophorone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 11:16	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/06/11	09/07/11 11:16	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 11:16	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
Pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-03-090111 **Date/Time Sampled: 09/01/2011 09:09** **PSS Sample ID: 11090215-001**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:16	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: TGW-03-090111 (Diss. Met.) **Date/Time Sampled: 09/01/2011 09:09** **PSS Sample ID: 11090215-002**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Arsenic	4.4	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Barium	54	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Chromium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Cobalt	19	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Copper	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Lead	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 14:38	1034
Nickel	5.1	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 14:38	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 14:38	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 14:38	1034
Zinc	14	ug/L	10		1	10	09/12/11	09/12/11 14:38	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity		Analytical Method: EPA 180.1							
	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	1,500	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034
Chloride, Sulfate, Nitrate		Analytical Method: EPA 300.0				Preparation Method: E300.0P			
	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	110	mg/L	0.2		1	0.1	09/02/11	09/02/11 16:29	1035
Nitrate (as N)	0.3	mg/L	0.1		1	0.05	09/02/11	09/02/11 16:29	1035
Sulfate	7.6	mg/L	0.2		1	0.1	09/02/11	09/02/11 16:29	1035
Nitrogen Ammonia		Analytical Method: EPA 350.1							
	Result	Units	RL	Flag		LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	0.41	mg/L	0.20			0.2	09/08/11	09/08/11 12:10	4005
Chemical Oxygen Demand		Analytical Method: EPA 410.4							
	Result	Units	RL	Flag		LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	27.0	mg/L	20.0			20	09/06/11	09/06/11 13:25	4005
Alkalinity		Analytical Method: SM 2320B							
	Result	Units	RL	Flag		LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	25.0	mg/L	5.0			5	09/06/11	09/06/11 14:21	4005
Specific conductance		Analytical Method: SM 2510B							
	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	410	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044
Total Dissolved Solids		Analytical Method: SM 2540C							
	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	260	mg/L	5		1	5	09/07/11	09/07/11 15:40	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

pH, Electrometric

Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	5.3	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Arsenic	0.8	ug/L	1.0	J	1	0.5	09/14/11	09/14/11 16:09	1034
Barium	42	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Hardness (Ca & Mg)	110	mg/L	6.6		10	7	09/14/11	09/14/11 16:09	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Chromium	2.6	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Cobalt	12	ug/L	1.0		1	0.5	09/14/11	09/15/11 17:28	1034
Copper	2.3	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Lead	1.5	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Mercury	0.1	ug/L	0.20	J	1	0.1	09/14/11	09/14/11 16:09	1034
Nickel	17	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Selenium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:09	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 16:09	1034
Vanadium	4.5	ug/L	5.0	J	1	2.5	09/14/11	09/14/11 16:09	1034
Zinc	52	ug/L	10		1	10	09/14/11	09/14/11 16:09	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Endrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:53	1029
Toxaphene	ND	ug/L	2		1	1	09/07/11	09/09/11 01:53	1029
Chlordane	ND	ug/L	2		1	1	09/07/11	09/09/11 01:53	1029

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:29	1029
PCB-1221	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:29	1029
PCB-1232	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:29	1029
PCB-1242	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:29	1029
PCB-1248	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:29	1029
PCB-1254	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:29	1029
PCB-1260	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:29	1029

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	2		1	1.1	09/08/11	09/09/11 20:10	1029
2,4,5-TP (Silvex)	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 20:10	1029
2,4,5-T	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 20:10	1029
Dinoseb	ND	ug/L	1		1	0.53	09/08/11	09/09/11 20:10	1029

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Chloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Bromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Chloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Acetone	ND	ug/L	5		1	5	09/09/11	09/10/11 10:55	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/09/11	09/10/11 10:55	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/09/11	09/10/11 10:55	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Chloroform	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Benzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Acrylonitrile	ND	ug/L	10		1	5	09/09/11	09/10/11 10:55	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/09/11	09/10/11 10:55	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/09/11	09/10/11 10:55	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Toluene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/09/11	09/10/11 10:55	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Acrolein	ND	ug/L	20		1	10	09/09/11	09/10/11 10:55	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Bromoform	ND	ug/L	5		1	2.5	09/09/11	09/10/11 10:55	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/09/11	09/10/11 10:55	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/09/11	09/10/11 10:55	1011
Styrene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
o-Xylene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,4-Dichlorobenzene	0.6	ug/L	1	J	1	0.5	09/09/11	09/10/11 10:55	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/09/11	09/10/11 10:55	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Naphthalene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 10:55	1011
Iodomethane	ND	ug/L	20		1	10	09/09/11	09/10/11 10:55	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Acetophenone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 11:44	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Chrysene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 11:44	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Fluorene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Isophorone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 11:44	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/06/11	09/07/11 11:44	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 11:44	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
Pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-04-090111 **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-003**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 11:44	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: TGW-04-090111 (Diss. Met.) **Date/Time Sampled: 09/01/2011 10:21** **PSS Sample ID: 11090215-004**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Barium	32	ug/L	1.0		1	0.5	09/12/11	09/13/11 12:44	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Chromium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Cobalt	8.5	ug/L	1.0		1	0.5	09/12/11	09/13/11 12:44	1034
Copper	1.0	ug/L	1.0	J	1	0.5	09/12/11	09/12/11 15:01	1034
Lead	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Mercury	0.1	ug/L	0.20	J	1	0.1	09/12/11	09/12/11 15:01	1034
Nickel	14	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:01	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:01	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:01	1034
Zinc	44	ug/L	10		1	10	09/12/11	09/12/11 15:01	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-05-090111 **Date/Time Sampled: 09/01/2011 09:10** **PSS Sample ID: 11090215-005**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity Analytical Method: EPA 180.1

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	51	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034

Chloride, Sulfate, Nitrate Analytical Method: EPA 300.0 Preparation Method: E300.OP

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	65	mg/L	0.2		1	0.1	09/02/11	09/02/11 16:44	1035
Nitrate (as N)	0.2	mg/L	0.1		1	0.05	09/02/11	09/02/11 16:44	1035
Sulfate	13	mg/L	0.2		1	0.1	09/02/11	09/02/11 16:44	1035

Nitrogen Ammonia Analytical Method: EPA 350.1

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	0.22	mg/L	0.20		0.2	09/08/11	09/08/11 12:10	4005

Chemical Oxygen Demand Analytical Method: EPA 410.4

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	25.0	mg/L	20.0		20	09/06/11	09/06/11 13:25	4005

Alkalinity Analytical Method: SM 2320B

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	81.0	mg/L	5.0		5	09/06/11	09/06/11 14:21	4005

Specific conductance Analytical Method: SM 2510B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	360	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044

Total Dissolved Solids Analytical Method: SM 2540C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	220	mg/L	5		1	5	09/07/11	09/07/11 15:40	1034

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pH, Electrometric

Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	6.3	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Arsenic	12	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Barium	620	ug/L	100		100	50	09/14/11	09/19/11 18:31	1034
Beryllium	8.5	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Hardness (Ca & Mg)	290	mg/L	66		100	70	09/14/11	09/14/11 16:15	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/14/11	09/15/11 17:51	1034
Chromium	43	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Cobalt	140	ug/L	1.0		1	0.5	09/14/11	09/15/11 17:51	1034
Copper	71	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Lead	120	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 16:15	1034
Nickel	82	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Selenium	1.8	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:15	1034
Tin	3.4	ug/L	5.0	J	1	2.5	09/14/11	09/14/11 16:15	1034
Vanadium	38	ug/L	5.0		1	2.5	09/14/11	09/14/11 16:15	1034
Zinc	460	ug/L	10		1	10	09/14/11	09/15/11 17:51	1034

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Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
gamma-BHC (Lindane)	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
beta-BHC	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
delta-BHC	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Heptachlor	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Aldrin	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Heptachlor epoxide	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
gamma-Chlordane	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
alpha-Chlordane	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
4,4-DDE	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Endosulfan I	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Dieldrin	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Endrin	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
4,4-DDD	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Endosulfan II	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
4,4-DDT	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Endrin aldehyde	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Methoxychlor	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Endosulfan sulfate	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Endrin ketone	ND	ug/L	0.12		1	0.06	09/07/11	09/08/11 21:51	1029
Toxaphene	ND	ug/L	3		1	1.5	09/07/11	09/08/11 21:51	1029
Chlordane	ND	ug/L	3		1	1.5	09/07/11	09/08/11 21:51	1029

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Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.5		1	0.74	09/07/11	09/10/11 00:00	1029
PCB-1221	ND	ug/L	1.5		1	0.74	09/07/11	09/10/11 00:00	1029
PCB-1232	ND	ug/L	1.5		1	0.74	09/07/11	09/10/11 00:00	1029
PCB-1242	ND	ug/L	1.5		1	0.74	09/07/11	09/10/11 00:00	1029
PCB-1248	ND	ug/L	1.5		1	0.74	09/07/11	09/10/11 00:00	1029
PCB-1254	ND	ug/L	1.5		1	0.74	09/07/11	09/10/11 00:00	1029
PCB-1260	ND	ug/L	1.5		1	0.74	09/07/11	09/10/11 00:00	1029

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	4		1	2	09/08/11	09/09/11 17:58	1029
2,4,5-TP (Silvex)	ND	ug/L	0.4		1	0.2	09/08/11	09/09/11 17:58	1029
2,4,5-T	ND	ug/L	0.4		1	0.2	09/08/11	09/09/11 17:58	1029
Dinoseb	ND	ug/L	2		1	1	09/08/11	09/09/11 17:58	1029

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Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	13	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Chloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Vinyl Chloride	3	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Bromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Chloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Acetone	ND	ug/L	5		1	5	09/09/11	09/10/11 11:23	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/09/11	09/10/11 11:23	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
trans-1,2-Dichloroethene	0.9	ug/L	1	J	1	0.5	09/09/11	09/10/11 11:23	1011
1,1-Dichloroethane	14	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/09/11	09/10/11 11:23	1011
cis-1,2-Dichloroethene	33	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Chloroform	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,2-Dichloroethane	0.9	ug/L	1	J	1	0.5	09/09/11	09/10/11 11:23	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Benzene	1	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,2-Dichloropropane	3	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Acrylonitrile	ND	ug/L	10		1	5	09/09/11	09/10/11 11:23	1011
Trichloroethene	8	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/09/11	09/10/11 11:23	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/09/11	09/10/11 11:23	1011

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Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Toluene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/09/11	09/10/11 11:23	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Acrolein	ND	ug/L	20		1	10	09/09/11	09/10/11 11:23	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Bromoform	ND	ug/L	5		1	2.5	09/09/11	09/10/11 11:23	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/09/11	09/10/11 11:23	1011
Tetrachloroethene	5	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Chlorobenzene	1	ug/L	1	J	1	0.5	09/09/11	09/10/11 11:23	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/09/11	09/10/11 11:23	1011
Styrene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
o-Xylene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,4-Dichlorobenzene	1	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/09/11	09/10/11 11:23	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Naphthalene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:23	1011
Iodomethane	ND	ug/L	20		1	10	09/09/11	09/10/11 11:23	1011
Ethene, ethyloxy- (TIC)	5	ug/L	1		1	1	09/09/11	09/10/11 11:23	1011
Methane, dichlorofluoro- (TIC)	7	ug/L	1		1	1	09/09/11	09/10/11 11:23	1011

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Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Acenaphthylene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Acetophenone	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Anthracene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Benzo(a)anthracene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Benzo(a)pyrene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Benzo(b)fluoranthene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Benzo(g,h,i)perylene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Benzo(k)fluoranthene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Benzyl butyl phthalate	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
bis(2-chloroethoxy) methane	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
bis(2-chloroethyl) ether	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
bis(2-chloroisopropyl) ether	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
4-Bromophenylphenyl ether	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Di-n-butyl phthalate	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
4-Chloro-3-methylphenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
4-Chloroaniline	ND	ug/L	14		1	7.1	09/06/11	09/07/11 12:11	1014
2-Chloronaphthalene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2-Chlorophenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
4-Chlorophenyl phenyl ether	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Chrysene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Dibenz(a,h)anthracene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Dibenzofuran	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
3,3-Dichlorobenzidine	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2,4-Dichlorophenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Diethyl phthalate	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Dimethyl phthalate	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2,4-Dimethylphenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: TGW-05-090111 **Date/Time Sampled: 09/01/2011 09:10** **PSS Sample ID: 11090215-005**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	14		1	7.1	09/06/11	09/07/11 12:11	1014
2,4-Dinitrotoluene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2,6-Dinitrotoluene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Fluoranthene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Fluorene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Hexachlorobenzene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Hexachlorobutadiene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Hexachlorocyclopentadiene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Hexachloroethane	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Isophorone	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2-Methylnaphthalene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2-Methylphenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
3&4-Methylphenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
4-Nitroaniline	ND	ug/L	14		1	7.1	09/06/11	09/07/11 12:11	1014
3-Nitroaniline	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2-Nitroaniline	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Nitrobenzene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2-Nitrophenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
4-Nitrophenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
N-Nitrosodimethylamine	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
N-Nitrosodi-n-propylamine	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
N-Nitrosodiphenylamine	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Di-n-octyl phthalate	ND	ug/L	14		1	7.1	09/06/11	09/07/11 12:11	1014
Pentachlorophenol	ND	ug/L	14		1	7.1	09/06/11	09/07/11 12:11	1014
Phenanthrene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Phenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
Pyrene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-05-090111 **Date/Time Sampled: 09/01/2011 09:10** **PSS Sample ID: 11090215-005**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014
2,4,5-Trichlorophenol	ND	ug/L	7		1	3.6	09/06/11	09/07/11 12:11	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: TGW-05-090111 (Diss. Met.) **Date/Time Sampled: 09/01/2011 09:10** **PSS Sample ID: 11090215-006**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Barium	23	ug/L	1.0		1	0.5	09/12/11	09/13/11 12:50	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Chromium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Cobalt	13	ug/L	1.0		1	0.5	09/12/11	09/13/11 12:50	1034
Copper	0.7	ug/L	1.0	J	1	0.5	09/12/11	09/12/11 15:07	1034
Lead	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 15:07	1034
Nickel	11	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:07	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:07	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:07	1034
Zinc	37	ug/L	10		1	10	09/12/11	09/12/11 15:07	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-07-090111 **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-007**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Arsenic	54	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Barium	5,700	ug/L	100		100	50	09/14/11	09/14/11 16:20	1034
Beryllium	43	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Hardness (Ca & Mg)	480	mg/L	66		100	70	09/14/11	09/14/11 16:26	1034
Cadmium	7.3	ug/L	1.0		1	0.5	09/14/11	09/15/11 18:02	1034
Chromium	330	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Cobalt	820	ug/L	100		100	50	09/14/11	09/14/11 16:20	1034
Copper	480	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Lead	540	ug/L	100		100	50	09/14/11	09/14/11 16:20	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 16:26	1034
Nickel	440	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Selenium	6.9	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Thallium	1.0	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:26	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 16:26	1034
Vanadium	2,200	ug/L	500		100	250	09/14/11	09/14/11 16:20	1034
Zinc	1,600	ug/L	1,000		100	1,000	09/14/11	09/14/11 16:20	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-07-090111 **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-007**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Endrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 01:23	1029
Toxaphene	ND	ug/L	2		1	1	09/07/11	09/09/11 01:23	1029
Chlordane	ND	ug/L	2		1	1	09/07/11	09/09/11 01:23	1029

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-07-090111 **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-007**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:58	1029
PCB-1221	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:58	1029
PCB-1232	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:58	1029
PCB-1242	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:58	1029
PCB-1248	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:58	1029
PCB-1254	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:58	1029
PCB-1260	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 12:58	1029

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-07-090111 **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-007**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Chloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Bromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Chloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Acetone	17	ug/L	5		1	5	09/09/11	09/10/11 11:53	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/09/11	09/10/11 11:53	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/09/11	09/10/11 11:53	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Chloroform	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Benzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Acrylonitrile	ND	ug/L	10		1	5	09/09/11	09/10/11 11:53	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/09/11	09/10/11 11:53	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/09/11	09/10/11 11:53	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: TGW-07-090111 **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-007**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Toluene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/09/11	09/10/11 11:53	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Acrolein	ND	ug/L	20		1	10	09/09/11	09/10/11 11:53	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Bromoform	ND	ug/L	5		1	2.5	09/09/11	09/10/11 11:53	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/09/11	09/10/11 11:53	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/09/11	09/10/11 11:53	1011
Styrene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
o-Xylene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/09/11	09/10/11 11:53	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Naphthalene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 11:53	1011
Iodomethane	ND	ug/L	20		1	10	09/09/11	09/10/11 11:53	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-07-090111 **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-007**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Acenaphthylene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Acetophenone	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Benzo(a)anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Benzo(a)pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Benzo(b)fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Benzo(g,h,i)perylene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Benzo(k)fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Benzyl butyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
bis(2-chloroethoxy) methane	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
bis(2-chloroethyl) ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
bis(2-chloroisopropyl) ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
4-Bromophenylphenyl ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Di-n-butyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
4-Chloro-3-methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
4-Chloroaniline	ND	ug/L	11		1	5.6	09/06/11	09/07/11 12:39	1014
2-Chloronaphthalene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2-Chlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
4-Chlorophenyl phenyl ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Chrysene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Dibenz(a,h)anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Dibenzofuran	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
3,3-Dichlorobenzidine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2,4-Dichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Diethyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Dimethyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2,4-Dimethylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-07-090111 **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-007**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	11		1	5.6	09/06/11	09/07/11 12:39	1014
2,4-Dinitrotoluene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2,6-Dinitrotoluene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Fluorene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Hexachlorobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Hexachlorobutadiene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Hexachlorocyclopentadiene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Hexachloroethane	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Isophorone	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2-Methylnaphthalene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2-Methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
3&4-Methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
4-Nitroaniline	ND	ug/L	11		1	5.6	09/06/11	09/07/11 12:39	1014
3-Nitroaniline	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2-Nitroaniline	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Nitrobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2-Nitrophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
4-Nitrophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
N-Nitrosodimethylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
N-Nitrosodi-n-propylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
N-Nitrosodiphenylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Di-n-octyl phthalate	ND	ug/L	11		1	5.6	09/06/11	09/07/11 12:39	1014
Pentachlorophenol	ND	ug/L	11		1	5.6	09/06/11	09/07/11 12:39	1014
Phenanthrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Phenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
Pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-07-090111 **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-007**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014
2,4,5-Trichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 12:39	1014

Sample ID: TGW-07-090111 (Diss. Met.) **Date/Time Sampled: 09/01/2011 14:00** **PSS Sample ID: 11090215-008**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Arsenic	1.2	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Barium	72	ug/L	1.0		1	0.5	09/12/11	09/13/11 12:56	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Chromium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Cobalt	21	ug/L	1.0		1	0.5	09/12/11	09/13/11 12:56	1034
Copper	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Lead	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 15:13	1034
Nickel	6.2	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:13	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:13	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:13	1034
Zinc	15	ug/L	10		1	10	09/12/11	09/12/11 15:13	1034

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-08-090111 **Date/Time Sampled: 09/01/2011 14:04** **PSS Sample ID: 11090215-009**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Arsenic	7.2	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Barium	1,000	ug/L	10		10	5	09/14/11	09/19/11 18:37	1034
Beryllium	4.1	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Hardness (Ca & Mg)	140	mg/L	6.6		10	7	09/14/11	09/14/11 16:38	1034
Cadmium	4.8	ug/L	1.0		1	0.5	09/14/11	09/15/11 18:14	1034
Chromium	73	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Cobalt	65	ug/L	1.0		1	0.5	09/14/11	09/15/11 18:14	1034
Copper	110	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Lead	100	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 16:38	1034
Nickel	40	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Selenium	0.8	ug/L	1.0	J	1	0.5	09/14/11	09/14/11 16:38	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:38	1034
Tin	3.0	ug/L	5.0	J	1	2.5	09/14/11	09/14/11 16:38	1034
Vanadium	96	ug/L	5.0		1	2.5	09/14/11	09/14/11 16:38	1034
Zinc	260	ug/L	10		1	10	09/14/11	09/14/11 16:38	1034

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-08-090111 **Date/Time Sampled: 09/01/2011 14:04** **PSS Sample ID: 11090215-009**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Chloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Bromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Chloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Acetone	5	ug/L	5		1	5	09/09/11	09/10/11 12:22	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/09/11	09/10/11 12:22	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/09/11	09/10/11 12:22	1011
cis-1,2-Dichloroethene	0.7	ug/L	1	J	1	0.5	09/09/11	09/10/11 12:22	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Chloroform	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Benzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Acrylonitrile	ND	ug/L	10		1	5	09/09/11	09/10/11 12:22	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/09/11	09/10/11 12:22	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/09/11	09/10/11 12:22	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-08-090111 **Date/Time Sampled: 09/01/2011 14:04** **PSS Sample ID: 11090215-009**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Toluene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/09/11	09/10/11 12:22	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Acrolein	ND	ug/L	20		1	10	09/09/11	09/10/11 12:22	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Bromoform	ND	ug/L	5		1	2.5	09/09/11	09/10/11 12:22	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/09/11	09/10/11 12:22	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/09/11	09/10/11 12:22	1011
Styrene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
o-Xylene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/09/11	09/10/11 12:22	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Naphthalene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:22	1011
Iodomethane	ND	ug/L	20		1	10	09/09/11	09/10/11 12:22	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-08-090111 **Date/Time Sampled: 09/01/2011 14:04** **PSS Sample ID: 11090215-009**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Acenaphthylene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Acetophenone	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Benzo(a)anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Benzo(a)pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Benzo(b)fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Benzo(g,h,i)perylene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Benzo(k)fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Benzyl butyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
bis(2-chloroethoxy) methane	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
bis(2-chloroethyl) ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
bis(2-chloroisopropyl) ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
4-Bromophenylphenyl ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Di-n-butyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
4-Chloro-3-methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
4-Chloroaniline	ND	ug/L	11		1	5.6	09/06/11	09/07/11 13:06	1014
2-Chloronaphthalene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2-Chlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
4-Chlorophenyl phenyl ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Chrysene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Dibenz(a,h)anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Dibenzofuran	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
3,3-Dichlorobenzidine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2,4-Dichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Diethyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Dimethyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2,4-Dimethylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-08-090111 **Date/Time Sampled: 09/01/2011 14:04** **PSS Sample ID: 11090215-009**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	11		1	5.6	09/06/11	09/07/11 13:06	1014
2,4-Dinitrotoluene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2,6-Dinitrotoluene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Fluorene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Hexachlorobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Hexachlorobutadiene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Hexachlorocyclopentadiene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Hexachloroethane	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Isophorone	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2-Methylnaphthalene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2-Methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
3&4-Methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
4-Nitroaniline	ND	ug/L	11		1	5.6	09/06/11	09/07/11 13:06	1014
3-Nitroaniline	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2-Nitroaniline	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Nitrobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2-Nitrophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
4-Nitrophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
N-Nitrosodimethylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
N-Nitrosodi-n-propylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
N-Nitrosodiphenylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Di-n-octyl phthalate	ND	ug/L	11		1	5.6	09/06/11	09/07/11 13:06	1014
Pentachlorophenol	ND	ug/L	11		1	5.6	09/06/11	09/07/11 13:06	1014
Phenanthrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Phenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
Pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-08-090111 **Date/Time Sampled: 09/01/2011 14:04** **PSS Sample ID: 11090215-009**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014
2,4,5-Trichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 13:06	1014

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-06-090111 **Date/Time Sampled: 09/01/2011 12:50** **PSS Sample ID: 11090215-010**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Chloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Vinyl Chloride	4	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Bromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Chloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Acetone	8	ug/L	5		1	5	09/09/11	09/10/11 12:51	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/09/11	09/10/11 12:51	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,1-Dichloroethane	12	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/09/11	09/10/11 12:51	1011
cis-1,2-Dichloroethene	19	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Chloroform	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,2-Dichloroethane	1	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Benzene	2	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,2-Dichloropropane	4	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Acrylonitrile	ND	ug/L	10		1	5	09/09/11	09/10/11 12:51	1011
Trichloroethene	3	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/09/11	09/10/11 12:51	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/09/11	09/10/11 12:51	1011

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: TGW-06-090111 **Date/Time Sampled: 09/01/2011 12:50** **PSS Sample ID: 11090215-010**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Toluene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/09/11	09/10/11 12:51	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Acrolein	ND	ug/L	20		1	10	09/09/11	09/10/11 12:51	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Bromoform	ND	ug/L	5		1	2.5	09/09/11	09/10/11 12:51	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/09/11	09/10/11 12:51	1011
Tetrachloroethene	1	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/09/11	09/10/11 12:51	1011
Styrene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
o-Xylene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/09/11	09/10/11 12:51	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Naphthalene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 12:51	1011
Iodomethane	ND	ug/L	20		1	10	09/09/11	09/10/11 12:51	1011
Ethyl ether (TIC)	5	ug/L	1		1	1	09/09/11	09/10/11 12:51	1011
Methane, dichlorofluoro- (TIC)	8	ug/L	1		1	1	09/09/11	09/10/11 12:51	1011

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: TGW-06-090111 **Date/Time Sampled: 09/01/2011 12:50** **PSS Sample ID: 11090215-010**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Acetophenone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 13:34	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Chrysene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-06-090111 **Date/Time Sampled: 09/01/2011 12:50** **PSS Sample ID: 11090215-010**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 13:34	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Fluorene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Isophorone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 13:34	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/06/11	09/07/11 13:34	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 13:34	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
Pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-06-090111 Date/Time Sampled: 09/01/2011 12:50 PSS Sample ID: 11090215-010
Matrix: GROUND WATER Date/Time Received: 09/02/2011 15:45

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 13:34	1014

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: DUP-01-090211 **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-011**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity Analytical Method: EPA 180.1

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	9.4	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034

Chloride, Sulfate, Nitrate Analytical Method: EPA 300.0 Preparation Method: E300.OP

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	7.4	mg/L	0.2		1	0.1	09/02/11	09/02/11 17:00	1035
Nitrate (as N)	2.8	mg/L	0.1		1	0.05	09/02/11	09/02/11 17:00	1035
Sulfate	ND	mg/L	0.2		1	0.1	09/02/11	09/02/11 17:00	1035

Nitrogen Ammonia Analytical Method: EPA 350.1

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	0.69	mg/L	0.20		0.2	09/08/11	09/08/11 12:10	4005

Chemical Oxygen Demand Analytical Method: EPA 410.4

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	ND	mg/L	20.0		20	09/06/11	09/06/11 13:25	4005

Alkalinity Analytical Method: SM 2320B

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	35.0	mg/L	5.0		5	09/06/11	09/06/11 14:21	4005

Specific conductance Analytical Method: SM 2510B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	120	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044

Total Dissolved Solids Analytical Method: SM 2540C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	110	mg/L	5		1	5	09/07/11	09/07/11 15:40	1034

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No: 11090215
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Project Name: Gude Landfill
 Project Location: Rockville MD

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Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

pH, Electrometric Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	6.0	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Barium	15	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Hardness (Ca & Mg)	48	mg/L	6.6		10	7	09/14/11	09/14/11 16:43	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Chromium	2.3	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Cobalt	ND	ug/L	1.0		1	0.5	09/14/11	09/15/11 18:20	1034
Copper	0.8	ug/L	1.0	J	1	0.5	09/14/11	09/14/11 16:43	1034
Lead	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 16:43	1034
Nickel	1.9	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Selenium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:43	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 16:43	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 16:43	1034
Zinc	13	ug/L	10		1	10	09/14/11	09/14/11 16:43	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: DUP-01-090211 **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-011**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Endrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:19	1029
Toxaphene	ND	ug/L	2		1	1	09/07/11	09/08/11 22:19	1029
Chlordane	ND	ug/L	2		1	1	09/07/11	09/08/11 22:19	1029

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September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: DUP-01-090211 **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-011**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 23:29	1029
PCB-1221	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 23:29	1029
PCB-1232	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 23:29	1029
PCB-1242	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 23:29	1029
PCB-1248	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 23:29	1029
PCB-1254	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 23:29	1029
PCB-1260	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 23:29	1029

Chlorinated Herbicides

Analytical Method: SW-846 8151 A

Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	2		1	1	09/08/11	09/09/11 20:43	1029
2,4,5-TP (Silvex)	ND	ug/L	0.2		1	0.1	09/08/11	09/09/11 20:43	1029
2,4,5-T	ND	ug/L	0.2		1	0.1	09/08/11	09/09/11 20:43	1029
Dinoseb	ND	ug/L	1		1	0.5	09/08/11	09/09/11 20:43	1029

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: DUP-01-090211 **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-011**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Chloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Bromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Chloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Acetone	ND	ug/L	5		1	5	09/09/11	09/10/11 13:20	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/09/11	09/10/11 13:20	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/09/11	09/10/11 13:20	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Chloroform	2	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Benzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Acrylonitrile	ND	ug/L	10		1	5	09/09/11	09/10/11 13:20	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/09/11	09/10/11 13:20	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/09/11	09/10/11 13:20	1011

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: DUP-01-090211 **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-011**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Toluene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/09/11	09/10/11 13:20	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Acrolein	ND	ug/L	20		1	10	09/09/11	09/10/11 13:20	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Bromoform	ND	ug/L	5		1	2.5	09/09/11	09/10/11 13:20	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/09/11	09/10/11 13:20	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/09/11	09/10/11 13:20	1011
Styrene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
o-Xylene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/09/11	09/10/11 13:20	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Naphthalene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:20	1011
Iodomethane	ND	ug/L	20		1	10	09/09/11	09/10/11 13:20	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: DUP-01-090211 **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-011**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Acetophenone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 14:02	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Chrysene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: DUP-01-090211 **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-011**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 14:02	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Fluorene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Isophorone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 14:02	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/06/11	09/07/11 14:02	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 14:02	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
Pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: DUP-01-090211 **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-011**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:02	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: DUP-01-090211 (Diss. Met.) **Date/Time Sampled: 09/02/2011 08:00** **PSS Sample ID: 11090215-012**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Barium	11	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:01	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Chromium	1.4	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Cobalt	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Copper	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Lead	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 15:18	1034
Nickel	1.2	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:18	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:18	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:18	1034
Zinc	13	ug/L	10		1	10	09/12/11	09/12/11 15:18	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity Analytical Method: EPA 180.1

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	360	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034

Chloride, Sulfate, Nitrate Analytical Method: EPA 300.0 Preparation Method: E300.OP

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	300	mg/L	0.2		1	0.1	09/02/11	09/02/11 17:15	1035
Nitrate (as N)	2.6	mg/L	0.1		1	0.05	09/02/11	09/02/11 17:15	1035
Sulfate	11	mg/L	0.2		1	0.1	09/02/11	09/02/11 17:15	1035

Nitrogen Ammonia Analytical Method: EPA 350.1

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	0.26	mg/L	0.20		0.2	09/08/11	09/08/11 12:10	4005

Chemical Oxygen Demand Analytical Method: EPA 410.4

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	56.0	mg/L	20.0		20	09/06/11	09/06/11 13:25	4005

Alkalinity Analytical Method: SM 2320B

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	16.0	mg/L	5.0		5	09/06/11	09/06/11 14:21	4005

Specific conductance Analytical Method: SM 2510B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	980	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044

Total Dissolved Solids Analytical Method: SM 2540C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	720	mg/L	5		1	5	09/07/11	09/07/11 15:40	1034

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Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

pH, Electrometric Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	5.4	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Arsenic	0.7	ug/L	1.0	J	1	0.5	09/14/11	09/14/11 16:49	1034
Barium	620	ug/L	100		100	50	09/14/11	09/19/11 18:48	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Hardness (Ca & Mg)	490	mg/L	66		100	70	09/14/11	09/14/11 16:49	1034
Cadmium	0.7	ug/L	1.0		1	0.5	09/14/11	09/15/11 18:25	1034
Chromium	27	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Cobalt	15	ug/L	1.0		1	0.5	09/14/11	09/15/11 18:25	1034
Copper	46	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Lead	2.3	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 16:49	1034
Nickel	73	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Selenium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 16:49	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 16:49	1034
Vanadium	35	ug/L	5.0		1	2.5	09/14/11	09/14/11 16:49	1034
Zinc	83	ug/L	10		1	10	09/14/11	09/14/11 16:49	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Endrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:52	1029
Toxaphene	ND	ug/L	2		1	1	09/07/11	09/09/11 00:52	1029
Chlordane	ND	ug/L	2		1	1	09/07/11	09/09/11 00:52	1029

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Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:28	1029
PCB-1221	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:28	1029
PCB-1232	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:28	1029
PCB-1242	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:28	1029
PCB-1248	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:28	1029
PCB-1254	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:28	1029
PCB-1260	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:28	1029

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	2		1	1	09/08/11	09/09/11 18:31	1029
2,4,5-TP (Silvex)	ND	ug/L	0.2		1	0.1	09/08/11	09/09/11 18:31	1029
2,4,5-T	ND	ug/L	0.2		1	0.1	09/08/11	09/09/11 18:31	1029
Dinoseb	ND	ug/L	1		1	0.5	09/08/11	09/09/11 18:31	1029

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Chloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Bromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Chloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Acetone	ND	ug/L	5		1	5	09/09/11	09/10/11 13:49	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/09/11	09/10/11 13:49	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/09/11	09/10/11 13:49	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Chloroform	0.9	ug/L	1	J	1	0.5	09/09/11	09/10/11 13:49	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Benzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Acrylonitrile	ND	ug/L	10		1	5	09/09/11	09/10/11 13:49	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/09/11	09/10/11 13:49	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/09/11	09/10/11 13:49	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Toluene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/09/11	09/10/11 13:49	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Acrolein	ND	ug/L	20		1	10	09/09/11	09/10/11 13:49	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Bromoform	ND	ug/L	5		1	2.5	09/09/11	09/10/11 13:49	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/09/11	09/10/11 13:49	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/09/11	09/10/11 13:49	1011
Styrene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
o-Xylene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/09/11	09/10/11 13:49	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Naphthalene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/09/11	09/10/11 13:49	1011
Iodomethane	ND	ug/L	20		1	10	09/09/11	09/10/11 13:49	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Acetophenone	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Anthracene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/06/11	09/08/11 09:36	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Chrysene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/06/11	09/08/11 09:36	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Fluorene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Isophorone	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/06/11	09/08/11 09:36	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/06/11	09/08/11 09:36	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/06/11	09/08/11 09:36	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Phenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Pyrene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14A-090211 **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-013**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014
Docosa-2,6,10,14,18-pentaen-22-al, (TIC)	6	ug/L	5		1	2.5	09/06/11	09/08/11 09:36	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: MW-14A-090211 (Diss. Met.) **Date/Time Sampled: 09/02/2011 08:15** **PSS Sample ID: 11090215-014**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:24	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:24	1034
Barium	420	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:07	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:24	1034
Cadmium	0.6	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:07	1034
Chromium	0.7	ug/L	1.0	J	1	0.5	09/12/11	09/12/11 15:24	1034
Cobalt	2.8	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:07	1034
Copper	1.8	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:07	1034
Lead	0.9	ug/L	1.0	J	1	0.5	09/12/11	09/12/11 15:24	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 15:24	1034
Nickel	40	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:24	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:24	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:24	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:24	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:24	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:24	1034
Zinc	71	ug/L	10		1	10	09/12/11	09/12/11 15:24	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14B-090211 **Date/Time Sampled: 09/02/2011 09:40** **PSS Sample ID: 11090215-015**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity Analytical Method: EPA 180.1

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	2.7	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034

Chloride, Sulfate, Nitrate Analytical Method: EPA 300.0 Preparation Method: E300.OP

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	7.5	mg/L	0.2		1	0.1	09/02/11	09/02/11 17:30	1035
Nitrate (as N)	2.7	mg/L	0.1		1	0.05	09/02/11	09/02/11 17:30	1035
Sulfate	ND	mg/L	0.2		1	0.1	09/02/11	09/02/11 17:30	1035

Nitrogen Ammonia Analytical Method: EPA 350.1

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	0.27	mg/L	0.20		0.2	09/08/11	09/08/11 12:10	4005

Chemical Oxygen Demand Analytical Method: EPA 410.4

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	ND	mg/L	20.0		20	09/06/11	09/06/11 13:25	4005

Alkalinity Analytical Method: SM 2320B

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	35.0	mg/L	5.0		5	09/06/11	09/06/11 14:21	4005

Specific conductance Analytical Method: SM 2510B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	120	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044

Total Dissolved Solids Analytical Method: SM 2540C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	140	mg/L	5		1	5	09/07/11	09/07/11 15:40	1034

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14B-090211 **Date/Time Sampled: 09/02/2011 09:40** **PSS Sample ID: 11090215-015**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

pH, Electrometric

Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	5.8	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Barium	13	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Hardness (Ca & Mg)	38	mg/L	6.6		10	7	09/14/11	09/14/11 17:12	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Chromium	1.6	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Cobalt	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Copper	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Lead	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 17:12	1034
Nickel	1.4	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Selenium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:12	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:12	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:12	1034
Zinc	ND	ug/L	10		1	10	09/14/11	09/14/11 17:12	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14B-090211 **Date/Time Sampled: 09/02/2011 09:40** **PSS Sample ID: 11090215-015**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Endrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 22:50	1029
Toxaphene	ND	ug/L	2		1	1.1	09/07/11	09/08/11 22:50	1029
Chlordane	ND	ug/L	2		1	1.1	09/07/11	09/08/11 22:50	1029

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Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:58	1029
PCB-1221	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:58	1029
PCB-1232	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:58	1029
PCB-1242	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:58	1029
PCB-1248	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:58	1029
PCB-1254	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:58	1029
PCB-1260	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:58	1029

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	2		1	1.1	09/08/11	09/09/11 21:17	1029
2,4,5-TP (Silvex)	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 21:17	1029
2,4,5-T	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 21:17	1029
Dinoseb	ND	ug/L	1		1	0.53	09/08/11	09/09/11 21:17	1029

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Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Chloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Bromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Chloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Acetone	ND	ug/L	5		1	5	09/12/11	09/12/11 16:50	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/12/11	09/12/11 16:50	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/12/11	09/12/11 16:50	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Chloroform	2	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Benzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Acrylonitrile	ND	ug/L	10		1	5	09/12/11	09/12/11 16:50	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/12/11	09/12/11 16:50	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/12/11	09/12/11 16:50	1011

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14B-090211 **Date/Time Sampled: 09/02/2011 09:40** **PSS Sample ID: 11090215-015**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Toluene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/12/11	09/12/11 16:50	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Acrolein	ND	ug/L	20		1	10	09/12/11	09/12/11 16:50	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Bromoform	ND	ug/L	5		1	2.5	09/12/11	09/12/11 16:50	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/12/11	09/12/11 16:50	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/12/11	09/12/11 16:50	1011
Styrene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
o-Xylene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/12/11	09/12/11 16:50	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Naphthalene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 16:50	1011
Iodomethane	ND	ug/L	20		1	10	09/12/11	09/12/11 16:50	1011

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No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: MW-14B-090211 **Date/Time Sampled: 09/02/2011 09:40** **PSS Sample ID: 11090215-015**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Acetophenone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 14:57	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Chrysene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014

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Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14B-090211 **Date/Time Sampled: 09/02/2011 09:40** **PSS Sample ID: 11090215-015**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 14:57	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Fluorene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Isophorone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 14:57	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/06/11	09/07/11 14:57	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 14:57	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-14B-090211 **Date/Time Sampled: 09/02/2011 09:40** **PSS Sample ID: 11090215-015**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014
Docosa-2,6,10,14,18-pentaen-22-al, (TIC)	4	ug/L	5		1	2.5	09/06/11	09/07/11 14:57	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: MW-14B-090211 (Diss. Met.) **Date/Time Sampled: 09/02/2011 09:40** **PSS Sample ID: 11090215-016**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Barium	12	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:13	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Chromium	1.2	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Cobalt	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Copper	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Lead	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 15:30	1034
Nickel	1.1	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:30	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:30	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:30	1034
Zinc	12	ug/L	10		1	10	09/12/11	09/12/11 15:30	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity Analytical Method: EPA 180.1

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	440	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034

Chloride, Sulfate, Nitrate Analytical Method: EPA 300.0 Preparation Method: E300.OP

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	11	mg/L	0.2		1	0.1	09/02/11	09/02/11 17:46	1035
Nitrate (as N)	3.1	mg/L	0.1		1	0.05	09/02/11	09/02/11 17:46	1035
Sulfate	0.3	mg/L	0.2		1	0.1	09/02/11	09/02/11 17:46	1035

Nitrogen Ammonia Analytical Method: EPA 350.1

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	0.39	mg/L	0.20		0.2	09/08/11	09/08/11 12:10	4005

Chemical Oxygen Demand Analytical Method: EPA 410.4

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	51.0	mg/L	20.0		20	09/06/11	09/06/11 13:25	4005

Alkalinity Analytical Method: SM 2320B

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	30.0	mg/L	5.0		5	09/06/11	09/06/11 14:21	4005

Specific conductance Analytical Method: SM 2510B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	120	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044

Total Dissolved Solids Analytical Method: SM 2540C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	100	mg/L	5		1	5	09/07/11	09/07/11 15:40	1034

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Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

pH, Electrometric

Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	5.7	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Arsenic	1.8	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Barium	160	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Hardness (Ca & Mg)	63	mg/L	6.6		10	7	09/14/11	09/14/11 17:18	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Chromium	12	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Cobalt	13	ug/L	1.0		1	0.5	09/14/11	09/15/11 18:37	1034
Copper	56	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Lead	5.2	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 17:18	1034
Nickel	15	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Selenium	ND	ug/L	1.0		1	0.5	09/14/11	09/16/11 18:53	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:18	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:18	1034
Vanadium	12	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:18	1034
Zinc	50	ug/L	10		1	10	09/14/11	09/14/11 17:18	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Endrin	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/07/11	09/09/11 00:21	1029
Toxaphene	ND	ug/L	2		1	1	09/07/11	09/09/11 00:21	1029
Chlordane	ND	ug/L	2		1	1	09/07/11	09/09/11 00:21	1029

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:57	1029
PCB-1221	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:57	1029
PCB-1232	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:57	1029
PCB-1242	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:57	1029
PCB-1248	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:57	1029
PCB-1254	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:57	1029
PCB-1260	ND	ug/L	1.0		1	0.5	09/07/11	09/09/11 13:57	1029

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	2		1	1.1	09/08/11	09/09/11 19:04	1029
2,4,5-TP (Silvex)	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 19:04	1029
2,4,5-T	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 19:04	1029
Dinoseb	ND	ug/L	1		1	0.53	09/08/11	09/09/11 19:04	1029

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September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Chloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Bromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Chloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Acetone	ND	ug/L	5		1	5	09/12/11	09/12/11 17:20	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/12/11	09/12/11 17:20	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/12/11	09/12/11 17:20	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Chloroform	2	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Benzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Acrylonitrile	ND	ug/L	10		1	5	09/12/11	09/12/11 17:20	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/12/11	09/12/11 17:20	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/12/11	09/12/11 17:20	1011

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Toluene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/12/11	09/12/11 17:20	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Acrolein	ND	ug/L	20		1	10	09/12/11	09/12/11 17:20	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Bromoform	ND	ug/L	5		1	2.5	09/12/11	09/12/11 17:20	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/12/11	09/12/11 17:20	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/12/11	09/12/11 17:20	1011
Styrene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
o-Xylene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/12/11	09/12/11 17:20	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Naphthalene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:20	1011
Iodomethane	ND	ug/L	20		1	10	09/12/11	09/12/11 17:20	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Acetophenone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 15:24	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Chrysene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 15:24	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Fluorene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Isophorone	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/06/11	09/07/11 15:24	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/06/11	09/07/11 15:24	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/06/11	09/07/11 15:24	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Phenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
Pyrene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: MW-15-090211 **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-017**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/06/11	09/07/11 15:24	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: MW-15-090211 (Diss. Met.) **Date/Time Sampled: 09/02/2011 10:45** **PSS Sample ID: 11090215-018**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Barium	27	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:18	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Chromium	0.7	ug/L	1.0	J	1	0.5	09/12/11	09/12/11 15:36	1034
Cobalt	1.7	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:18	1034
Copper	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Lead	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 15:36	1034
Nickel	2.0	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:36	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:36	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:36	1034
Zinc	16	ug/L	10		1	10	09/12/11	09/12/11 15:36	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity		Analytical Method: EPA 180.1							
	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	2,500	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034
Chloride, Sulfate, Nitrate		Analytical Method: EPA 300.0				Preparation Method: E300.OP			
	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	64	mg/L	0.2		1	0.1	09/02/11	09/02/11 18:01	1035
Nitrate (as N)	0.2	mg/L	0.1		1	0.05	09/02/11	09/02/11 18:01	1035
Sulfate	23	mg/L	0.2		1	0.1	09/02/11	09/02/11 18:01	1035
Nitrogen Ammonia		Analytical Method: EPA 350.1							
	Result	Units	RL	Flag		LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	0.31	mg/L	0.20			0.2	09/08/11	09/08/11 12:10	4005
Chemical Oxygen Demand		Analytical Method: EPA 410.4							
	Result	Units	RL	Flag		LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	55.0	mg/L	20.0			20	09/06/11	09/06/11 13:25	4005
Alkalinity		Analytical Method: SM 2320B							
	Result	Units	RL	Flag		LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	49.0	mg/L	5.0			5	09/06/11	09/06/11 14:21	4005
Specific conductance		Analytical Method: SM 2510B							
	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	360	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044
Total Dissolved Solids		Analytical Method: SM 2540C							
	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	300	mg/L	5		1	5	09/07/11	09/07/11 15:40	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

pH, Electrometric

Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	5.7	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Arsenic	3.1	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Barium	72	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Hardness (Ca & Mg)	55	mg/L	6.6		10	7	09/14/11	09/14/11 17:24	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Chromium	9.5	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Cobalt	17	ug/L	1.0		1	0.5	09/14/11	09/16/11 18:59	1034
Copper	14	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Lead	7.9	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 17:24	1034
Nickel	14	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Selenium	ND	ug/L	1.0		1	0.5	09/14/11	09/16/11 18:59	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:24	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:24	1034
Vanadium	17	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:24	1034
Zinc	39	ug/L	10		1	10	09/14/11	09/14/11 17:24	1034

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Endrin	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/07/11	09/08/11 23:20	1029
Toxaphene	ND	ug/L	2		1	1.1	09/07/11	09/08/11 23:20	1029
Chlordane	ND	ug/L	2		1	1.1	09/07/11	09/08/11 23:20	1029

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:27	1029
PCB-1221	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:27	1029
PCB-1232	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:27	1029
PCB-1242	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:27	1029
PCB-1248	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:27	1029
PCB-1254	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:27	1029
PCB-1260	ND	ug/L	1.1		1	0.53	09/07/11	09/09/11 22:27	1029

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	2		1	1.1	09/08/11	09/09/11 21:50	1029
2,4,5-TP (Silvex)	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 21:50	1029
2,4,5-T	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 21:50	1029
Dinoseb	ND	ug/L	1		1	0.56	09/08/11	09/09/11 21:50	1029

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Chloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Bromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Chloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Acetone	ND	ug/L	5		1	5	09/12/11	09/12/11 17:49	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/12/11	09/12/11 17:49	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/12/11	09/12/11 17:49	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Chloroform	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Benzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Acrylonitrile	ND	ug/L	10		1	5	09/12/11	09/12/11 17:49	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/12/11	09/12/11 17:49	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/12/11	09/12/11 17:49	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Toluene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/12/11	09/12/11 17:49	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Acrolein	ND	ug/L	20		1	10	09/12/11	09/12/11 17:49	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Bromoform	ND	ug/L	5		1	2.5	09/12/11	09/12/11 17:49	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/12/11	09/12/11 17:49	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/12/11	09/12/11 17:49	1011
Styrene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
o-Xylene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/12/11	09/12/11 17:49	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Naphthalene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 17:49	1011
Iodomethane	ND	ug/L	20		1	10	09/12/11	09/12/11 17:49	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Acenaphthylene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Acetophenone	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Benzo(a)anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Benzo(a)pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Benzo(b)fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Benzo(g,h,i)perylene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Benzo(k)fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Benzyl butyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
bis(2-chloroethoxy) methane	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
bis(2-chloroethyl) ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
bis(2-chloroisopropyl) ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
4-Bromophenylphenyl ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Di-n-butyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
4-Chloro-3-methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
4-Chloroaniline	ND	ug/L	11		1	5.6	09/06/11	09/07/11 16:01	1014
2-Chloronaphthalene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2-Chlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
4-Chlorophenyl phenyl ether	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Chrysene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Dibenz(a,h)anthracene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Dibenzofuran	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
3,3-Dichlorobenzidine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2,4-Dichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Diethyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Dimethyl phthalate	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2,4-Dimethylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	11		1	5.6	09/06/11	09/07/11 16:01	1014
2,4-Dinitrotoluene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2,6-Dinitrotoluene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Fluoranthene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Fluorene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Hexachlorobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Hexachlorobutadiene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Hexachlorocyclopentadiene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Hexachloroethane	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Isophorone	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2-Methylnaphthalene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2-Methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
3&4-Methylphenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
4-Nitroaniline	ND	ug/L	11		1	5.6	09/06/11	09/07/11 16:01	1014
3-Nitroaniline	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2-Nitroaniline	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Nitrobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2-Nitrophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
4-Nitrophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
N-Nitrosodimethylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
N-Nitrosodi-n-propylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
N-Nitrosodiphenylamine	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Di-n-octyl phthalate	ND	ug/L	11		1	5.6	09/06/11	09/07/11 16:01	1014
Pentachlorophenol	ND	ug/L	11		1	5.6	09/06/11	09/07/11 16:01	1014
Phenanthrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Phenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Pyrene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-02-090211 **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-019**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
2,4,5-Trichlorophenol	ND	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014
Squalene (TIC)	7	ug/L	6		1	2.8	09/06/11	09/07/11 16:01	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: TGW-02-090211 (Diss. Met.) **Date/Time Sampled: 09/02/2011 08:20** **PSS Sample ID: 11090215-020**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:41	1034
Arsenic	1.7	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:41	1034
Barium	36	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:24	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:41	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:41	1034
Chromium	0.8	ug/L	1.0	J	1	0.5	09/12/11	09/12/11 15:41	1034
Cobalt	9.0	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:24	1034
Copper	0.8	ug/L	1.0	J	1	0.5	09/12/11	09/12/11 15:41	1034
Lead	0.6	ug/L	1.0	J	1	0.5	09/12/11	09/12/11 15:41	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 15:41	1034
Nickel	6.8	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:41	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:41	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:41	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:41	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:41	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:41	1034
Zinc	22	ug/L	10		1	10	09/12/11	09/12/11 15:41	1034

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-01-090211 **Date/Time Sampled: 09/02/2011 10:41** **PSS Sample ID: 11090215-021**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Arsenic	4.9	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Barium	280	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Beryllium	2.8	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Hardness (Ca & Mg)	85	mg/L	6.6		10	7	09/14/11	09/14/11 17:29	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Chromium	60	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Cobalt	47	ug/L	1.0		1	0.5	09/14/11	09/16/11 19:05	1034
Copper	62	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Lead	89	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 17:29	1034
Nickel	26	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Selenium	0.7	ug/L	1.0		1	0.5	09/14/11	09/16/11 19:05	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:29	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:29	1034
Vanadium	100	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:29	1034
Zinc	91	ug/L	10		1	10	09/14/11	09/14/11 17:29	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-01-090211 **Date/Time Sampled: 09/02/2011 10:41** **PSS Sample ID: 11090215-021**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Chloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Bromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Chloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Acetone	13	ug/L	5		1	5	09/12/11	09/12/11 18:18	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/12/11	09/12/11 18:18	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/12/11	09/12/11 18:18	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Chloroform	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Benzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Acrylonitrile	ND	ug/L	10		1	5	09/12/11	09/12/11 18:18	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/12/11	09/12/11 18:18	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/12/11	09/12/11 18:18	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-01-090211 **Date/Time Sampled: 09/02/2011 10:41** **PSS Sample ID: 11090215-021**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Toluene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/12/11	09/12/11 18:18	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Acrolein	ND	ug/L	20		1	10	09/12/11	09/12/11 18:18	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Bromoform	ND	ug/L	5		1	2.5	09/12/11	09/12/11 18:18	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/12/11	09/12/11 18:18	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/12/11	09/12/11 18:18	1011
Styrene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
o-Xylene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/12/11	09/12/11 18:18	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Naphthalene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:18	1011
Iodomethane	ND	ug/L	20		1	10	09/12/11	09/12/11 18:18	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Turbidity Analytical Method: EPA 180.1

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	1,400	NTU	0.2		1	0.1	09/02/11	09/02/11 16:05	1034

Chloride, Sulfate, Nitrate Analytical Method: EPA 300.0 Preparation Method: E300.OP

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	250	mg/L	0.2		1	0.1	09/02/11	09/02/11 18:17	1035
Nitrate (as N)	0.1	mg/L	0.1		1	0.05	09/02/11	09/02/11 18:17	1035
Sulfate	ND	mg/L	0.2		1	0.1	09/02/11	09/02/11 18:17	1035

Nitrogen Ammonia Analytical Method: EPA 350.1

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Nitrogen, Ammonia (as N)	2.65	mg/L	0.20		0.2	09/08/11	09/08/11 12:10	4005

Chemical Oxygen Demand Analytical Method: EPA 410.4

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	76.0	mg/L	20.0		20	09/06/11	09/06/11 13:25	4005

Alkalinity Analytical Method: SM 2320B

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Alkalinity, Total (CaCO3)	230	mg/L	5.0		5	09/06/11	09/06/11 14:21	4005

Specific conductance Analytical Method: SM 2510B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	1,200	us/cm	1		1	1	09/02/11	09/02/11 16:00	1044

Total Dissolved Solids Analytical Method: SM 2540C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Total Dissolved Solids	750	mg/L	5		1	5	09/07/11	09/07/11 15:40	1034

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EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

pH, Electrometric

Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	6.3	S.U.			1		09/02/11	09/02/11 16:00	1044

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Arsenic	2.9	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Barium	230	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Hardness (Ca & Mg)	400	mg/L	66		100	70	09/14/11	09/14/11 17:35	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Chromium	2.9	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Cobalt	5.6	ug/L	1.0		1	0.5	09/14/11	09/16/11 19:11	1034
Copper	1.3	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Lead	0.9	ug/L	1.0	J	1	0.5	09/14/11	09/14/11 17:35	1034
Mercury	ND	ug/L	0.20		1	0.1	09/14/11	09/14/11 17:35	1034
Nickel	1.7	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Selenium	ND	ug/L	1.0		1	0.5	09/14/11	09/16/11 19:11	1034
Silver	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Thallium	ND	ug/L	1.0		1	0.5	09/14/11	09/14/11 17:35	1034
Tin	ND	ug/L	5.0		1	2.5	09/14/11	09/14/11 17:35	1034
Vanadium	4.0	ug/L	5.0	J	1	2.5	09/14/11	09/14/11 17:35	1034
Zinc	10	ug/L	10		1	10	09/14/11	09/14/11 17:35	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
gamma-BHC (Lindane)	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
beta-BHC	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
delta-BHC	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Heptachlor	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Aldrin	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Heptachlor epoxide	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
gamma-Chlordane	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
alpha-Chlordane	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
4,4-DDE	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Endosulfan I	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Dieldrin	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Endrin	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
4,4-DDD	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Endosulfan II	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
4,4-DDT	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Endrin aldehyde	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Methoxychlor	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Endosulfan sulfate	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Endrin ketone	ND	ug/L	0.09		1	0.05	09/07/11	09/08/11 23:51	1029
Toxaphene	ND	ug/L	2		1	1.1	09/07/11	09/08/11 23:51	1029
Chlordane	ND	ug/L	2		1	1.1	09/07/11	09/08/11 23:51	1029

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.1		1	0.57	09/07/11	09/09/11 14:26	1029
PCB-1221	ND	ug/L	1.1		1	0.57	09/07/11	09/09/11 14:26	1029
PCB-1232	ND	ug/L	1.1		1	0.57	09/07/11	09/09/11 14:26	1029
PCB-1242	ND	ug/L	1.1		1	0.57	09/07/11	09/09/11 14:26	1029
PCB-1248	ND	ug/L	1.1		1	0.57	09/07/11	09/09/11 14:26	1029
PCB-1254	ND	ug/L	1.1		1	0.57	09/07/11	09/09/11 14:26	1029
PCB-1260	ND	ug/L	1.1		1	0.57	09/07/11	09/09/11 14:26	1029

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	2		1	1.1	09/08/11	09/09/11 19:37	1029
2,4,5-TP (Silvex)	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 19:37	1029
2,4,5-T	ND	ug/L	0.2		1	0.11	09/08/11	09/09/11 19:37	1029
Dinoseb	ND	ug/L	1		1	0.56	09/08/11	09/09/11 19:37	1029

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Chloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Bromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Chloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Acetone	ND	ug/L	5		1	5	09/12/11	09/12/11 18:48	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/12/11	09/12/11 18:48	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/12/11	09/12/11 18:48	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Chloroform	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Benzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Acrylonitrile	ND	ug/L	10		1	5	09/12/11	09/12/11 18:48	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/12/11	09/12/11 18:48	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/12/11	09/12/11 18:48	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Toluene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/12/11	09/12/11 18:48	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Acrolein	ND	ug/L	20		1	10	09/12/11	09/12/11 18:48	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Bromoform	ND	ug/L	5		1	2.5	09/12/11	09/12/11 18:48	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/12/11	09/12/11 18:48	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/12/11	09/12/11 18:48	1011
Styrene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
o-Xylene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/12/11	09/12/11 18:48	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Naphthalene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 18:48	1011
Iodomethane	ND	ug/L	20		1	10	09/12/11	09/12/11 18:48	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Acenaphthylene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Acetophenone	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Anthracene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
4-Chloroaniline	ND	ug/L	11		1	5.3	09/06/11	09/08/11 09:08	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2-Chlorophenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Chrysene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Dibenzofuran	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Diethyl phthalate	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Dimethyl phthalate	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	11		1	5.3	09/06/11	09/08/11 09:08	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Fluoranthene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Fluorene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Hexachlorobenzene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Hexachloroethane	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Isophorone	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2-Methylphenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
3&4-Methylphenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
4-Nitroaniline	ND	ug/L	11		1	5.3	09/06/11	09/08/11 09:08	1014
3-Nitroaniline	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2-Nitroaniline	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Nitrobenzene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2-Nitrophenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
4-Nitrophenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Di-n-octyl phthalate	ND	ug/L	11		1	5.3	09/06/11	09/08/11 09:08	1014
Pentachlorophenol	ND	ug/L	11		1	5.3	09/06/11	09/08/11 09:08	1014
Phenanthrene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Phenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
Pyrene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014

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CERTIFICATE OF ANALYSIS

No: 11090215
 EA Engineering, Sparks, MD
 September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-10-090211 **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-022**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.6	09/06/11	09/08/11 09:08	1014

Cyanide Analytical Method: SW-846 9014

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.05		1	0.03	09/12/11	09/12/11 00:00	1022

Sample ID: TGW-10-090211 (Diss. Met.) **Date/Time Sampled: 09/02/2011 12:47** **PSS Sample ID: 11090215-023**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Arsenic	3.3	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Barium	190	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:30	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Chromium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Cobalt	3.8	ug/L	1.0		1	0.5	09/12/11	09/13/11 13:30	1034
Copper	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Lead	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Mercury	ND	ug/L	0.20		1	0.1	09/12/11	09/12/11 15:47	1034
Nickel	1.3	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Selenium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Silver	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Thallium	ND	ug/L	1.0		1	0.5	09/12/11	09/12/11 15:47	1034
Tin	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:47	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/12/11	09/12/11 15:47	1034
Zinc	13	ug/L	10		1	10	09/12/11	09/12/11 15:47	1034

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CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill

Project Location: Rockville MD

Sample ID: Trip Blank **Date/Time Sampled: 09/01/2011 00:00** **PSS Sample ID: 11090215-024**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Chloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Bromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Chloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Acetone	ND	ug/L	5		1	5	09/12/11	09/12/11 19:17	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/12/11	09/12/11 19:17	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/12/11	09/12/11 19:17	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Chloroform	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Benzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Acrylonitrile	ND	ug/L	10		1	5	09/12/11	09/12/11 19:17	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/12/11	09/12/11 19:17	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/12/11	09/12/11 19:17	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: Trip Blank **Date/Time Sampled: 09/01/2011 00:00** **PSS Sample ID: 11090215-024**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Toluene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/12/11	09/12/11 19:17	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Acrolein	ND	ug/L	20		1	10	09/12/11	09/12/11 19:17	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Bromoform	ND	ug/L	5		1	2.5	09/12/11	09/12/11 19:17	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/12/11	09/12/11 19:17	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/12/11	09/12/11 19:17	1011
Styrene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
o-Xylene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/12/11	09/12/11 19:17	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Naphthalene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:17	1011
Iodomethane	ND	ug/L	20		1	10	09/12/11	09/12/11 19:17	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-09-090111 **Date/Time Sampled: 09/01/2011 12:48** **PSS Sample ID: 11090215-025**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Chloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Vinyl Chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Bromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Chloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Acetone	7	ug/L	5		1	5	09/12/11	09/12/11 19:47	1011
Trichlorofluoromethane	ND	ug/L	1		1	1	09/12/11	09/12/11 19:47	1011
1,1-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Methylene chloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
trans-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,1-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Vinyl acetate	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	09/12/11	09/12/11 19:47	1011
cis-1,2-Dichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Bromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Chloroform	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
2,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,1,1-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,2-Dichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,1-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Carbon tetrachloride	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Benzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Dibromomethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,2-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Acrylonitrile	ND	ug/L	10		1	5	09/12/11	09/12/11 19:47	1011
Trichloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Carbon Disulfide	ND	ug/L	1		1	1	09/12/11	09/12/11 19:47	1011
Bromodichloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
cis-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5		1	2.5	09/12/11	09/12/11 19:47	1011

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11090215

EA Engineering, Sparks, MD

September 22, 2011

Project Name: Gude Landfill
 Project Location: Rockville MD

Sample ID: TGW-09-090111 **Date/Time Sampled: 09/01/2011 12:48** **PSS Sample ID: 11090215-025**
Matrix: GROUND WATER **Date/Time Received: 09/02/2011 15:45**

Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
trans-1,3-Dichloropropene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,1,2-Trichloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Toluene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,3-Dichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
2-Hexanone (MBK)	ND	ug/L	5		1	5	09/12/11	09/12/11 19:47	1011
1,2-Dibromoethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Dibromochloromethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Acrolein	ND	ug/L	20		1	10	09/12/11	09/12/11 19:47	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Bromoform	ND	ug/L	5		1	2.5	09/12/11	09/12/11 19:47	1011
trans-1,4-dichloro-2-butene	ND	ug/L	5		1	2.5	09/12/11	09/12/11 19:47	1011
Tetrachloroethene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Chlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Ethylbenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
m,p-Xylenes	ND	ug/L	2		1	1	09/12/11	09/12/11 19:47	1011
Styrene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,1,1,2-Tetrachloroethane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
o-Xylene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,2,3-Trichloropropane	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,3-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,4-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,2-Dichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	09/12/11	09/12/11 19:47	1011
1,2,4-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Naphthalene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
1,2,3-Trichlorobenzene	ND	ug/L	1		1	0.5	09/12/11	09/12/11 19:47	1011
Iodomethane	ND	ug/L	20		1	10	09/12/11	09/12/11 19:47	1011



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	11090215	Received By	Sara Dorr
Client Name	EA Engineering	Date Received	09/02/2011 03:45:00 PM
Project Name	Gude Landfill	Delivered By	Client
Project Number	N/A	Tracking No	Not Applicable
Disposal Date	11/01/2011	Logged In By	Sara Dorr

Shipping Container(s)

No. of Coolers	1	Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	4
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes
Chain of Custody	Yes

Sampler Name	<u>Steve Wicker</u>
MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes
Intact?	Yes
Labeled and Labels Legible?	Yes

Custody Seal(s) Intact?	Not Applicable
Seal(s) Signed / Dated	Not Applicable

Total No. of Samples Received 25

Total No. of Containers Received 160

Preservation

Metals	(pH<2)	Yes
Cyanides	(pH>12)	Yes
Sulfide	(pH>9)	Yes
TOC, COD, Phenols	(pH<2)	Yes
TOX, TKN, NH3, Total Phos	(pH<2)	Yes
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample "TGW-07-090111" logged in for Pest/PCB instead of herbicides per client email. Logged in for all tests per previous discussions (some missing on COC), verified with client 9/7/11.

Samples Inspected/Checklist Completed By:

Date: 09/03/2011

Sara Dorr

PM Review and Approval:

Date: 09/06/2011

Simon Crisp

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-3692-1

Client Project/Site: GUDE Landfill

Revision: 2

For:

Phase Separation Sciences

6630 Baltimore National Pike

Route 40 West

Baltimore, Maryland 21228

Attn: John Slowikowski



Authorized for release by:

09/22/2011 11:29:49 AM

Christina Kovitch

Project Manager II

chris.kovitch@testamericainc.com

Designee for

Whitney Ritari

Project Manager I

whitney.ritari@testamericainc.com

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.



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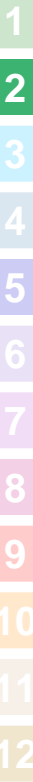


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Case Narrative

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Job ID: 180-3692-1

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative 180-3692-1

Note: Per client requested the the sample Ids be corrected to the Lab sample id on the COC.. Report reissued with the corrections.

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC Semi VOA

No analytical or quality issues were noted.

General Chemistry

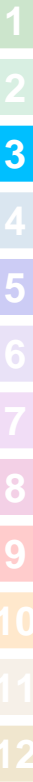
Method 9034: The following sample(s) was prepared and analyzed outside of analytical holding time due to laboratory power outage: TGW-03-090111 (180-3692-1), TGW-04-090111 (180-3692-2), TGW-05-090111 (180-3692-3).

Method 9034: The following sample(s) was prepared and analyzed outside of analytical holding time due to laboratory power outage: DUP-01-090211 (180-3692-4), MW-14A-090211 (180-3692-5), MW-14B-090211 (180-3692-6), MW-15-090211 (180-3692-7), TGW-02-090211 (180-3692-8), TGW-10-090211 (180-3692-9).

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.



Definitions/Glossary

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit (Dioxin)
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or method detection limit if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Phase Separation Sciences
 Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	ACLASS	DoD ELAP		ADE-1422
TestAmerica Pittsburgh	Arkansas	State Program	6	88-0690
TestAmerica Pittsburgh	California	NELAC	9	4224CA
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAC	4	E871008
TestAmerica Pittsburgh	Illinois	NELAC	5	002602
TestAmerica Pittsburgh	Kansas	NELAC	7	E-10350
TestAmerica Pittsburgh	Louisiana	NELAC	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAC	1	203011
TestAmerica Pittsburgh	New Jersey	NELAC	2	PA005
TestAmerica Pittsburgh	New York	NELAC	2	11182
TestAmerica Pittsburgh	North Carolina	North Carolina DENR	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAC	3	02-00416
TestAmerica Pittsburgh	Pennsylvania	State Program	3	02-416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014002
TestAmerica Pittsburgh	USDA	USDA		P-Soil-01
TestAmerica Pittsburgh	USDA	USDA		P330-10-00139
TestAmerica Pittsburgh	Utah	NELAC	8	STLP
TestAmerica Pittsburgh	West Virginia	West Virginia DEP	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



Sample Summary

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-3692-1	11090215-001	Water	09/01/11 09:09	09/07/11 10:00
180-3692-2	11090215-003	Water	09/01/11 10:21	09/07/11 10:00
180-3692-3	11090215-005	Water	09/01/11 09:10	09/07/11 10:00
180-3692-4	11090215-011	Water	09/02/11 08:00	09/07/11 10:00
180-3692-5	11090215-013	Water	09/02/11 08:15	09/07/11 10:00
180-3692-6	11090215-015	Water	09/02/11 09:40	09/07/11 10:00
180-3692-7	11090215-017	Water	09/02/11 10:45	09/07/11 10:00
180-3692-8	11090215-019	Water	09/02/11 08:20	09/07/11 10:00
180-3692-9	11090215-022	Water	09/02/11 12:47	09/07/11 10:00

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Method Summary

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Method	Method Description	Protocol	Laboratory
8141A	Organophosphorous Pesticides (GC)	SW846	TAL PIT
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT

Protocol References:

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

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Client Sample Results

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Client Sample ID: 11090215-001

Lab Sample ID: 180-3692-1

Date Collected: 09/01/11 09:09

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 19:21	1
Disulfoton	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 19:21	1
Famphur	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 19:21	1
Methyl parathion	ND		1.0	0.11	ug/L		09/08/11 14:50	09/12/11 19:21	1
Parathion	ND		1.0	0.16	ug/L		09/08/11 14:50	09/12/11 19:21	1
Phorate	ND		1.0	0.092	ug/L		09/08/11 14:50	09/12/11 19:21	1
Thionazin	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 19:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.72	J H	3.0	0.59	mg/L		09/09/11 14:30	09/09/11 15:31	1

Client Sample ID: 11090215-003

Lab Sample ID: 180-3692-2

Date Collected: 09/01/11 10:21

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 22:03	1
Disulfoton	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 22:03	1
Famphur	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 22:03	1
Methyl parathion	ND		1.0	0.11	ug/L		09/08/11 14:50	09/12/11 22:03	1
Parathion	ND		1.0	0.16	ug/L		09/08/11 14:50	09/12/11 22:03	1
Phorate	ND		1.0	0.092	ug/L		09/08/11 14:50	09/12/11 22:03	1
Thionazin	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 22:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND	H	3.0	0.59	mg/L		09/09/11 14:30	09/09/11 15:31	1

Client Sample ID: 11090215-005

Lab Sample ID: 180-3692-3

Date Collected: 09/01/11 09:10

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 22:30	1
Disulfoton	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 22:30	1
Famphur	ND		1.0	0.13	ug/L		09/08/11 14:50	09/12/11 22:30	1
Methyl parathion	ND		1.0	0.11	ug/L		09/08/11 14:50	09/12/11 22:30	1
Parathion	ND		1.0	0.17	ug/L		09/08/11 14:50	09/12/11 22:30	1
Phorate	ND		1.0	0.094	ug/L		09/08/11 14:50	09/12/11 22:30	1
Thionazin	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 22:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND	H	3.0	0.59	mg/L		09/09/11 14:30	09/09/11 15:31	1

Client Sample Results

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Client Sample ID: 11090215-011

Lab Sample ID: 180-3692-4

Date Collected: 09/02/11 08:00

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		0.98	0.11	ug/L		09/08/11 14:50	09/12/11 22:57	1
Disulfoton	ND		0.98	0.099	ug/L		09/08/11 14:50	09/12/11 22:57	1
Famphur	ND		0.98	0.12	ug/L		09/08/11 14:50	09/12/11 22:57	1
Methyl parathion	ND		0.98	0.11	ug/L		09/08/11 14:50	09/12/11 22:57	1
Parathion	ND		0.98	0.16	ug/L		09/08/11 14:50	09/12/11 22:57	1
Phorate	ND		0.98	0.091	ug/L		09/08/11 14:50	09/12/11 22:57	1
Thionazin	ND		0.98	0.098	ug/L		09/08/11 14:50	09/12/11 22:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.64	J H	3.0	0.59	mg/L		09/10/11 13:00	09/10/11 16:58	1

Client Sample ID: 11090215-013

Lab Sample ID: 180-3692-5

Date Collected: 09/02/11 08:15

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 23:24	1
Disulfoton	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 23:24	1
Famphur	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 23:24	1
Methyl parathion	ND		1.0	0.11	ug/L		09/08/11 14:50	09/12/11 23:24	1
Parathion	ND		1.0	0.16	ug/L		09/08/11 14:50	09/12/11 23:24	1
Phorate	ND		1.0	0.092	ug/L		09/08/11 14:50	09/12/11 23:24	1
Thionazin	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 23:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND	H	3.0	0.59	mg/L		09/10/11 13:00	09/10/11 16:58	1

Client Sample ID: 11090215-015

Lab Sample ID: 180-3692-6

Date Collected: 09/02/11 09:40

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		0.99	0.12	ug/L		09/08/11 14:50	09/12/11 23:50	1
Disulfoton	ND		0.99	0.10	ug/L		09/08/11 14:50	09/12/11 23:50	1
Famphur	ND		0.99	0.12	ug/L		09/08/11 14:50	09/12/11 23:50	1
Methyl parathion	ND		0.99	0.11	ug/L		09/08/11 14:50	09/12/11 23:50	1
Parathion	ND		0.99	0.16	ug/L		09/08/11 14:50	09/12/11 23:50	1
Phorate	ND		0.99	0.091	ug/L		09/08/11 14:50	09/12/11 23:50	1
Thionazin	ND		0.99	0.099	ug/L		09/08/11 14:50	09/12/11 23:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND	H	3.0	0.59	mg/L		09/10/11 13:00	09/10/11 16:58	1

Client Sample Results

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Client Sample ID: 11090215-017

Lab Sample ID: 180-3692-7

Date Collected: 09/02/11 10:45

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.0	0.12	ug/L		09/08/11 14:50	09/13/11 00:17	1
Disulfoton	ND		1.0	0.10	ug/L		09/08/11 14:50	09/13/11 00:17	1
Famphur	ND		1.0	0.12	ug/L		09/08/11 14:50	09/13/11 00:17	1
Methyl parathion	ND		1.0	0.11	ug/L		09/08/11 14:50	09/13/11 00:17	1
Parathion	ND		1.0	0.16	ug/L		09/08/11 14:50	09/13/11 00:17	1
Phorate	ND		1.0	0.092	ug/L		09/08/11 14:50	09/13/11 00:17	1
Thionazin	ND		1.0	0.10	ug/L		09/08/11 14:50	09/13/11 00:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND	H	3.0	0.59	mg/L		09/10/11 13:00	09/10/11 16:58	1

Client Sample ID: 11090215-019

Lab Sample ID: 180-3692-8

Date Collected: 09/02/11 08:20

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.1	0.12	ug/L		09/08/11 14:50	09/13/11 00:44	1
Disulfoton	ND		1.1	0.11	ug/L		09/08/11 14:50	09/13/11 00:44	1
Famphur	ND		1.1	0.13	ug/L		09/08/11 14:50	09/13/11 00:44	1
Methyl parathion	ND		1.1	0.12	ug/L		09/08/11 14:50	09/13/11 00:44	1
Parathion	ND		1.1	0.17	ug/L		09/08/11 14:50	09/13/11 00:44	1
Phorate	ND		1.1	0.098	ug/L		09/08/11 14:50	09/13/11 00:44	1
Thionazin	ND		1.1	0.11	ug/L		09/08/11 14:50	09/13/11 00:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND	H	3.0	0.59	mg/L		09/10/11 13:00	09/10/11 16:58	1

Client Sample ID: 11090215-022

Lab Sample ID: 180-3692-9

Date Collected: 09/02/11 12:47

Matrix: Water

Date Received: 09/07/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.0	0.12	ug/L		09/08/11 14:50	09/13/11 01:11	1
Disulfoton	ND		1.0	0.10	ug/L		09/08/11 14:50	09/13/11 01:11	1
Famphur	ND		1.0	0.12	ug/L		09/08/11 14:50	09/13/11 01:11	1
Methyl parathion	ND		1.0	0.11	ug/L		09/08/11 14:50	09/13/11 01:11	1
Parathion	ND		1.0	0.16	ug/L		09/08/11 14:50	09/13/11 01:11	1
Phorate	ND		1.0	0.092	ug/L		09/08/11 14:50	09/13/11 01:11	1
Thionazin	ND		1.0	0.10	ug/L		09/08/11 14:50	09/13/11 01:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.96	J H	3.0	0.59	mg/L		09/10/11 13:00	09/10/11 16:58	1

QC Sample Results

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Method: 8141A - Organophosphorous Pesticides (GC)

Lab Sample ID: MB 180-13714/1-A

Matrix: Water

Analysis Batch: 13857

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13714

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Dimethoate	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 19:48		1
Disulfoton	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 19:48		1
Famphur	ND		1.0	0.12	ug/L		09/08/11 14:50	09/12/11 19:48		1
Methyl parathion	ND		1.0	0.11	ug/L		09/08/11 14:50	09/12/11 19:48		1
Parathion	ND		1.0	0.16	ug/L		09/08/11 14:50	09/12/11 19:48		1
Phorate	ND		1.0	0.092	ug/L		09/08/11 14:50	09/12/11 19:48		1
Thionazin	ND		1.0	0.10	ug/L		09/08/11 14:50	09/12/11 19:48		1

Lab Sample ID: LCS 180-13714/2-A

Matrix: Water

Analysis Batch: 13860

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13714

Analyte	Spike Added	LCS	LCS	Unit	D	% Rec	% Rec.	Limits
		Result	Qualifier					
Phorate	10.0	9.91		ug/L		99		41 - 135

Lab Sample ID: LCS 180-13714/2-A

Matrix: Water

Analysis Batch: 13857

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13714

Analyte	Spike Added	LCS	LCS	Unit	D	% Rec	% Rec.	Limits
		Result	Qualifier					
Dimethoate	10.0	11.1		ug/L		111		26 - 136
Disulfoton	10.0	10.3		ug/L		103		45 - 124
Famphur	10.0	11.1		ug/L		111		52 - 131
Methyl parathion	10.0	9.89		ug/L		99		41 - 148
Parathion	10.0	9.62		ug/L		96		56 - 125
Thionazin	10.0	9.06		ug/L		91		44 - 128

Lab Sample ID: LCSD 180-13714/3-A

Matrix: Water

Analysis Batch: 13860

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13714

Analyte	Spike Added	LCSD	LCSD	Unit	D	% Rec	% Rec.	Limits	RPD	Limit
		Result	Qualifier							
Phorate	10.0	9.80		ug/L		98		41 - 135	1	24

Lab Sample ID: LCSD 180-13714/3-A

Matrix: Water

Analysis Batch: 13857

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13714

Analyte	Spike Added	LCSD	LCSD	Unit	D	% Rec	% Rec.	Limits	RPD	Limit
		Result	Qualifier							
Dimethoate	10.0	11.4		ug/L		114		26 - 136	2	22
Disulfoton	10.0	10.4		ug/L		104		45 - 124	1	30
Famphur	10.0	11.6		ug/L		116		52 - 131	4	24
Methyl parathion	10.0	10.1		ug/L		101		41 - 148	2	30
Parathion	10.0	9.89		ug/L		99		56 - 125	3	21
Thionazin	10.0	9.10		ug/L		91		44 - 128	0	21

QC Sample Results

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-13526/1-A
Matrix: Water
Analysis Batch: 13540

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13526

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		3.0	0.59	mg/L		09/09/11 14:30	09/09/11 15:31	1

Lab Sample ID: LCS 180-13526/2-A
Matrix: Water
Analysis Batch: 13540

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Sulfide	19.2	18.8		mg/L		98	85 - 115

Lab Sample ID: LCSD 180-13526/3-A
Matrix: Water
Analysis Batch: 13540

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13526

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	Limit
Sulfide	19.2	19.1		mg/L		99	85 - 115	2	20

Lab Sample ID: MB 180-13617/1-A
Matrix: Water
Analysis Batch: 13625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13617

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		3.0	0.59	mg/L		09/10/11 13:00	09/10/11 16:58	1

Lab Sample ID: LCS 180-13617/2-A
Matrix: Water
Analysis Batch: 13625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13617

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Sulfide	19.2	17.3		mg/L		90	85 - 115

QC Association Summary

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

GC Semi VOA

Prep Batch: 13714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-3692-1	11090215-001	Total/NA	Water	3510C	
180-3692-2	11090215-003	Total/NA	Water	3510C	
180-3692-3	11090215-005	Total/NA	Water	3510C	
180-3692-4	11090215-011	Total/NA	Water	3510C	
180-3692-5	11090215-013	Total/NA	Water	3510C	
180-3692-6	11090215-015	Total/NA	Water	3510C	
180-3692-7	11090215-017	Total/NA	Water	3510C	
180-3692-8	11090215-019	Total/NA	Water	3510C	
180-3692-9	11090215-022	Total/NA	Water	3510C	
LCS 180-13714/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 180-13714/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 180-13714/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 13857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-3692-1	11090215-001	Total/NA	Water	8141A	13714
180-3692-2	11090215-003	Total/NA	Water	8141A	13714
180-3692-3	11090215-005	Total/NA	Water	8141A	13714
180-3692-4	11090215-011	Total/NA	Water	8141A	13714
180-3692-5	11090215-013	Total/NA	Water	8141A	13714
180-3692-6	11090215-015	Total/NA	Water	8141A	13714
180-3692-7	11090215-017	Total/NA	Water	8141A	13714
180-3692-8	11090215-019	Total/NA	Water	8141A	13714
180-3692-9	11090215-022	Total/NA	Water	8141A	13714
LCS 180-13714/2-A	Lab Control Sample	Total/NA	Water	8141A	13714
LCSD 180-13714/3-A	Lab Control Sample Dup	Total/NA	Water	8141A	13714
MB 180-13714/1-A	Method Blank	Total/NA	Water	8141A	13714

Analysis Batch: 13860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-13714/2-A	Lab Control Sample	Total/NA	Water	8141A	13714
LCSD 180-13714/3-A	Lab Control Sample Dup	Total/NA	Water	8141A	13714

General Chemistry

Prep Batch: 13526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-3692-1	11090215-001	Total/NA	Water	9030B	
180-3692-2	11090215-003	Total/NA	Water	9030B	
180-3692-3	11090215-005	Total/NA	Water	9030B	
LCS 180-13526/2-A	Lab Control Sample	Total/NA	Water	9030B	
LCSD 180-13526/3-A	Lab Control Sample Dup	Total/NA	Water	9030B	
MB 180-13526/1-A	Method Blank	Total/NA	Water	9030B	

Analysis Batch: 13540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-3692-1	11090215-001	Total/NA	Water	9034	13526
180-3692-2	11090215-003	Total/NA	Water	9034	13526
180-3692-3	11090215-005	Total/NA	Water	9034	13526
LCS 180-13526/2-A	Lab Control Sample	Total/NA	Water	9034	13526
LCSD 180-13526/3-A	Lab Control Sample Dup	Total/NA	Water	9034	13526
MB 180-13526/1-A	Method Blank	Total/NA	Water	9034	13526

QC Association Summary

Client: Phase Separation Sciences
 Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3692-1

General Chemistry (Continued)

Prep Batch: 13617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-3692-4	11090215-011	Total/NA	Water	9030B	
180-3692-5	11090215-013	Total/NA	Water	9030B	
180-3692-6	11090215-015	Total/NA	Water	9030B	
180-3692-7	11090215-017	Total/NA	Water	9030B	
180-3692-8	11090215-019	Total/NA	Water	9030B	
180-3692-9	11090215-022	Total/NA	Water	9030B	
LCS 180-13617/2-A	Lab Control Sample	Total/NA	Water	9030B	
MB 180-13617/1-A	Method Blank	Total/NA	Water	9030B	

Analysis Batch: 13625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-3692-4	11090215-011	Total/NA	Water	9034	13617
180-3692-5	11090215-013	Total/NA	Water	9034	13617
180-3692-6	11090215-015	Total/NA	Water	9034	13617
180-3692-7	11090215-017	Total/NA	Water	9034	13617
180-3692-8	11090215-019	Total/NA	Water	9034	13617
180-3692-9	11090215-022	Total/NA	Water	9034	13617
LCS 180-13617/2-A	Lab Control Sample	Total/NA	Water	9034	13617
MB 180-13617/1-A	Method Blank	Total/NA	Water	9034	13617





Chain of Custody Form for Subcontracted Analyses

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

W.O. No. : 11090215
P.O. No. : _____
Project Name : Gude Landfill
Project Number : N/A

Samples Transferred To:
Test America
5710 Executive Drive, Suite 106
Catonsville, MD 21228
Contact: Ken Ives
Phone : 410-869-0085

Report Due On : 09/12/11 05:00

For Questions or Issues please contact: John Slowikowski

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
11090215-001	TGW-03-090111	09/01/11	09:09	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-001	TGW-03-090111	09/01/11	09:09	Water	Sulfides	SW9030B	250 ml HDPE	PH9C
11090215-003	TGW-04-090111	09/01/11	10:21	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-003	TGW-04-090111	09/01/11	10:21	Water	Sulfides	SW9030B	250 ml HDPE	PH9C
11090215-005	TGW-05-090111	09/01/11	09:10	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-005	TGW-05-090111	09/01/11	09:10	Water	Sulfides	SW9030B	250 ml HDPE	PH9C
11090215-011	DUP-01-090211	09/02/11	08:00	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-011	DUP-01-090211	09/02/11	08:00	Water	Sulfides	SW9030B	250 ml HDPE	PH9C
11090215-013	MW-14A-090211	09/02/11	08:15	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-013	MW-14A-090211	09/02/11	08:15	Water	Sulfides	SW9030B	250 ml HDPE	PH9C
11090215-015	MW-14B-090211	09/02/11	09:40	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-015	MW-14B-090211	09/02/11	09:40	Water	Sulfides	SW9030B	250 ml HDPE	PH9C
11090215-017	MW-15-090211	09/02/11	10:45	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-017	MW-15-090211	09/02/11	10:45	Water	Sulfides	SW9030B	250 ml HDPE	PH9C
11090215-019	TGW-02-090211	09/02/11	08:20	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-019	TGW-02-090211	09/02/11	08:20	Water	Sulfides	SW9030B	250 ml HDPE	PH9C
11090215-022	TGW-10-090211	09/02/11	12:47	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL
11090215-022	TGW-10-090211	09/02/11	12:47	Water	Sulfides	SW9030B	250 ml HDPE	PH9C

Data Deliverables Required: **COA**

Perform Q.C. on Sample :

Send Report Attn : reporting@phaseonline.com

Send Invoice Attn : invoicing@phaseonline.com

Airbill No. : _____
Carrier : DAL

Condition Upon Receipt : _____
Comments : _____
[Handwritten signatures and initials]



Chain of Custody Form for Subcontracted Analyses

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

W.O. No.: 11090215
P.O. No.:
Project Name: Gude Landfill
Project Number: N/A

Samples Transferred To:
Test America
5710 Executive Drive, Suite 106
Catonsville, MD 21228
Contact: Ken Ives
Phone: 410-869-0085

Carrier: DAC

Samples Relinquished By: SMD Date: 9/10/11 Time: 10:15 Samples Received By: Don Carter #2035
Samples Relinquished By: Don Carter #203 Date: 09/06/11 Time: 10:39 Samples Received By: Paul Gayle
Samples Relinquished By: Paul Gayle Date: 9/6/11 Time: 1:30 Samples Received By: _____

Sub-Contractor: Test America Method: SW8141A

Matrix: Water

- Analyte Name
- Dimethoate
- Disulfoton
- Famphur
- Parathion, Ethyl
- Parathion, Methyl
- Phorate
- Zinophos

From: (410) 869-0085
Ken Ives
STL BALTIMORE
5710 Executive Drive
Suite 106
Baltimore, MD 21228

Origin ID: MTNA



J11201104290225

Ship Date: 06SEP11
ActWgt: 62.0 LB
CAD: 1030460/NET3180

Delivery Address Bar Code



SHIP TO: (412) 963-7058
Test America Pittsburgh
Test America Pittsburgh
301 ALPHA DR
RIDC PARK
PITTSBURGH, PA 15238

BILL RECIPIENT

Ref # Phase Separation Sciences
Invoice #
PO #
Dept #

2 of 2

WED - 07 SEP A2
STANDARD OVERNIGHT

MPS# 7974 8700 3585

0263

Mstr# 7974 8700 3471

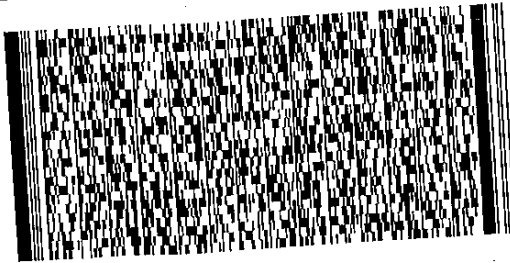
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15238

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50FG2/4239/F5F4

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Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

21
11
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1

From: (410) 869-0085
Ken Ives
STL BALTIMORE
5710 Executive Drive
Suite 106
Baltimore, MD 21228

Origin ID: MTNA



J11201104290225

Ship Date: 06SEP11
Act/Wgt: 53.0 LB
CAD: 1030460/INET3180

Delivery Address Bar Code



SHIP TO: (412) 963-7058

BILL RECIPIENT

Test America Pittsburgh
Test America Pittsburgh
301 ALPHA DR
RIDC PARK
PITTSBURGH, PA 15238

Ref # Phase Separation Sciences
Invoice #
PO #
Dept #

1 of 2

WED - 07 SEP A2
STANDARD OVERNIGHT

TRK# 7974 8700 3471

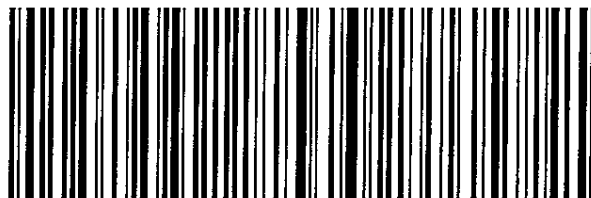
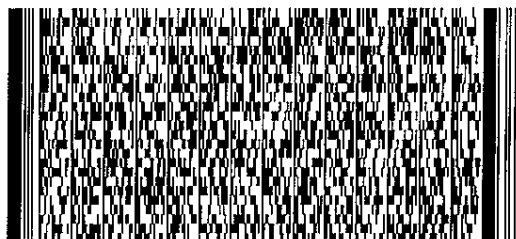
0201

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Login Sample Receipt Checklist

Client: Phase Separation Sciences

Job Number: 180-3692-1

Login Number: 3692

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Gamber, Tom

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Analytical Report for

EA Engineering

Certificate of Analysis No.: 11091325

Project Manager: Pete Lekas

Project Name : Gude Landfill

Project Location: Rockville, MD



October 11, 2011

Phase Separation Science, Inc.

6630 Baltimore National Pike

Baltimore, MD 21228

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Fax: (410) 788-8723

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BALTIMORE, MD 21228
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800-932-9047
FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



October 11, 2011

Pete Lekas
EA Engineering
15 Loveton Circle
Sparks, MD 21152

Reference: PSS Work Order No: **11091325**
Project Name: Gude Landfill
Project Location: Rockville, MD

Dear Pete Lekas :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order numbered **11091325**.

All work reported herein has been performed in accordance with current NELAP standards referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on November 12, 2011. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

A handwritten signature in black ink that reads 'Dan Prucnal'.

Dan Prucnal

Laboratory Manager



Sample Summary

Client Name: EA Engineering
Project Name: Gude Landfill

Project ID: N/A

Work Order Number: 11091325

The following samples were received under chain of custody by Phase Separation Science (PSS) on 09/13/2011 at 04:00 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
11091325-001	TGW-01-091311	GROUND WATER	09/13/2011 09:10
11091325-002	TGW-05-091311	GROUND WATER	09/13/2011 10:35
11091325-003	TGW-07-091311	GROUND WATER	09/13/2011 12:00
11091325-004	TGW-08-091311	GROUND WATER	09/13/2011 12:20
11091325-005	TGW-09-091311	GROUND WATER	09/13/2011 13:10
11091325-006	TGW-09-091311 (Diss. Met.)	GROUND WATER	09/13/2011 13:10
11091325-007	TGW-06-091311	GROUND WATER	09/13/2011 13:30
11091325-008	TGW-06-091311 (Diss. Met.)	GROUND WATER	09/13/2011 13:30

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of common laboratory contaminants such as acetone, methylene chloride and phthalates, may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. The following analytical results are never reported on a dry weight basis: pH, flashpoint, moisture and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the LOD.
- LOD Limit of Detection. An estimate of the minimum amount of a substance that an analytical process can reliably detect.
An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.



Case Narrative Summary

Client Name: EA Engineering

Project Name: Gude Landfill

Project ID: N/A

Work Order Number: 11091325

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Sample Receipt:

All sample receipt conditions were acceptable.

Analyses associated with analyst code 4032 were performed by Test America

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

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 6630 BALTIMORE NATIONAL PIKE
 ROUTE 40 WEST
 BALTIMORE, MD 21228
 410-747-8770
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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-01-091311 **Date/Time Sampled: 09/13/2011 09:10** **PSS Sample ID: 11091325-001**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Dissolved Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Barium	2.9	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Cadmium	0.5	ug/L	1.0	J	1	0.5	09/19/11	09/20/11 12:32	1034
Chromium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Cobalt	9.2	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Copper	1.1	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Lead	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Mercury	ND	ug/L	0.20		1	0.1	09/19/11	09/20/11 12:32	1034
Nickel	3.6	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Selenium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Silver	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Thallium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:32	1034
Tin	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 12:32	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 12:32	1034
Zinc	18	ug/L	10		1	10	09/19/11	09/20/11 12:32	1034

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 800-932-9047
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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11091325

EA Engineering, Sparks, MD

October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-01-091311 **Date/Time Sampled: 09/13/2011 09:10** **PSS Sample ID: 11091325-001**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Acetophenone	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Anthracene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/15/11	09/15/11 18:11	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Chrysene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11091325

EA Engineering, Sparks, MD

October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-01-091311 **Date/Time Sampled: 09/13/2011 09:10** **PSS Sample ID: 11091325-001**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/15/11	09/15/11 18:11	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Fluorene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Isophorone	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/15/11	09/15/11 18:11	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/15/11	09/15/11 18:11	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/15/11	09/15/11 18:11	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Phenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Pyrene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11091325

EA Engineering, Sparks, MD

October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-01-091311 **Date/Time Sampled: 09/13/2011 09:10** **PSS Sample ID: 11091325-001**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014
Diethyltoluamide (TIC)	7	ug/L	5		1	2.5	09/15/11	09/15/11 18:11	1014

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CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-05-091311 **Date/Time Sampled: 09/13/2011 10:35** **PSS Sample ID: 11091325-002**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Turbidity Analytical Method: EPA 180.1

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Turbidity	23,000	NTU	0.2		1	0.1	09/15/11	09/15/11 09:05	1034

Chloride, Sulfate, Nitrate Analytical Method: EPA 300.0 Preparation Method: E300.0P

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Chloride	75	mg/L	0.2		1	0.1	09/14/11	09/14/11 16:18	1035
Nitrate (as N)	0.2	mg/L	0.1		1	0.05	09/14/11	09/14/11 16:18	1035
Sulfate	52	mg/L	0.2		1	0.1	09/14/11	09/14/11 16:18	1035

Specific conductance Analytical Method: SM 2510B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Conductivity	460	us/cm	1		1	1	09/14/11	09/14/11 14:40	1044

pH, Electrometric Analytical Method: SM 4500-H+ B 18th Ed.

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
pH	5.7	S.U.			1		09/14/11	09/14/11 14:40	1044

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.2		1	0.59	09/15/11	09/16/11 13:56	1029
PCB-1221	ND	ug/L	1.2		1	0.59	09/15/11	09/16/11 13:56	1029
PCB-1232	ND	ug/L	1.2		1	0.59	09/15/11	09/16/11 13:56	1029
PCB-1242	ND	ug/L	1.2		1	0.59	09/15/11	09/16/11 13:56	1029
PCB-1248	ND	ug/L	1.2		1	0.59	09/15/11	09/16/11 13:56	1029
PCB-1254	ND	ug/L	1.2		1	0.59	09/15/11	09/16/11 13:56	1029
PCB-1260	ND	ug/L	1.2		1	0.59	09/15/11	09/16/11 13:56	1029

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CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-07-091311 **Date/Time Sampled: 09/13/2011 12:00** **PSS Sample ID: 11091325-003**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Organophosphorus Compounds Analytical Method: SW-846 8141 A

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Zinophos	ND	ug/L	1.0		0.1	09/21/11	09/21/11 16:41	4032
Dimethoate	ND	ug/L	1.0		0.12	09/21/11	09/21/11 16:41	4032
Famphur	ND	ug/L	1.0		0.13	09/21/11	09/21/11 16:41	4032
Phorate	ND	ug/L	1.0		0.093	09/21/11	09/21/11 16:41	4032
Disulfoton	ND	ug/L	1.0		0.1	09/21/11	09/21/11 16:41	4032
Parathion, Ethyl	ND	ug/L	1.0		0.16	09/21/11	09/21/11 16:41	4032
Parathion, Methyl	ND	ug/L	1.0		0.11	09/21/11	09/21/11 16:41	4032

Chlorinated Herbicides Analytical Method: SW-846 8151 A Preparation Method: 8151A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-D	ND	ug/L	3		1	1.3	09/15/11	09/15/11 20:56	1029
2,4,5-TP (Silvex)	ND	ug/L	0.3		1	0.13	09/15/11	09/15/11 20:56	1029
2,4,5-T	ND	ug/L	0.3		1	0.13	09/15/11	09/15/11 20:56	1029
Dinoseb	ND	ug/L	1		1	0.63	09/15/11	09/15/11 20:56	1029

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CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-08-091311 **Date/Time Sampled: 09/13/2011 12:20** **PSS Sample ID: 11091325-004**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Dissolved Metals

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Arsenic	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Barium	5.9	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Cadmium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Chromium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Cobalt	2.2	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Copper	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Lead	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Mercury	ND	ug/L	0.20		1	0.1	09/19/11	09/20/11 12:38	1034
Nickel	2.0	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Selenium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Silver	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Thallium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:38	1034
Tin	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 12:38	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 12:38	1034
Zinc	ND	ug/L	10		1	10	09/19/11	09/20/11 12:38	1034

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CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-08-091311 **Date/Time Sampled: 09/13/2011 12:20** **PSS Sample ID: 11091325-004**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
gamma-BHC (Lindane)	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
beta-BHC	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
delta-BHC	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Heptachlor	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Aldrin	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Heptachlor epoxide	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
gamma-Chlordane	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
alpha-Chlordane	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
4,4-DDE	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Endosulfan I	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Dieldrin	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Endrin	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
4,4-DDD	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Endosulfan II	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
4,4-DDT	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Endrin aldehyde	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Methoxychlor	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Endosulfan sulfate	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Endrin ketone	ND	ug/L	0.08		1	0.04	09/15/11	09/16/11 13:48	1029
Toxaphene	ND	ug/L	2		1	1	09/15/11	09/16/11 13:48	1029
Chlordane	ND	ug/L	2		1	1	09/15/11	09/16/11 13:48	1029

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CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-08-091311 **Date/Time Sampled: 09/13/2011 12:20** **PSS Sample ID: 11091325-004**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Polychlorinated Biphenyls

Analytical Method: SW-846 8082 A

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.0		1	0.5	09/15/11	09/16/11 14:25	1029
PCB-1221	ND	ug/L	1.0		1	0.5	09/15/11	09/16/11 14:25	1029
PCB-1232	ND	ug/L	1.0		1	0.5	09/15/11	09/16/11 14:25	1029
PCB-1242	ND	ug/L	1.0		1	0.5	09/15/11	09/16/11 14:25	1029
PCB-1248	ND	ug/L	1.0		1	0.5	09/15/11	09/16/11 14:25	1029
PCB-1254	ND	ug/L	1.0		1	0.5	09/15/11	09/16/11 14:25	1029
PCB-1260	ND	ug/L	1.0		1	0.5	09/15/11	09/16/11 14:25	1029

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CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-09-091311 **Date/Time Sampled: 09/13/2011 13:10** **PSS Sample ID: 11091325-005**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Total Metals plus Hardness

Analytical Method: SW-846 6020 A

Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Arsenic	2.7	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Barium	59	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Beryllium	1.1	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Cadmium	5.0	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Hardness (Ca & Mg)	53	mg/L	6.6		10	0.3	09/19/11	09/20/11 14:49	1034
Chromium	23	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Cobalt	25	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Copper	25	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Lead	5.0	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Mercury	ND	ug/L	0.20		1	0.1	09/19/11	09/20/11 14:49	1034
Nickel	13	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Selenium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Silver	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Thallium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:49	1034
Tin	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 14:49	1034
Vanadium	51	ug/L	5.0		1	2.5	09/19/11	09/20/11 14:49	1034
Zinc	72	ug/L	10		1	10	09/19/11	09/20/11 14:49	1034

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11091325

EA Engineering, Sparks, MD

October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-09-091311 **Date/Time Sampled: 09/13/2011 13:10** **PSS Sample ID: 11091325-005**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Acenaphthylene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Acetophenone	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Anthracene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Benzo(a)anthracene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Benzo(a)pyrene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Benzo(b)fluoranthene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Benzo(g,h,i)perylene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Benzo(k)fluoranthene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Benzyl butyl phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
bis(2-chloroethoxy) methane	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
bis(2-chloroethyl) ether	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
bis(2-chloroisopropyl) ether	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
bis(2-ethylhexyl) phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
4-Bromophenylphenyl ether	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Di-n-butyl phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
4-Chloro-3-methylphenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
4-Chloroaniline	ND	ug/L	10		1	5	09/15/11	09/15/11 18:38	1014
2-Chloronaphthalene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2-Chlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
4-Chlorophenyl phenyl ether	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Chrysene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Dibenz(a,h)anthracene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Dibenzofuran	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
3,3-Dichlorobenzidine	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2,4-Dichlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Diethyl phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Dimethyl phthalate	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2,4-Dimethylphenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
4,6-Dinitro-2-methyl phenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014

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CERTIFICATE OF ANALYSIS

No: 11091325

EA Engineering, Sparks, MD

October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-09-091311 **Date/Time Sampled: 09/13/2011 13:10** **PSS Sample ID: 11091325-005**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	ND	ug/L	10		1	5	09/15/11	09/15/11 18:38	1014
2,4-Dinitrotoluene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2,6-Dinitrotoluene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Fluoranthene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Fluorene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Hexachlorobenzene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Hexachlorobutadiene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Hexachlorocyclopentadiene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Hexachloroethane	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Indeno(1,2,3-c,d)pyrene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Isophorone	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2-Methylnaphthalene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2-Methylphenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
3&4-Methylphenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
4-Nitroaniline	ND	ug/L	10		1	5	09/15/11	09/15/11 18:38	1014
3-Nitroaniline	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2-Nitroaniline	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Nitrobenzene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2-Nitrophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
4-Nitrophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
N-Nitrosodimethylamine	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
N-Nitrosodi-n-propylamine	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
N-Nitrosodiphenylamine	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Di-n-octyl phthalate	ND	ug/L	10		1	5	09/15/11	09/15/11 18:38	1014
Pentachlorophenol	ND	ug/L	10		1	5	09/15/11	09/15/11 18:38	1014
Phenanthrene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Phenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
Pyrene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
1,2,4,5-Tetrachlorobenzene	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2,3,4,6-Tetrachlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014

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PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-09-091311 **Date/Time Sampled: 09/13/2011 13:10** **PSS Sample ID: 11091325-005**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: 3510C

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
2,4,6-Trichlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014
2,4,5-Trichlorophenol	ND	ug/L	5		1	2.5	09/15/11	09/15/11 18:38	1014

Sample ID: TGW-09-091311 (Diss. Met.) **Date/Time Sampled: 09/13/2011 13:10** **PSS Sample ID: 11091325-006**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Arsenic	0.5	ug/L	1.0	J	1	0.5	09/19/11	09/20/11 12:44	1034
Barium	2.5	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Cadmium	0.8	ug/L	1.0	J	1	0.5	09/19/11	09/20/11 12:44	1034
Chromium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Cobalt	3.4	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Copper	2.0	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Lead	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Mercury	ND	ug/L	0.20		1	0.1	09/19/11	09/20/11 12:44	1034
Nickel	3.6	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Selenium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Silver	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Thallium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:44	1034
Tin	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 12:44	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 12:44	1034
Zinc	ND	ug/L	10		1	10	09/19/11	09/20/11 12:44	1034

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CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-06-091311 **Date/Time Sampled: 09/13/2011 13:30** **PSS Sample ID: 11091325-007**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Total Metals plus Hardness Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Arsenic	6.7	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Barium	530	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Beryllium	4.7	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Cadmium	4.4	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Hardness (Ca & Mg)	240	mg/L	66.2		100	0.3	09/19/11	09/20/11 14:55	1034
Chromium	94	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Cobalt	97	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Copper	87	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Lead	69	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Mercury	ND	ug/L	0.20		1	0.1	09/19/11	09/20/11 14:55	1034
Nickel	49	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Selenium	1.0	ug/L	1.0	J	1	0.5	09/19/11	09/20/11 14:55	1034
Silver	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Thallium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 14:55	1034
Tin	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 14:55	1034
Vanadium	210	ug/L	5.0		1	2.5	09/19/11	09/20/11 14:55	1034
Zinc	130	ug/L	10		1	10	09/19/11	09/20/11 14:55	1034

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CERTIFICATE OF ANALYSIS

No: 11091325

EA Engineering, Sparks, MD

October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-06-091311 **Date/Time Sampled: 09/13/2011 13:30** **PSS Sample ID: 11091325-007**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Organochlorine Pesticides

Analytical Method: SW-846 8081 B

Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
gamma-BHC (Lindane)	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
beta-BHC	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
delta-BHC	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Heptachlor	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Aldrin	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Heptachlor epoxide	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
gamma-Chlordane	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
alpha-Chlordane	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
4,4-DDE	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Endosulfan I	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Dieldrin	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Endrin	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
4,4-DDD	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Endosulfan II	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
4,4-DDT	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Endrin aldehyde	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Methoxychlor	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Endosulfan sulfate	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Endrin ketone	ND	ug/L	0.10		1	0.05	09/15/11	09/16/11 14:16	1029
Toxaphene	ND	ug/L	3		1	1.3	09/15/11	09/16/11 14:16	1029
Chlordane	ND	ug/L	3		1	1.3	09/15/11	09/16/11 14:16	1029

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CERTIFICATE OF ANALYSIS

No: 11091325
 EA Engineering, Sparks, MD
 October 11, 2011

Project Name: Gude Landfill
 Project Location: Rockville, MD

Sample ID: TGW-06-091311 **Date/Time Sampled: 09/13/2011 13:30** **PSS Sample ID: 11091325-007**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Polychlorinated Biphenyls Analytical Method: SW-846 8082 A Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
PCB-1016	ND	ug/L	1.3		1	0.63	09/15/11	09/16/11 14:55	1029
PCB-1221	ND	ug/L	1.3		1	0.63	09/15/11	09/16/11 14:55	1029
PCB-1232	ND	ug/L	1.3		1	0.63	09/15/11	09/16/11 14:55	1029
PCB-1242	ND	ug/L	1.3		1	0.63	09/15/11	09/16/11 14:55	1029
PCB-1248	ND	ug/L	1.3		1	0.63	09/15/11	09/16/11 14:55	1029
PCB-1254	ND	ug/L	1.3		1	0.63	09/15/11	09/16/11 14:55	1029
PCB-1260	ND	ug/L	1.3		1	0.63	09/15/11	09/16/11 14:55	1029

Sample ID: TGW-06-091311 (Diss. Met.) **Date/Time Sampled: 09/13/2011 13:30** **PSS Sample ID: 11091325-008**
Matrix: GROUND WATER **Date/Time Received: 09/13/2011 16:00**

Dissolved Metals Analytical Method: SW-846 6020 A Preparation Method: 3010A

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Antimony	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Arsenic	0.7	ug/L	1.0	J	1	0.5	09/19/11	09/20/11 12:49	1034
Barium	110	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Beryllium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Cadmium	1.4	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Chromium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Cobalt	26	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Copper	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Lead	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Mercury	ND	ug/L	0.20		1	0.1	09/19/11	09/20/11 12:49	1034
Nickel	7.3	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Selenium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Silver	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Thallium	ND	ug/L	1.0		1	0.5	09/19/11	09/20/11 12:49	1034
Tin	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 12:49	1034
Vanadium	ND	ug/L	5.0		1	2.5	09/19/11	09/20/11 12:49	1034
Zinc	14	ug/L	10		1	10	09/19/11	09/20/11 12:49	1034



Analytical Data Package Information Summary for W.O 11091325

Report Prepared For: EA Engineering, Sparks, MD
 Project Name: Gude Landfill
 Project Manager: Pete Lekas

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Received	Prepared	Analyzed
EPA 180.1	TGW-05-091311	Initial	11091325-002	1034	W	92754	92754	09/13/2011	09/13/2011	09/15/2011	09/15/2011
EPA 300.0	TGW-05-091311	Initial	11091325-002	1035	W	38601	92755	09/13/2011	09/13/2011	09/14/2011	09/14/2011
	38601-1-BKS	BKS	38601-1-BKS	1035	W	38601	92755	-----	09/13/2011	09/14/2011	09/14/2011
	38601-1-BLK	BLK	38601-1-BLK	1035	W	38601	92755	-----	09/13/2011	09/14/2011	09/14/2011
	38601-1-BSD	BSD	38601-1-BSD	1035	W	38601	92755	-----	09/13/2011	09/14/2011	09/14/2011
	TGW-05-091311 S	MS	11091325-002 S	1035	W	38601	92755	09/13/2011	09/13/2011	09/14/2011	09/14/2011
	MW-20 S	MS	11091326-003 S	1035	W	38601	92755	09/13/2011	09/13/2011	09/14/2011	09/14/2011
SM 2510B	TGW-05-091311	Initial	11091325-002	1044	W	92732	92732	09/13/2011	09/13/2011	09/14/2011	09/14/2011
	TGW-05-091311 D	MD	11091325-002 D	1044	W	92732	92732	09/13/2011	09/13/2011	09/14/2011	09/14/2011
SM 4500-H+ B 18th Ed.	TGW-05-091311	Initial	11091325-002	1044	W	92734	92734	09/13/2011	09/13/2011	09/14/2011	09/14/2011
	TGW-05-091311 D	MD	11091325-002 D	1044	W	92734	92734	09/13/2011	09/13/2011	09/14/2011	09/14/2011
SW-846 6020 A	TGW-01-091311	Initial	11091325-001	1034	W	38634	92865	09/13/2011	09/13/2011	09/19/2011	09/20/2011
	TGW-08-091311	Initial	11091325-004	1034	W	38634	92865	09/13/2011	09/13/2011	09/19/2011	09/20/2011
	TGW-09-091311 (Diss. Met.)	Initial	11091325-006	1034	W	38634	92865	09/13/2011	09/13/2011	09/19/2011	09/20/2011
	TGW-06-091311 (Diss. Met.)	Initial	11091325-008	1034	W	38634	92865	09/13/2011	09/13/2011	09/19/2011	09/20/2011
	38634-1-BKS	BKS	38634-1-BKS	1034	W	38634	92865	-----	09/13/2011	09/19/2011	09/20/2011
	38634-1-BLK	BLK	38634-1-BLK	1034	W	38634	92865	-----	09/13/2011	09/19/2011	09/20/2011
	CS19C-13-W-1 S	MS	11091518-001 S	1034	W	38634	92865	09/14/2011	09/13/2011	09/19/2011	09/20/2011
	CS19C-13-W-1 SD	MSD	11091518-001 SD	1034	W	38634	92865	09/14/2011	09/13/2011	09/19/2011	09/20/2011
SW-846 6020 A	TGW-09-091311	Initial	11091325-005	1034	W	38633	92871	09/13/2011	09/13/2011	09/19/2011	09/20/2011
	TGW-06-091311	Initial	11091325-007	1034	W	38633	92871	09/13/2011	09/13/2011	09/19/2011	09/20/2011
	38633-1-BKS	BKS	38633-1-BKS	1034	W	38633	92871	-----	09/13/2011	09/19/2011	09/20/2011
	38633-1-BLK	BLK	38633-1-BLK	1034	W	38633	92871	-----	09/13/2011	09/19/2011	09/20/2011
	TGW-09-091311 S	MS	11091325-005 S	1034	W	38633	92871	09/13/2011	09/13/2011	09/19/2011	09/20/2011
	TGW-09-091311 SD	MSD	11091325-005 SD	1034	W	38633	92871	09/13/2011	09/13/2011	09/19/2011	09/20/2011



Analytical Data Package Information Summary for W.O 11091325

Report Prepared For: EA Engineering, Sparks, MD

Project Name: Gude Landfill

Project Manager: Pete Lekas

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Received	Prepared	Analyzed
SW-846 8081 B	TGW-08-091311	Initial	11091325-004	1029	W	38610	92824	09/13/2011	09/13/2011	09/15/2011	09/16/2011
	TGW-06-091311	Initial	11091325-007	1029	W	38610	92824	09/13/2011	09/13/2011	09/15/2011	09/16/2011
	38610-1-BKS	BKS	38610-1-BKS	1029	W	38610	92824	-----	09/13/2011	09/15/2011	09/16/2011
	38610-1-BLK	BLK	38610-1-BLK	1029	W	38610	92824	-----	09/13/2011	09/15/2011	09/16/2011
	38610-1-BSD	BSD	38610-1-BSD	1029	W	38610	92824	-----	09/13/2011	09/15/2011	09/16/2011
SW-846 8082 A	TGW-05-091311	Initial	11091325-002	1029	W	38611	92817	09/13/2011	09/13/2011	09/15/2011	09/16/2011
	TGW-08-091311	Initial	11091325-004	1029	W	38611	92817	09/13/2011	09/13/2011	09/15/2011	09/16/2011
	TGW-06-091311	Initial	11091325-007	1029	W	38611	92817	09/13/2011	09/13/2011	09/15/2011	09/16/2011
	38611-1-BKS	BKS	38611-1-BKS	1029	W	38611	92817	-----	09/13/2011	09/15/2011	09/16/2011
	38611-1-BLK	BLK	38611-1-BLK	1029	W	38611	92817	-----	09/13/2011	09/15/2011	09/16/2011
	38611-1-BSD	BSD	38611-1-BSD	1029	W	38611	92817	-----	09/13/2011	09/15/2011	09/16/2011
SW-846 8141 A	TGW-07-091311	Initial	11091325-003	4032	W	93184	93184	09/13/2011	09/13/2011	09/21/2011	09/21/2011
SW-846 8151 A	TGW-07-091311	Initial	11091325-003	1029	W	38594	92773	09/13/2011	09/13/2011	09/15/2011	09/15/2011
	38594-1-BKS	BKS	38594-1-BKS	1029	W	38594	92773	-----	09/13/2011	09/15/2011	09/15/2011
	38594-1-BLK	BLK	38594-1-BLK	1029	W	38594	92773	-----	09/13/2011	09/15/2011	09/15/2011
	38594-1-BSD	BSD	38594-1-BSD	1029	W	38594	92773	-----	09/13/2011	09/15/2011	09/15/2011
SW-846 8270 C	TGW-01-091311	Initial	11091325-001	1014	W	38599	92821	09/13/2011	09/13/2011	09/15/2011	09/15/2011
	TGW-09-091311	Initial	11091325-005	1014	W	38599	92821	09/13/2011	09/13/2011	09/15/2011	09/15/2011
	38599-1-BKS	BKS	38599-1-BKS	1014	W	38599	92821	-----	09/13/2011	09/15/2011	09/15/2011
	38599-1-BLK	BLK	38599-1-BLK	1014	W	38599	92821	-----	09/13/2011	09/15/2011	09/15/2011
	38599-1-BSD	BSD	38599-1-BSD	1014	W	38599	92821	-----	09/13/2011	09/15/2011	09/15/2011

Form 2 - Surrogate Recoveries

Project Name: Gude Landfill

10/11/2011

Work Order #: 11091325

Project ID: N/A

Lab Batch #: 92824

Sample: 11091325-004 / SMP

Matrix: Ground Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Organochlorine Pesticides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
Decachlorobiphenyl	29.3	25.00	117	55-139	
Tetrachloro-m-xylene	19.6	25.00	78	29-119	

Lab Batch #: 92824

Sample: 11091325-007 / SMP

Matrix: Ground Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Organochlorine Pesticides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
Decachlorobiphenyl	22.9	25.00	91	55-139	
Tetrachloro-m-xylene	16.7	25.00	67	29-119	

Lab Batch #: 92824

Sample: 38610-1-BKS / BKS

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Organochlorine Pesticides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
Decachlorobiphenyl	28.0	25.00	112	55-139	
Tetrachloro-m-xylene	19.2	25.00	77	29-119	

Lab Batch #: 92824

Sample: 38610-1-BLK / BLK

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Organochlorine Pesticides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
Decachlorobiphenyl	26.0	25.00	104	55-139	
Tetrachloro-m-xylene	17.4	25.00	70	29-119	

Lab Batch #: 92824

Sample: 38610-1-BSD / BSD

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Organochlorine Pesticides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
Decachlorobiphenyl	27.1	25.00	108	55-139	
Tetrachloro-m-xylene	18.9	25.00	76	29-119	

* Surrogate outside of Laboratory QC limits

Surrogate Recovery [C] = 100 * A / B

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

Form 2 - Surrogate Recoveries

Project Name: Gude Landfill

10/11/2011

Work Order #: 11091325

Project ID: N/A

Lab Batch #: 92817

Sample: 11091325-002 / SMP

Matrix: Ground Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Polychlorinated Biphenyls Analytes	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Decachlorobiphenyl	28.0	25.00	112	57-133	
Tetrachloro-m-xylene	22.0	25.00	88	22-125	

Lab Batch #: 92817

Sample: 11091325-004 / SMP

Matrix: Ground Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Polychlorinated Biphenyls Analytes	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Decachlorobiphenyl	29.0	25.00	116	57-133	
Tetrachloro-m-xylene	23.0	25.00	92	22-125	

Lab Batch #: 92817

Sample: 11091325-007 / SMP

Matrix: Ground Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Polychlorinated Biphenyls Analytes	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Decachlorobiphenyl	21.0	25.00	84	57-133	
Tetrachloro-m-xylene	23.0	25.00	92	22-125	

Lab Batch #: 92817

Sample: 38611-1-BKS / BKS

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Polychlorinated Biphenyls Analytes	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Decachlorobiphenyl	24.0	25.00	96	57-133	
Tetrachloro-m-xylene	19.0	25.00	76	22-125	

Lab Batch #: 92817

Sample: 38611-1-BLK / BLK

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Polychlorinated Biphenyls Analytes	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Decachlorobiphenyl	25.0	25.00	100	57-133	
Tetrachloro-m-xylene	18.0	25.00	72	22-125	

* Surrogate outside of Laboratory QC limits

Surrogate Recovery [C] = 100 * A / B

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

Form 2 - Surrogate Recoveries

Project Name: Gude Landfill

10/11/2011

Work Order #: 11091325

Project ID: N/A

Lab Batch #: 92817

Sample: 38611-1-BSD / BSD

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Polychlorinated Biphenyls	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
Decachlorobiphenyl	27.0	25.00	108	57-133	
Tetrachloro-m-xylene	20.0	25.00	80	22-125	

* Surrogate outside of Laboratory QC limits

Surrogate Recovery [C] = 100 * A / B

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

Form 2 - Surrogate Recoveries

Project Name: Gude Landfill

10/11/2011

Work Order #: 11091325

Project ID: N/A

Lab Batch #: 92773

Sample: 11091325-003 / SMP

Matrix: Ground Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Chlorinated Herbicides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
2,4-Dichlorophenylacetic Acid	59.0	50.00	118	41-171	

Lab Batch #: 92773

Sample: 38594-1-BKS / BKS

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Chlorinated Herbicides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
2,4-Dichlorophenylacetic Acid	48.7	50.00	97	41-171	

Lab Batch #: 92773

Sample: 38594-1-BLK / BLK

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Chlorinated Herbicides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
2,4-Dichlorophenylacetic Acid	50.1	50.00	100	41-171	

Lab Batch #: 92773

Sample: 38594-1-BSD / BSD

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Chlorinated Herbicides	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
2,4-Dichlorophenylacetic Acid	52.0	50.00	104	41-171	

* Surrogate outside of Laboratory QC limits

Surrogate Recovery [C] = 100 * A / B

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

Form 2 - Surrogate Recoveries

Project Name: Gude Landfill

10/11/2011

Work Order #: 11091325

Project ID: N/A

Lab Batch #: 92821

Sample: 11091325-001 / SMP

Matrix: Ground Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Semivolatile Organic Compounds	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	15.7	20.00	79	68-115	
2-Fluorophenol	24.3	40.00	61	58-111	
Nitrobenzene-d5	16.0	20.00	80	63-117	
Phenol-d6	27.9	40.00	70	58-112	
Terphenyl-D14	17.3	20.00	87	64-124	
2,4,6-Tribromophenol	34.0	40.00	85	67-125	

Lab Batch #: 92821

Sample: 11091325-005 / SMP

Matrix: Ground Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Semivolatile Organic Compounds	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	18.3	20.00	92	68-115	
2-Fluorophenol	28.0	40.00	70	58-111	
Nitrobenzene-d5	17.9	20.00	89	63-117	
Phenol-d6	31.7	40.00	79	58-112	
Terphenyl-D14	17.7	20.00	89	64-124	
2,4,6-Tribromophenol	37.8	40.00	94	67-125	

Lab Batch #: 92821

Sample: 38599-1-BKS / BKS

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Semivolatile Organic Compounds	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	20.8	20.00	104	68-115	
2-Fluorophenol	38.8	40.00	97	58-111	
Nitrobenzene-d5	22.1	20.00	111	63-117	
Phenol-d6	41.3	40.00	103	58-112	
Terphenyl-D14	20.1	20.00	101	64-124	
2,4,6-Tribromophenol	45.6	40.00	114	67-125	

* Surrogate outside of Laboratory QC limits

Surrogate Recovery [C] = 100 * A / B

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

Form 2 - Surrogate Recoveries

Project Name: Gude Landfill

10/11/2011

Work Order #: 11091325

Project ID: N/A

Lab Batch #: 92821

Sample: 38599-1-BLK / BLK

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Semivolatile Organic Compounds Analytes	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
2-Fluorobiphenyl	22.0	20.00	110	68-115	
2-Fluorophenol	36.5	40.00	91	58-111	
Nitrobenzene-d5	22.0	20.00	110	63-117	
Phenol-d6	38.9	40.00	97	58-112	
Terphenyl-D14	18.4	20.00	92	64-124	
2,4,6-Tribromophenol	41.8	40.00	105	67-125	

Lab Batch #: 92821

Sample: 38599-1-BSD / BSD

Matrix: Water

Units: ug/L

SURROGATE RECOVERY STUDY					
Semivolatile Organic Compounds Analytes	Amount Found [A]	True Amount [B]	Recovery %R [C]	Control Limits %R	Flags
2-Fluorobiphenyl	20.8	20.00	104	68-115	
2-Fluorophenol	37.2	40.00	93	58-111	
Nitrobenzene-d5	21.4	20.00	107	63-117	
Phenol-d6	38.7	40.00	97	58-112	
Terphenyl-D14	18.6	20.00	93	64-124	
2,4,6-Tribromophenol	42.7	40.00	107	67-125	

* Surrogate outside of Laboratory QC limits

Surrogate Recovery [C] = 100 * A / B

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

Blank Summary 11091325

EA Engineering, Sparks, MD

Gude Landfill

Analytical Method: EPA 300.0 Matrix: WATER	Prep Method: E300.0P
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Sample Id: 38601-1-BLK	Lab Sample Id: 38601-1-BLK						
Date Analyzed: Sep-14-11 09:33	Analyst: 1035	Date Prep: Sep-14-11 08:28	Tech: 1035				
	Seq Number: 92755						
Parameter	Cas Number	Result	RL	LOD	Units	Flag	Dil
Chloride	16887-00-6	ND	0.2	0.10	mg/L	U	1
Nitrate (as N)	7727-37-9	ND	0.1	0.05	mg/L	U	1
Sulfate	18785-72-3	ND	0.2	0.10	mg/L	U	1

Blank Summary 11091325

EA Engineering, Sparks, MD

Gude Landfill

Analytical Method: SW-846 6020 A	Prep Method: SW3010A
Matrix: WATER	

Sample Id: 38634-1-BLK	Lab Sample Id: 38634-1-BLK						
Date Analyzed: Sep-20-11 18:34	Analyst: 1034	Date Prep: Sep-19-11 08:35	Tech: 1034				
	Seq Number: 92865						
Parameter	Cas Number	Result	RL	LOD	Units	Flag	Dil
Antimony	7440-36-0	ND	1.0	0.50	ug/L	U	1
Arsenic	7440-38-2	ND	1.0	0.50	ug/L	U	1
Barium	7440-39-3	ND	1.0	0.50	ug/L	U	1
Beryllium	7440-41-7	ND	1.0	0.50	ug/L	U	1
Cadmium	7440-43-9	ND	1.0	0.50	ug/L	U	1
Chromium	7440-47-3	ND	1.0	0.50	ug/L	U	1
Cobalt	7440-48-4	ND	1.0	0.50	ug/L	U	1
Copper	7440-50-8	ND	1.0	0.50	ug/L	U	1
Lead	7439-92-1	ND	1.0	0.50	ug/L	U	1
Mercury	7439-97-6	ND	0.20	0.100	ug/L	U	1
Nickel	7440-02-0	ND	1.0	0.50	ug/L	U	1
Selenium	7782-49-2	ND	1.0	0.50	ug/L	U	1
Silver	7440-22-4	ND	1.0	0.50	ug/L	U	1
Thallium	7440-28-0	ND	1.0	0.50	ug/L	U	1
Tin	7440-31-5	ND	5.0	2.5	ug/L	U	1
Vanadium	7440-62-2	ND	5.0	2.5	ug/L	U	1
Zinc	7440-66-6	ND	10	10	ug/L	U	1

Blank Summary 11091325

EA Engineering, Sparks, MD

Gude Landfill

Analytical Method: SW-846 6020 A

Prep Method: SW3010A

Matrix: **WATER**

Sample Id: **38633-1-BLK**

Lab Sample Id: **38633-1-BLK**

Date Analyzed: Sep-20-11 17:36

Analyst: 1034

Date Prep: Sep-19-11 08:05

Tech: 1034

Seq Number: 92871

Parameter	Cas Number	Result	RL	LOD	Units	Flag	Dil
Antimony	7440-36-0	ND	1.0	0.50	ug/L	U	1
Arsenic	7440-38-2	ND	1.0	0.50	ug/L	U	1
Barium	7440-39-3	ND	1.0	0.50	ug/L	U	1
Beryllium	7440-41-7	ND	1.0	0.50	ug/L	U	1
Cadmium	7440-43-9	ND	1.0	0.50	ug/L	U	1
Chromium	7440-47-3	ND	1.0	0.50	ug/L	U	1
Cobalt	7440-48-4	ND	1.0	0.50	ug/L	U	1
Copper	7440-50-8	ND	1.0	0.50	ug/L	U	1
Lead	7439-92-1	ND	1.0	0.50	ug/L	U	1
Mercury	7439-97-6	ND	0.20	0.100	ug/L	U	1
Nickel	7440-02-0	ND	1.0	0.50	ug/L	U	1
Selenium	7782-49-2	ND	1.0	0.50	ug/L	U	1
Silver	7440-22-4	ND	1.0	0.50	ug/L	U	1
Thallium	7440-28-0	ND	1.0	0.50	ug/L	U	1
Tin	7440-31-5	ND	5.0	2.5	ug/L	U	1
Vanadium	7440-62-2	ND	5.0	2.5	ug/L	U	1
Zinc	7440-66-6	ND	10	10	ug/L	U	1

Blank Summary 11091325

EA Engineering, Sparks, MD

Gude Landfill

Analytical Method: SW-846 8081 B

Prep Method: SW3510C

Matrix: **WATER**

Sample Id: **38610-1-BLK**

Lab Sample Id: **38610-1-BLK**

Date Analyzed: Sep-16-11 12:24

Analyst: 1029

Date Prep: Sep-15-11 14:30

Tech: 1016

Seq Number: 92824

Parameter	Cas Number	Result	RL	LOD	Units	Flag	Dil
alpha-BHC	319-84-6	ND	0.08	0.04	ug/L	U	1
gamma-BHC (Lindane)	58-89-9	ND	0.08	0.04	ug/L	U	1
beta-BHC	319-85-7	ND	0.08	0.04	ug/L	U	1
delta-BHC	319-86-8	ND	0.08	0.04	ug/L	U	1
Heptachlor	76-44-8	ND	0.08	0.04	ug/L	U	1
Aldrin	309-00-2	ND	0.08	0.04	ug/L	U	1
Heptachlor epoxide	1024-57-3	ND	0.08	0.04	ug/L	U	1
gamma-Chlordane	5103-74-2	ND	0.08	0.04	ug/L	U	1
alpha-Chlordane	5103-71-9	ND	0.08	0.04	ug/L	U	1
4,4-DDE	72-55-9	ND	0.08	0.04	ug/L	U	1
Endosulfan I	959-98-8	ND	0.08	0.04	ug/L	U	1
Dieldrin	60-57-1	ND	0.08	0.04	ug/L	U	1
Endrin	72-20-8	ND	0.08	0.04	ug/L	U	1
4,4-DDD	72-54-8	ND	0.08	0.04	ug/L	U	1
Endosulfan II	33213-65-9	ND	0.08	0.04	ug/L	U	1
4,4-DDT	50-29-3	ND	0.08	0.04	ug/L	U	1
Endrin aldehyde	7421-93-4	ND	0.08	0.04	ug/L	U	1
Methoxychlor	72-43-5	ND	0.08	0.04	ug/L	U	1
Endosulfan sulfate	1031-07-8	ND	0.08	0.04	ug/L	U	1
Endrin ketone	53494-70-5	ND	0.08	0.04	ug/L	U	1
Toxaphene	8001-35-2	ND	2	1.0	ug/L	U	1
Chlordane	57-74-9	ND	2	1.0	ug/L	U	1

Blank Summary 11091325

EA Engineering, Sparks, MD

Gude Landfill

Analytical Method: SW-846 8082 A
Matrix: WATER

Prep Method: SW3510C

Sample Id: 38611-1-BLK

Lab Sample Id: 38611-1-BLK

Date Analyzed: Sep-16-11 12:29

Analyst: 1029

Date Prep: Sep-15-11 14:32

Tech: 1016

Seq Number: 92817

Parameter	Cas Number	Result	RL	LOD	Units	Flag	Dil
PCB-1016	12674-11-2	ND	1.0	0.50	ug/L	U	1
PCB-1221	11104-28-2	ND	1.0	0.50	ug/L	U	1
PCB-1232	11141-16-5	ND	1.0	0.50	ug/L	U	1
PCB-1242	53469-21-9	ND	1.0	0.50	ug/L	U	1
PCB-1248	12672-29-6	ND	1.0	0.50	ug/L	U	1
PCB-1254	11097-69-1	ND	1.0	0.50	ug/L	U	1
PCB-1260	11096-82-5	ND	1.0	0.50	ug/L	U	1

Blank Summary 11091325

EA Engineering, Sparks, MD

Gude Landfill

Analytical Method: SW-846 8151 A

Prep Method: SW8151A_PREP

Matrix: WATER

Sample Id: 38594-1-BLK

Lab Sample Id: 38594-1-BLK

Date Analyzed: Sep-15-11 22:35

Analyst: 1029

Date Prep: Sep-15-11 07:01

Tech: 1028

Seq Number: 92773

Parameter	Cas Number	Result	RL	LOD	Units	Flag	Dil
2,4-D	94-75-7	ND	2	1.0	ug/L	U	1
2,4,5-TP (Silvex)	93-72-1	ND	0.2	0.10	ug/L	U	1
2,4,5-T	93-76-5	ND	0.2	0.10	ug/L	U	1
Dinoseb	88-85-7	ND	1	0.50	ug/L	U	1

Blank Summary 11091325

EA Engineering, Sparks, MD

Gude Landfill

Analytical Method: SW-846 8270 C

Prep Method: SW3510C

Matrix: **WATER**

Sample Id: **38599-1-BLK**

Lab Sample Id: **38599-1-BLK**

Date Analyzed: Sep-15-11 13:07

Analyst: 1014

Date Prep: Sep-15-11 09:26

Tech: 1022

Seq Number: 92821

Parameter	Cas Number	Result	RL	LOD	Units	Flag	Dil
Acenaphthene	83-32-9	ND	5	2.5	ug/L	U	1
Acenaphthylene	208-96-8	ND	5	2.5	ug/L	U	1
Acetophenone	98-86-2	ND	5	2.5	ug/L	U	1
Anthracene	120-12-7	ND	5	2.5	ug/L	U	1
Benzo(a)anthracene	56-55-3	ND	5	2.5	ug/L	U	1
Benzo(a)pyrene	50-32-8	ND	5	2.5	ug/L	U	1
Benzo(b)fluoranthene	205-99-2	ND	5	2.5	ug/L	U	1
Benzo(g,h,i)perylene	191-24-2	ND	5	2.5	ug/L	U	1
Benzo(k)fluoranthene	207-08-9	ND	5	2.5	ug/L	U	1
Benzyl butyl phthalate	85-68-7	ND	5	2.5	ug/L	U	1
bis(2-chloroethoxy) methane	111-91-1	ND	5	2.5	ug/L	U	1
bis(2-chloroethyl) ether	111-44-4	ND	5	2.5	ug/L	U	1
bis(2-chloroisopropyl) ether	108-60-1	ND	5	2.5	ug/L	U	1
bis(2-ethylhexyl) phthalate	117-81-7	ND	5	2.5	ug/L	U	1
4-Bromophenylphenyl ether	101-55-3	ND	5	2.5	ug/L	U	1
Di-n-butyl phthalate	84-74-2	ND	5	2.5	ug/L	U	1
4-Chloro-3-methylphenol	59-50-7	ND	5	2.5	ug/L	U	1
4-Chloroaniline	106-47-8	ND	10	5.0	ug/L	U	1
2-Chloronaphthalene	91-58-7	ND	5	2.5	ug/L	U	1
2-Chlorophenol	95-57-8	ND	5	2.5	ug/L	U	1
4-Chlorophenyl phenyl ether	7005-72-3	ND	5	2.5	ug/L	U	1
Chrysene	218-01-9	ND	5	2.5	ug/L	U	1
Dibenz(a,h)anthracene	53-70-3	ND	5	2.5	ug/L	U	1
Dibenzofuran	132-64-9	ND	5	2.5	ug/L	U	1
3,3-Dichlorobenzidine	91-94-1	ND	5	2.5	ug/L	U	1
2,4-Dichlorophenol	120-83-2	ND	5	2.5	ug/L	U	1
Diethyl phthalate	84-66-2	ND	5	2.5	ug/L	U	1
Dimethyl phthalate	131-11-3	ND	5	2.5	ug/L	U	1
2,4-Dimethylphenol	105-67-9	ND	5	2.5	ug/L	U	1
4,6-Dinitro-2-methyl phenol	534-52-1	ND	5	2.5	ug/L	U	1
2,4-Dinitrophenol	51-28-5	ND	10	5.0	ug/L	U	1
2,4-Dinitrotoluene	121-14-2	ND	5	2.5	ug/L	U	1
2,6-Dinitrotoluene	606-20-2	ND	5	2.5	ug/L	U	1
Fluoranthene	206-44-0	ND	5	2.5	ug/L	U	1
Fluorene	86-73-7	ND	5	2.5	ug/L	U	1
Hexachlorobenzene	118-74-1	ND	5	2.5	ug/L	U	1
Hexachlorobutadiene	87-68-3	ND	5	2.5	ug/L	U	1
Hexachlorocyclopentadiene	77-47-4	ND	5	2.5	ug/L	U	1
Hexachloroethane	67-72-1	ND	5	2.5	ug/L	U	1
Indeno(1,2,3-c,d)pyrene	193-39-5	ND	5	2.5	ug/L	U	1
Isophorone	78-59-1	ND	5	2.5	ug/L	U	1

Blank Summary 11091325

EA Engineering, Sparks, MD

Gude Landfill

Analytical Method: SW-846 8270 C

Prep Method: SW3510C

Matrix: **WATER**

Sample Id: **38599-1-BLK**

Lab Sample Id: **38599-1-BLK**

Date Analyzed: Sep-15-11 13:07

Analyst: 1014

Date Prep: Sep-15-11 09:26

Tech: 1022

Seq Number: 92821

Parameter	Cas Number	Result	RL	LOD	Units	Flag	Dil
2-Methylnaphthalene	91-57-6	ND	5	2.5	ug/L	U	1
2-Methylphenol	95-48-7	ND	5	2.5	ug/L	U	1
3&4-Methylphenol		ND	5	2.5	ug/L	U	1
4-Nitroaniline	100-01-6	ND	10	5.0	ug/L	U	1
3-Nitroaniline	99-09-2	ND	5	2.5	ug/L	U	1
2-Nitroaniline	88-74-4	ND	5	2.5	ug/L	U	1
Nitrobenzene	98-95-3	ND	5	2.5	ug/L	U	1
2-Nitrophenol	88-75-5	ND	5	2.5	ug/L	U	1
4-Nitrophenol	100-02-7	ND	5	2.5	ug/L	U	1
N-Nitrosodimethylamine	62-75-9	ND	5	2.5	ug/L	U	1
N-Nitrosodi-n-propylamine	621-64-7	ND	5	2.5	ug/L	U	1
N-Nitrosodiphenylamine	86-30-6	ND	5	2.5	ug/L	U	1
Di-n-octyl phthalate	117-84-0	ND	10	5.0	ug/L	U	1
Pentachlorophenol	87-86-5	ND	10	5.0	ug/L	U	1
Phenanthrene	85-01-8	ND	5	2.5	ug/L	U	1
Phenol	108-95-2	ND	5	2.5	ug/L	U	1
Pyrene	129-00-0	ND	5	2.5	ug/L	U	1
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	5	2.5	ug/L	U	1
2,3,4,6-Tetrachlorophenol	58-90-2	ND	5	2.5	ug/L	U	1
2,4,6-Trichlorophenol	88-06-2	ND	5	2.5	ug/L	U	1
2,4,5-Trichlorophenol	95-95-4	ND	5	2.5	ug/L	U	1

Sample Duplicate Recovery

Project Name: Gude Landfill

Work Order #: 11091325

Report Date: 10/11/2011

Lab Batch #: 92732

Project ID: N/A

Date Analyzed: 09/14/2011

Date Prepared: 09/14/2011

Analyst: 1044

QC- Sample ID: 11091325-002 D

Batch #: 1

Matrix: Ground Water

Reporting Units: us/cm

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Specific conductance	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Conductivity	460	465	1	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes.

Sample Duplicate Recovery

Project Name: Gude Landfill

Work Order #: 11091325

Report Date: 10/11/2011

Lab Batch #: 92734

Project ID: N/A

Date Analyzed: 09/14/2011

Date Prepared: 09/14/2011

Analyst: 1044

QC- Sample ID: 11091325-002 D

Batch #: 1

Matrix: Ground Water

Reporting Units: S.U.

SAMPLE / SAMPLE DUPLICATE RECOVERY					
pH, Electrometric	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
pH	5.700	5.700	0	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes.

Form 3 - MS Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Report Date: 10/11/2011

Lab Batch #: 92755

Project ID: N/A

Date Analyzed: 09/14/2011

Date Prepared: 09/14/2011

Analyst: 1035

QC- Sample ID: 11091325-002 S

Batch #: 1

Matrix: Ground Water

Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	75.27	50.00	119.3	88	80-120	
Nitrate (as N)	0.2040	5.000	4.887	94	80-120	
Sulfate	52.20	50.00	96.93	89	80-120	

Lab Batch #: 92755

Date Analyzed: 09/14/2011

Date Prepared: 09/14/2011

Analyst: 1035

QC- Sample ID: 11091326-003 S

Batch #: 1

Matrix: Ground Water

Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	122.1	50.00	163.1	82	80-120	
Nitrate (as N)	1.359	5.000	6.583	104	80-120	
Sulfate	253.1	50.00	279.7	53	80-120	X

Matrix Spike Percent Recovery [D] = $100 \cdot (C-A)/B$

Relative Percent Difference [E] = $200 \cdot (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Client Sample Id: CS19C-13-W-1 S

Project ID: N/A

Prep Batch #: 38634

Date Prepared: 09/19/2011

Sample ID: 11091518-001 S

Analyst: 1034

Lab Batch ID: 92865

Date Analyzed: 09/20/2011

Method: SW3010A /SW6020

Matrix: Ground Water

Reporting Units: ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Dissolved Metals Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Antimony	<0.5000	40.00	40.70	102	40.00	38.77	97	5	75-125	25	
Arsenic	<0.5000	40.00	37.92	95	40.00	37.70	94	1	75-125	25	
Barium	109.7	40.00	148.5	97	40.00	142.9	83	16	75-125	25	
Beryllium	<0.5000	40.00	43.80	110	40.00	42.19	105	5	75-125	25	
Cadmium	<0.5000	40.00	40.34	101	40.00	38.64	97	4	75-125	25	
Chromium	<0.5000	40.00	39.62	99	40.00	38.63	97	2	75-125	25	
Cobalt	<0.5000	40.00	42.47	106	40.00	41.26	103	3	75-125	25	
Copper	<0.5000	40.00	39.64	99	40.00	39.18	98	1	75-125	25	
Lead	<0.5000	40.00	40.20	101	40.00	38.38	96	5	75-125	25	
Mercury	<0.1000	1.000	0.8400	84	1.000	0.7900	79	6	75-125	25	
Nickel	<0.5000	40.00	39.73	99	40.00	39.21	98	1	75-125	25	
Selenium	<0.5000	40.00	28.06	70	40.00	28.24	71	1	75-125	25	X
Silver	<0.5000	40.00	35.45	89	40.00	32.58	81	9	75-125	25	
Thallium	<0.5000	40.00	38.42	96	40.00	36.76	92	4	75-125	25	
Tin	<2.500	40.00	40.43	101	40.00	38.63	97	4	75-125	25	
Vanadium	<2.500	40.00	39.99	100	40.00	38.55	96	4	75-125	25	
Zinc	<10.00	40.00	39.41	99	40.00	39.02	98	1	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

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Baltimore, MD 21228

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

XF = Recovery of MS, MSD or both outside of QC Criteria and RPD exceeded the laboratory control limits.

Form 3 - MS / MSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Client Sample Id: TGW-09-091311 S

Project ID: N/A

Prep Batch #: 38633

Date Prepared: 09/19/2011

Sample ID: 11091325-005 S

Analyst: 1034

Lab Batch ID: 92871

Date Analyzed: 09/20/2011

Method: SW3010A /SW6020

Matrix: Ground Water

Reporting Units: ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Total Metals plus Hardness Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Antimony	<0.5000	40.00	38.35	96	40.00	35.55	89	8	75-125	25	
Arsenic	2.660	40.00	36.88	86	40.00	35.92	83	4	75-125	25	
Barium	59.28	40.00	100.2	102	40.00	127.3	170	50	75-125	25	XF
Beryllium	1.080	40.00	49.50	121	40.00	46.99	115	5	75-125	25	
Cadmium	4.960	40.00	43.72	97	40.00	43.33	96	1	75-125	25	
Chromium	23.46	40.00	63.39	100	40.00	75.39	130	26	75-125	25	XF
Cobalt	25.35	40.00	69.28	110	40.00	71.80	116	5	75-125	25	
Copper	24.74	40.00	62.49	94	40.00	65.40	102	8	75-125	25	
Lead	5.000	40.00	47.75	107	40.00	50.04	113	5	75-125	25	
Mercury	<0.1000	1.000	1.010	101	1.000	1.010	101	0	75-125	25	
Nickel	12.93	40.00	52.10	98	40.00	55.95	108	10	75-125	25	
Selenium	<0.5000	40.00	31.76	79	40.00	23.73	59	29	75-125	25	XF
Silver	<0.5000	40.00	41.74	104	40.00	41.16	103	1	75-125	25	
Thallium	<0.5000	40.00	41.48	104	40.00	39.96	100	4	75-125	25	
Tin	<2.500	40.00	41.51	104	40.00	41.96	105	1	75-125	25	
Vanadium	50.82	40.00	89.77	97	40.00	104.8	135	33	75-125	25	XF
Zinc	72.06	40.00	104.4	81	40.00	111	97	18	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

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Baltimore, MD 21228

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

XF = Recovery of MS, MSD or both outside of QC Criteria and RPD exceeded the laboratory control limits.

Blank Spike Recovery

Project Name: Gude Landfill

Work Order #: 11091325

Project ID: N/A

Prep Batch #: 38634

Date Prepared: 09/19/2011

Sample ID: 38634-1-BKS

Matrix: Water

Lab Batch ID: 92865

Date Analyzed: 09/20/2011

Analyst: 1034

Reporting Units: ug/L

BLANK /BLANK SPIKE RECOVERY STUDY

Dissolved Metals Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Antimony	<0.5000	40.00	41.32	103	80-120	
Arsenic	<0.5000	40.00	41.07	103	80-120	
Barium	<0.5000	40.00	40.27	101	80-120	
Beryllium	<0.5000	40.00	44.86	112	80-120	
Cadmium	<0.5000	40.00	41.11	103	80-120	
Chromium	<0.5000	40.00	40.76	102	80-120	
Cobalt	<0.5000	40.00	44.44	111	80-120	
Copper	<0.5000	40.00	40.61	102	80-120	
Lead	<0.5000	40.00	40.15	100	80-120	
Mercury	<0.1000	1.000	1.050	105	80-120	
Nickel	<0.5000	40.00	41.36	103	80-120	
Selenium	<0.5000	40.00	32.50	81	80-120	
Silver	<0.5000	40.00	39.83	100	80-120	
Thallium	<0.5000	40.00	39.80	100	80-120	
Tin	<2.500	40.00	40.79	102	80-120	
Vanadium	<2.500	40.00	40.07	100	80-120	
Zinc	<10.00	40.00	39.58	99	80-120	

Blank Spike Recovery [D] = 100*(([C]-[A])/[B])

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

H= Recovery of BS,BSD or both exceeded the laboratory control limits
 F = RPD exceeded the laboratory control limits
 L = Recovery of BS,BSD or both below the laboratory control limits

Blank Spike Recovery

Project Name: Gude Landfill

Work Order #: 11091325

Project ID: N/A

Prep Batch #: 38633

Date Prepared: 09/19/2011

Sample ID: 38633-1-BKS

Matrix: Water

Lab Batch ID: 92871

Date Analyzed: 09/20/2011

Analyst: 1034

Reporting Units: ug/L

BLANK /BLANK SPIKE RECOVERY STUDY

Total Metals plus Hardness Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Antimony	<0.5000	40.00	41.18	103	80-120	
Arsenic	<0.5000	40.00	35.74	89	80-120	
Barium	<0.5000	40.00	41.93	105	80-120	
Beryllium	<0.5000	40.00	48.16	120	80-120	
Cadmium	<0.5000	40.00	40.05	100	80-120	
Chromium	<0.5000	40.00	40.85	102	80-120	
Cobalt	<0.5000	40.00	46.53	116	80-120	
Copper	<0.5000	40.00	40.23	101	80-120	
Lead	<0.5000	40.00	43.37	108	80-120	
Mercury	<0.1000	1.000	0.8900	89	80-120	
Nickel	<0.5000	40.00	40.63	102	80-120	
Selenium	<0.5000	40.00	31.99	80	80-120	
Silver	<0.5000	40.00	42.85	107	80-120	
Thallium	<0.5000	40.00	41.91	105	80-120	
Tin	<2.500	40.00	44.08	110	80-120	
Vanadium	<2.500	40.00	40.26	101	80-120	
Zinc	<10.00	40.00	32.36	81	80-120	

Blank Spike Recovery [D] = 100*(([C]-[A])/[B])

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6630 Baltimore National Pike
Baltimore, MD 21228

H= Recovery of BS,BSD or both exceeded the laboratory control limits
 F = RPD exceeded the laboratory control limits
 L = Recovery of BS,BSD or both below the laboratory control limits

LCS/LCSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Project ID: N/A

Prep Batch #: 1

Date Prepared: 09/14/2011

Sample: 38601-1-BKS

Analyst: 1035

Lab Batch ID: 92755

Date Analyzed: 09/14/2011

Method: E300.0P / E300.0

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Chloride, Sulfate, Nitrate Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.1000	50.00	50.26	101	50.00	50.88	102	1	90-110	20	
Nitrate (as N)	<0.0500	5.000	5.199	104	5.000	5.248	105	1	90-110	20	
Sulfate	<0.1000	50.00	51.22	102	50.00	52.11	104	2	90-110	20	

Relative Percent Difference RPD = $200 * |(D-G)/(D+G)|$

Laboratory Control Sample (LCS) Percent Recovery [D] = $100 * (C)/[B]$

Laboratory Control Sample Duplicate (LCSD) Percent Recovery [G] = $100 * (F)/[E]$

**Phase Separation Science, Inc.
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Baltimore, MD 21228**

H= Recovery of BS,BSD or both exceeded the laboratory control limits

F = RPD exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

LCS/LCSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Project ID: N/A

Prep Batch #: 1

Date Prepared: 09/15/2011

Sample: 38610-1-BKS

Analyst: 1029

Lab Batch ID: 92824

Date Analyzed: 09/16/2011

Method: SW3510C / SW8081B

Matrix: Water

Units: ug/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Organochlorine Pesticides	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
alpha-BHC	<0.0400	0.2000	0.1811	91	0.2000	0.1855	93	2	60-127	20	
gamma-BHC (Lindane)	<0.0400	0.2000	0.1835	92	0.2000	0.1873	94	2	60-126	20	
beta-BHC	<0.0400	0.2000	0.1735	87	0.2000	0.1762	88	1	60-119	20	
delta-BHC	<0.0400	0.2000	0.1874	94	0.2000	0.1902	95	1	60-131	20	
Heptachlor	<0.0400	0.2000	0.1729	86	0.2000	0.1799	90	5	58-134	20	
Aldrin	<0.0400	0.2000	0.1907	95	0.2000	0.1952	98	3	61-126	20	
Heptachlor epoxide	<0.0400	0.2000	0.1907	95	0.2000	0.1933	97	2	62-123	20	
gamma-Chlordane	<0.0400	0.2000	0.1940	97	0.2000	0.1975	99	2	63-135	20	
alpha-Chlordane	<0.0400	0.2000	0.1969	98	0.2000	0.2005	100	2	66-126	20	
4,4-DDE	<0.0400	0.2000	0.2134	107	0.2000	0.2182	109	2	61-135	20	
Endosulfan I	<0.0400	0.2000	0.2016	101	0.2000	0.2042	102	1	65-130	20	
Dieldrin	<0.0400	0.2000	0.2108	105	0.2000	0.2132	107	2	66-132	20	
Endrin	<0.0400	0.2000	0.1710	86	0.2000	0.1810	91	6	66-131	20	
4,4-DDD	<0.0400	0.2000	0.2167	108	0.2000	0.2180	109	1	59-141	20	
Endosulfan II	<0.0400	0.2000	0.2132	107	0.2000	0.2152	108	1	66-130	20	
4,4-DDT	<0.0400	0.2000	0.1864	93	0.2000	0.1968	98	5	54-138	20	
Endrin aldehyde	<0.0400	0.2000	0.2397	120	0.2000	0.2438	122	2	67-138	20	
Methoxychlor	<0.0400	0.2000	0.1687	84	0.2000	0.1770	89	6	54-129	20	
Endosulfan sulfate	<0.0400	0.2000	0.2005	100	0.2000	0.2040	102	2	66-131	20	
Endrin ketone	<0.0400	0.2000	0.2264	113	0.2000	0.2268	113	0	62-139	20	

Relative Percent Difference RPD = 200*|(D-G)/(D+G)|

Laboratory Control Sample (LCS) Percent Recovery [D] = 100*(C)/[B]

Laboratory Control Sample Duplicate (LCSD) Percent Recovery [G] = 100*(F)/[E]

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Baltimore, MD 21228**

H= Recovery of BS,BSD or both exceeded the laboratory control limits

F = RPD exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

LCS/LCSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Project ID: N/A

Prep Batch #: 1

Date Prepared: 09/15/2011

Sample: 38611-1-BKS

Analyst: 1029

Lab Batch ID: 92817

Date Analyzed: 09/16/2011

Method: SW3510C / SW8082

Matrix: Water

Units: ug/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Polychlorinated Biphenyls Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
PCB-1016	<0.50	5.0	4.2	84	5.0	4.4	88	5	69-106	20	
PCB-1260	<0.50	5.0	4.1	82	5.0	4.4	88	7	72-113	20	

Relative Percent Difference RPD = $200 * |(D-G)/(D+G)|$

Laboratory Control Sample (LCS) Percent Recovery [D] = $100 * (C)/[B]$

Laboratory Control Sample Duplicate (LCSD) Percent Recovery [G] = $100 * (F)/[E]$

**Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228**

H= Recovery of BS,BSD or both exceeded the laboratory control limits

F = RPD exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

LCS/LCSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Project ID: N/A

Prep Batch #: 1

Date Prepared: 09/15/2011

Sample: 38594-1-BKS

Analyst: 1029

Lab Batch ID: 92773

Date Analyzed: 09/15/2011

Method: SW8151A_PREP / SW8151A

Matrix: Water

Units: ug/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Chlorinated Herbicides Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
2,4-D	<1.000	10.00	10.16	102	10.00	10.25	103	1	53-105	20	
2,4,5-TP (Silvex)	<0.1000	1.000	0.9250	93	1.000	0.9290	93	0	52-106	20	
2,4,5-T	<0.1000	1.000	1.028	103	1.000	1.034	103	0	53-128	20	
Dinoseb	<0.5000	5.000	4.380	88	5.000	4.459	89	1	46-94	20	

Relative Percent Difference RPD = $200 * |(D-G)/(D+G)|$

Laboratory Control Sample (LCS) Percent Recovery [D] = $100 * (C)/[B]$

Laboratory Control Sample Duplicate (LCSD) Percent Recovery [G] = $100 * (F)/[E]$

**Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228**

H= Recovery of BS,BSD or both exceeded the laboratory control limits

F = RPD exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

LCS/LCSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Project ID: N/A

Prep Batch #: 1

Date Prepared: 09/15/2011

Sample: 38599-1-BKS

Analyst: 1014

Lab Batch ID: 92821

Date Analyzed: 09/15/2011

Method: SW3510C / SW8270C

Matrix: Water

Units: ug/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Semivolatile Organic Compounds	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Acenaphthene	<2.500	40.00	39.79	99	40.00	39.36	98	1	78-120	20	
Acenaphthylene	<2.500	40.00	39.17	98	40.00	38.94	97	1	77-120	20	
Acetophenone	<2.500	40.00	48.52	121	40.00	45.32	113	7	81-126	20	
Anthracene	<2.500	40.00	41.27	103	40.00	39.48	99	4	81-120	20	
Benzo(a)anthracene	<2.500	40.00	40.40	101	40.00	39.20	98	3	80-121	20	
Benzo(a)pyrene	<2.500	40.00	42.59	106	40.00	40.62	102	4	80-132	20	
Benzo(b)fluoranthene	<2.500	40.00	42.69	107	40.00	38.26	96	11	72-138	20	
Benzo(g,h,i)perylene	<2.500	40.00	39.47	99	40.00	42.59	106	7	59-141	20	
Benzo(k)fluoranthene	<2.500	40.00	39.59	99	40.00	38.92	97	2	74-137	20	
Benzyl butyl phthalate	<2.500	40.00	40.49	101	40.00	38.91	97	4	74-146	20	
bis(2-chloroethoxy) methane	<2.500	40.00	41.12	103	40.00	39.60	99	4	64-112	20	
bis(2-chloroethyl) ether	<2.500	40.00	39.97	100	40.00	38.94	97	3	64-113	20	
bis(2-chloroisopropyl) ether	<2.500	40.00	39.90	100	40.00	37.60	94	6	61-115	20	
bis(2-ethylhexyl) phthalate	<2.500	40.00	40.36	101	40.00	38.04	95	6	78-140	20	
4-Bromophenylphenyl ether	<2.500	40.00	42.77	107	40.00	40.54	101	6	59-119	20	
Di-n-butyl phthalate	<2.500	40.00	42.16	105	40.00	40.35	101	4	82-132	20	
4-Chloro-3-methylphenol	<2.500	40.00	42.39	106	40.00	39.95	100	6	81-121	20	
4-Chloroaniline	<5.000	40.00	41.54	104	40.00	39.84	100	4	77-116	20	
2-Chloronaphthalene	<2.500	40.00	40.21	101	40.00	39.63	99	2	76-118	20	
2-Chlorophenol	<2.500	40.00	36.36	91	40.00	35.57	89	2	76-122	20	

Relative Percent Difference RPD = 200*|(D-G)/(D+G)|

Laboratory Control Sample (LCS) Percent Recovery [D] = 100*(C)/[B]

Laboratory Control Sample Duplicate (LCSD) Percent Recovery [G] = 100*(F)/[E]

**Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228**

H= Recovery of BS,BSD or both exceeded the laboratory control limits

F = RPD exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

LCS/LCSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Project ID: N/A

Prep Batch #: 1

Date Prepared: 09/15/2011

Sample: 38599-1-BKS

Analyst: 1014

Lab Batch ID: 92821

Date Analyzed: 09/15/2011

Method: SW3510C / SW8270C

Matrix: Water

Units: ug/L

Semivolatile Organic Compounds	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
4-Chlorophenyl phenyl ether	<2.500	40.00	39.67	99	40.00	37.92	95	4	60-117	20	
Chrysene	<2.500	40.00	39.30	98	40.00	38.54	96	2	77-123	20	
Dibenz(a,h)anthracene	<2.500	40.00	40.90	102	40.00	41.82	105	3	71-134	20	
Dibenzofuran	<2.500	40.00	44.92	112	40.00	44.51	111	1	80-124	20	
3,3-Dichlorobenzidine	<2.500	40.00	47.74	119	40.00	49.27	123	3	51-143	20	
2,4-Dichlorophenol	<2.500	40.00	41.40	104	40.00	39.19	98	6	80-120	20	
Diethyl phthalate	<2.500	40.00	40.46	101	40.00	38.83	97	4	76-141	20	
Dimethyl phthalate	<2.500	40.00	40.19	100	40.00	39.91	100	0	82-129	20	
2,4-Dimethylphenol	<2.500	40.00	39.75	99	40.00	38.77	97	2	77-126	20	
4,6-Dinitro-2-methyl phenol	<2.500	40.00	39.17	98	40.00	35.87	90	9	64-124	20	
2,4-Dinitrophenol	<5.000	40.00	36.26	91	40.00	32.22	81	12	50-120	20	
2,4-Dinitrotoluene	<2.500	40.00	44.26	111	40.00	41.96	105	6	75-126	20	
2,6-Dinitrotoluene	<2.500	40.00	44.26	111	40.00	41.96	105	6	73-128	20	
Fluoranthene	<2.500	40.00	41.76	104	40.00	38.96	97	7	77-129	20	
Fluorene	<2.500	40.00	39.66	99	40.00	38.81	97	2	76-125	20	
Hexachlorobenzene	<2.500	40.00	37.41	94	40.00	35.32	88	7	73-123	20	
Hexachlorobutadiene	<2.500	40.00	43.46	109	40.00	43.19	108	1	78-123	20	
Hexachlorocyclopentadiene	<2.500	40.00	41.91	105	40.00	41.49	104	1	61-137	20	
Hexachloroethane	<2.500	40.00	38.80	97	40.00	38.22	96	1	81-123	20	
Indeno(1,2,3-c,d)pyrene	<2.500	40.00	42.16	105	40.00	42.69	107	2	62-140	20	

Relative Percent Difference RPD = $200 * |(D-G)/(D+G)|$

Laboratory Control Sample (LCS) Percent Recovery [D] = $100 * (C)/[B]$

Laboratory Control Sample Duplicate (LCSD) Percent Recovery [G] = $100 * (F)/[E]$

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

H= Recovery of BS,BSD or both exceeded the laboratory control limits

F = RPD exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

LCS/LCSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Prep Batch #: 1

Lab Batch ID: 92821

Units: ug/L

Date Prepared: 09/15/2011

Date Analyzed: 09/15/2011

Sample: 38599-1-BKS

Method: SW3510C / SW8270C

Project ID: N/A

Analyst: 1014

Matrix: Water

Semivolatile Organic Compounds Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Isophorone	<2.500	40.00	42.16	105	40.00	41.22	103	2	78-119	20	
2-Methylnaphthalene	<2.500	40.00	41.15	103	40.00	39.54	99	4	77-122	20	
2-Methylphenol	<2.500	40.00	38.88	97	40.00	37.55	94	3	76-125	20	
3&4-Methylphenol	<2.500	40.00	38.89	97	40.00	36.94	92	5	75-123	20	
4-Nitroaniline	<5.000	40.00	39.68	99	40.00	32.42	81	20	65-134	20	
3-Nitroaniline	<2.500	40.00	43.03	108	40.00	39.56	99	9	73-124	20	
2-Nitroaniline	<2.500	40.00	42.55	106	40.00	41.52	104	2	76-127	20	
Nitrobenzene	<2.500	40.00	41.39	103	40.00	41.81	105	2	82-119	20	
2-Nitrophenol	<2.500	40.00	41.17	103	40.00	41.03	103	0	77-123	20	
4-Nitrophenol	<2.500	40.00	44.07	110	40.00	40.46	101	9	71-126	20	
N-Nitrosodimethylamine	<2.500	40.00	40.11	100	40.00	38.91	97	3	73-139	20	
N-Nitrosodi-n-propylamine	<2.500	40.00	39.90	100	40.00	37.91	95	5	74-125	20	
N-Nitrosodiphenylamine	<2.500	40.00	40.56	101	40.00	40.19	100	1	74-124	20	
Di-n-octyl phthalate	<5.000	40.00	34.50	86	40.00	31.07	78	10	71-151	20	
Pentachlorophenol	<5.000	40.00	41.45	104	40.00	39.53	99	5	57-137	20	
Phenanthrene	<2.500	40.00	40.40	101	40.00	39.00	98	3	71-130	20	
Phenol	<2.500	40.00	39.51	99	40.00	36.95	92	7	72-115	20	
Pyrene	<2.500	40.00	37.96	95	40.00	37.16	93	2	67-138	20	
1,2,4,5-Tetrachlorobenzene	<2.500	40.00	49.30	123	40.00	45.79	114	8	78-125	20	
2,3,4,6-Tetrachlorophenol	<2.500	40.00	47.74	119	40.00	45.15	113	5	71-132	20	

Relative Percent Difference RPD = 200*|(D-G)/(D+G)|

Laboratory Control Sample (LCS) Percent Recovery [D] = 100*(C)/[B]

Laboratory Control Sample Duplicate (LCSD) Percent Recovery [G] = 100*(F)/[E]

**Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228**

H= Recovery of BS,BSD or both exceeded the laboratory control limits

F = RPD exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

LCS/LCSD Recoveries

Project Name: Gude Landfill

Work Order #: 11091325

Prep Batch #: 1

Lab Batch ID: 92821

Units: ug/L

Date Prepared: 09/15/2011

Date Analyzed: 09/15/2011

Sample: 38599-1-BKS

Method: SW3510C / SW8270C

Project ID: N/A

Analyst: 1014

Matrix: Water

Semivolatile Organic Compounds	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
2,4,6-Trichlorophenol	<2.500	40.00	37.09	93	40.00	36.64	92	1	78-124	20	
2,4,5-Trichlorophenol	<2.500	40.00	37.67	94	40.00	36.72	92	2	79-123	20	

Relative Percent Difference RPD = $200 * |(D-G)/(D+G)|$

Laboratory Control Sample (LCS) Percent Recovery [D] = $100 * (C)/[B]$

Laboratory Control Sample Duplicate (LCSD) Percent Recovery [G] = $100 * (F)/[E]$

**Phase Separation Science, Inc.
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H = Recovery of BS, BSD or both exceeded the laboratory control limits

F = RPD exceeded the laboratory control limits

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-3937-1

Client Project/Site: GUDE Landfill

For:

Phase Separation Sciences

6630 Baltimore National Pike

Route 40 West

Baltimore, Maryland 21228

Attn: Ms. Betsy Orr



Authorized for release by:

10/10/2011 03:26:48 PM

Whitney Ritari

Project Manager I

whitney.ritari@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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.



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Case Narrative

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3937-1

Job ID: 180-3937-1

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative
180-3937-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC Semi VOA

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.



Definitions/Glossary

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3937-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Phase Separation Sciences
 Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3937-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	ACLASS	DoD ELAP		ADE-1422
TestAmerica Pittsburgh	Arkansas	State Program	6	88-0690
TestAmerica Pittsburgh	California	NELAC	9	4224CA
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAC	4	E871008
TestAmerica Pittsburgh	Illinois	NELAC	5	002602
TestAmerica Pittsburgh	Kansas	NELAC	7	E-10350
TestAmerica Pittsburgh	Louisiana	NELAC	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAC	1	203011
TestAmerica Pittsburgh	New Jersey	NELAC	2	PA005
TestAmerica Pittsburgh	New York	NELAC	2	11182
TestAmerica Pittsburgh	North Carolina	North Carolina DENR	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAC	3	02-00416
TestAmerica Pittsburgh	Pennsylvania	State Program	3	02-416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014002
TestAmerica Pittsburgh	USDA	USDA		P-Soil-01
TestAmerica Pittsburgh	USDA	USDA		P330-10-00139
TestAmerica Pittsburgh	Utah	NELAC	8	STLP
TestAmerica Pittsburgh	Virginia	NELAC	3	460189
TestAmerica Pittsburgh	West Virginia	West Virginia DEP	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



Sample Summary

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3937-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-3937-1	11091325-03	Water	09/13/11 12:00	09/15/11 10:00

1

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Method Summary

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3937-1

Method	Method Description	Protocol	Laboratory
8141A	Organophosphorous Pesticides (GC)	SW846	TAL PIT

Protocol References:

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

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Client Sample Results

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3937-1

Client Sample ID: 11091325-03

Lab Sample ID: 180-3937-1

Date Collected: 09/13/11 12:00

Matrix: Water

Date Received: 09/15/11 10:00

Method: 8141A - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.0	0.12	ug/L		09/19/11 12:45	09/21/11 16:41	1
Disulfoton	ND		1.0	0.10	ug/L		09/19/11 12:45	09/21/11 16:41	1
Famphur	ND		1.0	0.13	ug/L		09/19/11 12:45	09/21/11 16:41	1
Methyl parathion	ND		1.0	0.11	ug/L		09/19/11 12:45	09/21/11 16:41	1
Ethyl Parathion	ND		1.0	0.16	ug/L		09/19/11 12:45	09/21/11 16:41	1
Phorate	ND		1.0	0.093	ug/L		09/19/11 12:45	09/21/11 16:41	1
Zinophos	ND		1.0	0.10	ug/L		09/19/11 12:45	09/21/11 16:41	1

QC Sample Results

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3937-1

Method: 8141A - Organophosphorous Pesticides (GC)

Lab Sample ID: MB 180-14545/1-A
Matrix: Water
Analysis Batch: 14908

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14545

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		1.0	0.12	ug/L		09/19/11 12:45	09/21/11 17:35	1
Disulfoton	ND		1.0	0.10	ug/L		09/19/11 12:45	09/21/11 17:35	1
Famphur	ND		1.0	0.12	ug/L		09/19/11 12:45	09/21/11 17:35	1
Methyl parathion	ND		1.0	0.11	ug/L		09/19/11 12:45	09/21/11 17:35	1
Ethyl Parathion	ND		1.0	0.16	ug/L		09/19/11 12:45	09/21/11 17:35	1
Phorate	ND		1.0	0.092	ug/L		09/19/11 12:45	09/21/11 17:35	1
Zinophos	ND		1.0	0.10	ug/L		09/19/11 12:45	09/21/11 17:35	1

Lab Sample ID: LCS 180-14545/2-A
Matrix: Water
Analysis Batch: 14908

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14545

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Dimethoate	10.0	11.8		ug/L		118	26 - 136
Disulfoton	10.0	10.7		ug/L		107	45 - 124
Famphur	10.0	11.8		ug/L		118	52 - 131
Methyl parathion	10.0	10.6		ug/L		106	41 - 148
Ethyl Parathion	10.0	10.2		ug/L		102	56 - 125
Phorate	10.0	13.1		ug/L		131	41 - 135
Zinophos	10.0	9.45		ug/L		95	44 - 128

Lab Sample ID: LCSD 180-14545/3-A
Matrix: Water
Analysis Batch: 14908

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14545

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Dimethoate	10.0	11.4		ug/L		114	26 - 136	3	22
Disulfoton	10.0	10.4		ug/L		104	45 - 124	2	30
Famphur	10.0	11.5		ug/L		115	52 - 131	3	24
Methyl parathion	10.0	10.2		ug/L		102	41 - 148	4	30
Ethyl Parathion	10.0	9.98		ug/L		100	56 - 125	2	21
Phorate	10.0	12.8		ug/L		128	41 - 135	3	24
Zinophos	10.0	9.26		ug/L		93	44 - 128	2	21

QC Association Summary

Client: Phase Separation Sciences
Project/Site: GUDE Landfill

TestAmerica Job ID: 180-3937-1

GC Semi VOA

Prep Batch: 14545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-3937-1	11091325-03	Total/NA	Water	3510C	
LCS 180-14545/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 180-14545/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 180-14545/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 14908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-3937-1	11091325-03	Total/NA	Water	8141A	14545
LCS 180-14545/2-A	Lab Control Sample	Total/NA	Water	8141A	14545
LCSD 180-14545/3-A	Lab Control Sample Dup	Total/NA	Water	8141A	14545
MB 180-14545/1-A	Method Blank	Total/NA	Water	8141A	14545

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- 10
- 11
- 12

6.2



Chain of Custody Form for Subcontracted Analyses

Page 1 of 1

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

W.O. No.: **11091325**
P.O. No.:
Project Name: **Gude Landfill**
Project Number: **N/A**

Samples Transferred To:
Test America
5710 Executive Drive, Suite 106
Catonsville, MD 21228

For Questions or issues please contact: John Slowikowski

Report Due On: **09/20/11 05:00**

Contact: Ken Ives
Phone: 410-869-0085

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
11091325-003	TGW-07-091311	09/13/11	12:00	Water	Organophosphorus Compounds	SW8141A	32 OZ N/M G.A.	COOL

Data Deliverables Required: COA

Perform Q.C. on Sample :

Send Report Attn : reporting@phaseonline.com

Send Invoice Attn : invoicing@phaseonline.com

Airbill No.:

Carrier:

Condition Upon Receipt:

Comments:

Samples Relinquished By: SMD Date: 9/14/11 Time: 1600 Samples Received By: Paul Skowron

Samples Relinquished By: Paul Skowron Date: 9/19/11 Time: 1600 Samples Received By: Paul Skowron

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: Ken Ives

Sub-Contractor
Test America
Method
SW8141A

Matrix
Water
Analyte Name

- Dimethoate
- Disulfoton
- Famphur
- Parathion, Ethyl
- Parathion, Methyl
- Phorate
- Zinophos

From: (410) 869-0085
Ken Ives
STL BALTIMORE
5710 Executive Drive
Suite 106
Baltimore, MD 21228

Origin ID: MTNA



J11201104290225

Ship Date: 14SEP11
ActWgt: 13.0 LB
CAD: 1030460/INET3180

Delivery Address Bar Code



SHIP TO: (412) 963-7058

BILL RECIPIENT

Test America Pittsburgh
Test America Pittsburgh
301 ALPHA DR
RIDC PARK
PITTSBURGH, PA 15238

Ref # Phase
Invoice #
PO #
Dept #

THU - 15 SEP A2
STANDARD OVERNIGHT

TRK# 7951 8743 3327

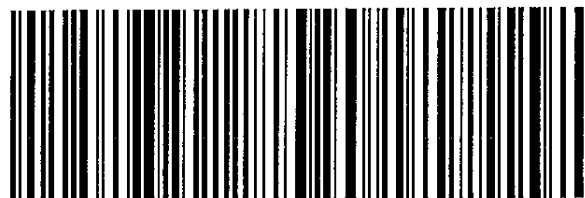
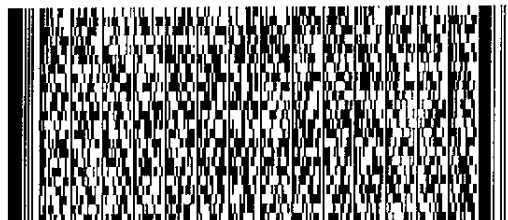
0201

15238

PA-US

PIT

NA AGCA



50FG2/4299/F5F4

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Login Sample Receipt Checklist

Client: Phase Separation Sciences

Job Number: 180-3937-1

Login Number: 3937

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Gamber, Tom

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	11091325	Received By	Sara Dorr
Client Name	EA Engineering	Date Received	09/13/2011 04:00:00 PM
Project Name	Gude Landfill	Delivered By	Client
Project Number	N/A	Tracking No	Not Applicable
Disposal Date	11/12/2011	Logged In By	Sara Dorr

Shipping Container(s)

No. of Coolers	1	Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	6
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No

Documentation

COC agrees with sample labels?	Yes
Chain of Custody	Yes

Sampler Name	<u>Steve Wilko</u>
MD DW Cert. No.	<u>N/A</u>

Sample Container

Appropriate for Specified Analysis?	Yes
Intact?	Yes
Labeled and Labels Legible?	Yes

Custody Seal(s) Intact?	Not Applicable
Seal(s) Signed / Dated	Not Applicable

Total No. of Samples Received 8

Total No. of Containers Received 14

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Date: 09/14/2011

Sara Dorr

PM Review and Approval:

Date: 09/14/2011

Simon Crisp