

Funk, Katherine (MPCA)

From: Scott L. Vasko [svasko@gesonline.com]
Sent: Monday, April 26, 2010 4:59 PM
To: Funk, Katherine (MPCA)
Cc: Larry Feldsien
Subject: Sinclair Maplewood - Duty Officer report#110602
Attachments: 10126500_pkg.pdf, 223 Larpenteur Maplewood MN report map.pdf

Kate,

Attached are the laboratory report and site map from the recent drilling investigation at the Sinclair Maplewood site (223 E Larpenteur, Maplewood, MN). These are provided as follow-up to Duty Officer report #110602. Please call or email with any questions. Thank you.

<<10126500_pkg.pdf>> <<223 Larpenteur Maplewood MN report map.pdf>>

Scott Vasko
Project Engineer
Groundwater and Environmental Services, Inc.
1285 Corporate Center Drive Suite 120
Eagan, MN 55121
1-800-735-1077 ext 3181

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 22, 2010

Scott Vasko
Groundwater Environmental Services, Inc.
1285 Corporate Center Dr
Eagan, MN 55121

RE: Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

Dear Scott Vasko:

Enclosed are the analytical results for sample(s) received by the laboratory on April 15, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carol Davy

carol.davy@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Page 1 of 19

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CERTIFICATIONS

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

Minnesota Certification IDs

1700 Elm Street SE, Suite 200 Minneapolis, MN 55414
Alaska Certification #: UST-078
Washington Certification #: C754
Tennessee Certification #: 02818
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137

Michigan DEQ Certification #: 9909
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Wisconsin Certification #: 999407970

REPORT OF LABORATORY ANALYSIS

Page 2 of 19

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SAMPLE SUMMARY

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|------------|--------|----------------|----------------|
| 10126500001 | GP4 18-20 | Solid | 04/14/10 19:00 | 04/15/10 10:42 |
| 10126500002 | GP3 15-17 | Solid | 04/14/10 07:00 | 04/15/10 10:42 |
| 10126500003 | GP1 | Water | 04/14/10 05:50 | 04/15/10 10:42 |
| 10126500004 | GP2 12-14 | Solid | 04/14/10 18:00 | 04/15/10 10:42 |
| 10126500005 | GP3 | Water | 04/14/10 19:10 | 04/15/10 10:42 |
| 10126500006 | GP1 17-19 | Solid | 04/14/10 05:30 | 04/15/10 10:42 |
| 10126500007 | MEOH BLANK | Solid | 04/14/10 00:00 | 04/15/10 10:42 |
| 10126500008 | H2O BLANK | Water | 04/14/10 00:00 | 04/15/10 10:42 |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|-------------|------------|------------|----------|-------------------|
| 10126500001 | GP4 18-20 | WI MOD DRO | KL1 | 2 |
| | | WI MOD GRO | MJH | 7 |
| | | % Moisture | JDL | 1 |
| 10126500002 | GP3 15-17 | WI MOD DRO | KL1 | 2 |
| | | WI MOD GRO | MJH | 7 |
| | | % Moisture | JDL | 1 |
| 10126500003 | GP1 | WI MOD DRO | KL1 | 2 |
| | | WI MOD GRO | MJH | 9 |
| | | EPA 6010 | IP | 1 |
| 10126500004 | GP2 12-14 | WI MOD DRO | KL1 | 2 |
| | | WI MOD GRO | MJH | 7 |
| | | % Moisture | JDL | 1 |
| 10126500005 | GP3 | WI MOD DRO | KL1 | 2 |
| | | WI MOD GRO | MJH | 9 |
| | | EPA 6010 | IP | 1 |
| 10126500006 | GP1 17-19 | WI MOD DRO | KL1 | 2 |
| | | WI MOD GRO | MJH | 7 |
| | | % Moisture | JDL | 1 |
| 10126500007 | MEOH BLANK | WI MOD GRO | MJH | 7 |
| 10126500008 | H2O BLANK | WI MOD GRO | MJH | 9 |

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 3500824 SINCLAIR-MAPLEWOOD

Pace Project No.: 10126500

Sample: GP4 18-20 Lab ID: 10126500001 Collected: 04/14/10 19:00 Received: 04/15/10 10:42 Matrix: Solid

Results reported on a "dry-weight" basis

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|--|------------|-------|--------------|----|----------------|----------------|-----------|------|
| WIDRO GCS | | | | | | | | |
| Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | 164 mg/kg | | 10.2 | 1 | 04/16/10 14:21 | 04/19/10 19:52 | | T7 |
| n-Triacontane (S) | 85 % | | 50-150 | 1 | 04/16/10 14:21 | 04/19/10 19:52 | | |
| WIGRO GCV | | | | | | | | |
| Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | ND mg/kg | | 0.62 | 10 | 04/16/10 14:30 | 04/20/10 20:21 | 71-43-2 | |
| Ethylbenzene | 33.2 mg/kg | | 0.62 | 10 | 04/16/10 14:30 | 04/20/10 20:21 | 100-41-4 | |
| Gasoline Range Organics | 1270 mg/kg | | 62.4 | 10 | 04/16/10 14:30 | 04/20/10 20:21 | | |
| Methyl-tert-butyl ether | ND mg/kg | | 3.1 | 10 | 04/16/10 14:30 | 04/20/10 20:21 | 1634-04-4 | |
| Toluene | 9.1 mg/kg | | 0.62 | 10 | 04/16/10 14:30 | 04/20/10 20:21 | 108-88-3 | |
| Xylene (Total) | 194 mg/kg | | 1.9 | 10 | 04/16/10 14:30 | 04/20/10 20:21 | 1330-20-7 | |
| a,a,a-Trifluorotoluene (S) | 93 % | | 80-125 | 10 | 04/16/10 14:30 | 04/20/10 20:21 | 98-08-8 | |
| Dry Weight | | | | | | | | |
| Analytical Method: % Moisture | | | | | | | | |
| Percent Moisture | 19.2 % | | 0.10 | 1 | | 04/16/10 00:00 | | |

ANALYTICAL RESULTS

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

Sample: GP3 15-17 Lab ID: 10126500002 Collected: 04/14/10 07:00 Received: 04/15/10 10:42 Matrix: Solid

Results reported on a "dry-weight" basis

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|----------------------------|------------|--|--------------|----|----------------|----------------|-----------|------|
| WIDRO GCS | | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | |
| Diesel Range Organics | 426 mg/kg | | 58.1 | 10 | 04/16/10 14:21 | 04/20/10 12:19 | | T7 |
| n-Triacontane (S) | 88 % | | 50-150 | 10 | 04/16/10 14:21 | 04/20/10 12:19 | | |
| WIGRO GCV | | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | |
| Benzene | 4.9 mg/kg | | 0.58 | 10 | 04/16/10 14:30 | 04/19/10 23:31 | 71-43-2 | |
| Ethylbenzene | 26.5 mg/kg | | 0.58 | 10 | 04/16/10 14:30 | 04/19/10 23:31 | 100-41-4 | |
| Gasoline Range Organics | 1230 mg/kg | | 57.9 | 10 | 04/16/10 14:30 | 04/19/10 23:31 | | |
| Methyl-tert-butyl ether | ND mg/kg | | 2.9 | 10 | 04/16/10 14:30 | 04/19/10 23:31 | 1634-04-4 | |
| Toluene | 24.1 mg/kg | | 0.58 | 10 | 04/16/10 14:30 | 04/19/10 23:31 | 108-88-3 | |
| Xylene (Total) | 187 mg/kg | | 1.7 | 10 | 04/16/10 14:30 | 04/19/10 23:31 | 1330-20-7 | |
| a,a,a-Trifluorotoluene (S) | 89 % | | 80-125 | 10 | 04/16/10 14:30 | 04/19/10 23:31 | 98-08-8 | |
| Dry Weight | | Analytical Method: % Moisture | | | | | | |
| Percent Moisture | 15.3 % | | 0.10 | 1 | | 04/16/10 00:00 | | |

ANALYTICAL RESULTS

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

Sample: GP1 **Lab ID: 10126500003** Collected: 04/14/10 05:50 Received: 04/15/10 10:42 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|---------|--|--------------|----|----------------|----------------|-----------|-------|
| WIDRO GCS | | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | |
| Diesel Range Organics | ND | mg/L | 0.12 | 1 | 04/15/10 13:20 | 04/19/10 18:36 | | 1M,P4 |
| n-Triacontane (S) | 87 | % | 50-150 | 1 | 04/15/10 13:20 | 04/19/10 18:36 | | |
| WIGRO GCV | | Analytical Method: WI MOD GRO | | | | | | |
| Benzene | ND | ug/L | 1.0 | 1 | | 04/16/10 00:42 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 1 | | 04/16/10 00:42 | 100-41-4 | |
| Gasoline Range Organics | ND | ug/L | 100 | 1 | | 04/16/10 00:42 | | |
| Methyl-tert-butyl ether | ND | ug/L | 5.0 | 1 | | 04/16/10 00:42 | 1634-04-4 | |
| Toluene | ND | ug/L | 1.0 | 1 | | 04/16/10 00:42 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | ND | ug/L | 1.0 | 1 | | 04/16/10 00:42 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/L | 1.0 | 1 | | 04/16/10 00:42 | 108-67-8 | |
| Xylene (Total) | ND | ug/L | 3.0 | 1 | | 04/16/10 00:42 | 1330-20-7 | |
| a,a,a-Trifluorotoluene (S) | 96 | % | 80-125 | 1 | | 04/16/10 00:42 | 98-08-8 | |
| 6010 MET ICP, Dissolved | | Analytical Method: EPA 6010 Preparation Method: EPA 3010 | | | | | | |
| Lead, Dissolved | ND | ug/L | 3.0 | 1 | 04/16/10 11:37 | 04/16/10 14:02 | 7439-92-1 | |

ANALYTICAL RESULTS

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

Sample: GP2 12-14 Lab ID: 10126500004 Collected: 04/14/10 18:00 Received: 04/15/10 10:42 Matrix: Solid

Results reported on a "dry-weight" basis

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|----------------------------|----------|--|--------------|----|----------------|----------------|-----------|------|
| WIDRO GCS | | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | |
| Diesel Range Organics | ND mg/kg | | 9.7 | 1 | 04/16/10 14:21 | 04/19/10 19:59 | | |
| n-Triacontane (S) | 79 % | | 50-150 | 1 | 04/16/10 14:21 | 04/19/10 19:59 | | |
| WIGRO GCV | | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | |
| Benzene | ND mg/kg | | 0.062 | 1 | 04/16/10 14:30 | 04/19/10 19:47 | 71-43-2 | |
| Ethylbenzene | ND mg/kg | | 0.062 | 1 | 04/16/10 14:30 | 04/19/10 19:47 | 100-41-4 | |
| Gasoline Range Organics | ND mg/kg | | 6.2 | 1 | 04/16/10 14:30 | 04/19/10 19:47 | | |
| Methyl-tert-butyl ether | ND mg/kg | | 0.31 | 1 | 04/16/10 14:30 | 04/19/10 19:47 | 1634-04-4 | |
| Toluene | ND mg/kg | | 0.062 | 1 | 04/16/10 14:30 | 04/19/10 19:47 | 108-88-3 | |
| Xylene (Total) | ND mg/kg | | 0.18 | 1 | 04/16/10 14:30 | 04/19/10 19:47 | 1330-20-7 | |
| a,a,a-Trifluorotoluene (S) | 99 % | | 80-125 | 1 | 04/16/10 14:30 | 04/19/10 19:47 | 98-08-8 | |
| Dry Weight | | Analytical Method: % Moisture | | | | | | |
| Percent Moisture | 16.7 % | | 0.10 | 1 | | 04/16/10 00:00 | | |

ANALYTICAL RESULTS

Project: 3500824 SINCLAIR-MAPLEWOOD

Pace Project No.: 10126500

Sample: GP3 Lab ID: 10126500005 Collected: 04/14/10 19:10 Received: 04/15/10 10:42 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|--------------------------------|-------------|--|--------------|-----|----------------|----------------|-----------|-------|
| WIDRO GCS | | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | |
| Diesel Range Organics | 207 mg/L | | 14.9 | 100 | 04/15/10 13:20 | 04/20/10 11:53 | | 2M,P4 |
| n-Triacontane (S) | 0 % | | 50-150 | 100 | 04/15/10 13:20 | 04/20/10 11:53 | | S4 |
| WIGRO GCV | | Analytical Method: WI MOD GRO | | | | | | |
| Benzene | 21300 ug/L | | 100 | 100 | | 04/16/10 01:03 | 71-43-2 | |
| Ethylbenzene | 4570 ug/L | | 100 | 100 | | 04/16/10 01:03 | 100-41-4 | |
| Gasoline Range Organics | 109000 ug/L | | 10000 | 100 | | 04/16/10 01:03 | | |
| Methyl-tert-butyl ether | ND ug/L | | 500 | 100 | | 04/16/10 01:03 | 1634-04-4 | |
| Toluene | 22400 ug/L | | 100 | 100 | | 04/16/10 01:03 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | 4770 ug/L | | 100 | 100 | | 04/16/10 01:03 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | 1210 ug/L | | 100 | 100 | | 04/16/10 01:03 | 108-67-8 | |
| Xylene (Total) | 25700 ug/L | | 300 | 100 | | 04/16/10 01:03 | 1330-20-7 | |
| a,a,a-Trifluorotoluene (S) | 95 % | | 80-125 | 100 | | 04/16/10 01:03 | 98-08-8 | |
| 6010 MET ICP, Dissolved | | Analytical Method: EPA 6010 Preparation Method: EPA 3010 | | | | | | |
| Lead, Dissolved | 11.8 ug/L | | 3.0 | 1 | 04/16/10 11:37 | 04/16/10 14:08 | 7439-92-1 | |

ANALYTICAL RESULTS

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

Sample: GP1 17-19 Lab ID: 10126500006 Collected: 04/14/10 05:30 Received: 04/15/10 10:42 Matrix: Solid

Results reported on a "dry-weight" basis

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|----------------------------|---------|--|--------------|----|----------------|----------------|-----------|------|
| WIDRO GCS | | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | |
| Diesel Range Organics | ND | mg/kg | 6.7 | 1 | 04/16/10 14:21 | 04/19/10 20:06 | | |
| n-Triacontane (S) | 84 | % | 50-150 | 1 | 04/16/10 14:21 | 04/19/10 20:06 | | |
| WIGRO GCV | | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | |
| Benzene | ND | mg/kg | 0.060 | 1 | 04/16/10 14:30 | 04/19/10 20:10 | 71-43-2 | |
| Ethylbenzene | ND | mg/kg | 0.060 | 1 | 04/16/10 14:30 | 04/19/10 20:10 | 100-41-4 | |
| Gasoline Range Organics | ND | mg/kg | 6.0 | 1 | 04/16/10 14:30 | 04/19/10 20:10 | | |
| Methyl-tert-butyl ether | ND | mg/kg | 0.30 | 1 | 04/16/10 14:30 | 04/19/10 20:10 | 1634-04-4 | |
| Toluene | ND | mg/kg | 0.060 | 1 | 04/16/10 14:30 | 04/19/10 20:10 | 108-88-3 | |
| Xylene (Total) | ND | mg/kg | 0.18 | 1 | 04/16/10 14:30 | 04/19/10 20:10 | 1330-20-7 | |
| a,a,a-Trifluorotoluene (S) | 100 | % | 80-125 | 1 | 04/16/10 14:30 | 04/19/10 20:10 | 98-08-8 | |
| Dry Weight | | Analytical Method: % Moisture | | | | | | |
| Percent Moisture | 16.7 | % | 0.10 | 1 | | 04/16/10 00:00 | | |

ANALYTICAL RESULTS

Project: 3500824 SINCLAIR-MAPLEWOOD

Pace Project No.: 10126500

Sample: MEOH BLANK Lab ID: 10126500007 Collected: 04/14/10 00:00 Received: 04/15/10 10:42 Matrix: Solid

Results reported on a "wet-weight" basis

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|----------------------------|---------|--|--------------|----|----------------|----------------|-----------|------|
| WIGRO GCV | | Analytical Method: WI MOD.GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | |
| Benzene | ND | mg/kg | 0.050 | 1 | 04/16/10 14:30 | 04/19/10 17:11 | 71-43-2 | |
| Ethylbenzene | ND | mg/kg | 0.050 | 1 | 04/16/10 14:30 | 04/19/10 17:11 | 100-41-4 | |
| Gasoline Range Organics | ND | mg/kg | 5.0 | 1 | 04/16/10 14:30 | 04/19/10 17:11 | | |
| Methyl-tert-butyl ether | ND | mg/kg | 0.25 | 1 | 04/16/10 14:30 | 04/19/10 17:11 | 1634-04-4 | |
| Toluene | ND | mg/kg | 0.050 | 1 | 04/16/10 14:30 | 04/19/10 17:11 | 108-88-3 | |
| Xylene (Total) | ND | mg/kg | 0.15 | 1 | 04/16/10 14:30 | 04/19/10 17:11 | 1330-20-7 | |
| a,a,a-Trifluorotoluene (S) | 99 | % | 80-125 | 1 | 04/16/10 14:30 | 04/19/10 17:11 | 98-08-8 | |

ANALYTICAL RESULTS

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

| Sample: H2O BLANK | | Lab ID: 10126500008 | Collected: 04/14/10 00:00 | Received: 04/15/10 10:42 | Matrix: Water | | | |
|----------------------------|---------|-------------------------------|---------------------------|--------------------------|---------------|----------------|-----------|------|
| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| WIGRO GCV | | Analytical Method: WI MOD GRO | | | | | | |
| Benzene | ND ug/L | | 1.0 | 1 | | 04/15/10 19:19 | 71-43-2 | |
| Ethylbenzene | ND ug/L | | 1.0 | 1 | | 04/15/10 19:19 | 100-41-4 | |
| Gasoline Range Organics | ND ug/L | | 100 | 1 | | 04/15/10 19:19 | | |
| Methyl-tert-butyl ether | ND ug/L | | 5.0 | 1 | | 04/15/10 19:19 | 1634-04-4 | |
| Toluene | ND ug/L | | 1.0 | 1 | | 04/15/10 19:19 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 04/15/10 19:19 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND ug/L | | 1.0 | 1 | | 04/15/10 19:19 | 108-67-8 | |
| Xylene (Total) | ND ug/L | | 3.0 | 1 | | 04/15/10 19:19 | 1330-20-7 | |
| a,a,a-Trifluorotoluene (S) | 97 % | | 80-125 | 1 | | 04/15/10 19:19 | 98-08-8 | |

QUALITY CONTROL DATA

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

QC Batch: OEXT/12720 Analysis Method: WI MOD DRO
QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS
Associated Lab Samples: 10126500001, 10126500002, 10126500004, 10126500006

METHOD BLANK: 774675 Matrix: Solid
Associated Lab Samples: 10126500001, 10126500002, 10126500004, 10126500006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|-----------------------|-------|--------------|-----------------|----------------|------------|
| Diesel Range Organics | mg/kg | ND | 5.0 | 04/19/10 19:04 | |
| n-Triacontane (S) | % | 76 | 50-150 | 04/19/10 19:04 | |

LABORATORY CONTROL SAMPLE & LCSD: 774676 774677

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|-----------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| Diesel Range Organics | mg/kg | 80 | 69.2 | 75.9 | 86 | 95 | 70-120 | 9 | 20 | |
| n-Triacontane (S) | % | | | | 89 | 95 | 50-150 | | | |

QUALITY CONTROL DATA

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

QC Batch: OEXT/12715 Analysis Method: WI MOD DRO
QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS
Associated Lab Samples: 10126500003, 10126500005

METHOD BLANK: 774358 Matrix: Water
Associated Lab Samples: 10126500003, 10126500005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|-----------------------|-------|--------------|-----------------|----------------|------------|
| Diesel Range Organics | mg/L | 0.15 | 0.10 | 04/19/10 16:54 | C0 |
| n-Triacontane (S) | % | 89 | 50-150 | 04/19/10 16:54 | |

LABORATORY CONTROL SAMPLE & LCSD: 774359 774360

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|-----------------------|-------|-------------|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| Diesel Range Organics | mg/L | 2 | 1.9 | 2.0 | 97 | 99 | 75-115 | 1 | 20 | 2M |
| n-Triacontane (S) | % | | | | 99 | 99 | 50-150 | | | |

QUALITY CONTROL DATA

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

QC Batch: GCV/6983 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 10126500001, 10126500002, 10126500004, 10126500006, 10126500007

METHOD BLANK: 774622 Matrix: Solid
Associated Lab Samples: 10126500001, 10126500002, 10126500004, 10126500006, 10126500007

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|----------------------------|-------|--------------|-----------------|----------------|------------|
| Benzene | mg/kg | ND | 0.050 | 04/19/10 16:04 | |
| Ethylbenzene | mg/kg | ND | 0.050 | 04/19/10 16:04 | |
| Gasoline Range Organics | mg/kg | ND | 5.0 | 04/19/10 16:04 | |
| Methyl-tert-butyl ether | mg/kg | ND | 0.25 | 04/19/10 16:04 | |
| Toluene | mg/kg | ND | 0.050 | 04/19/10 16:04 | |
| Xylene (Total) | mg/kg | ND | 0.15 | 04/19/10 16:04 | |
| a,a,a-Trifluorotoluene (S) | % | 99 | 80-125 | 04/19/10 16:04 | |

| Parameter | Units | LABORATORY CONTROL SAMPLE & LCSD: 774623 774624 | | | | | | | | |
|----------------------------|-------|---|------------|-------------|-----------|------------|--------------|-----|---------|------------|
| | | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
| Benzene | mg/kg | 5 | 4.8 | 4.9 | 95 | 98 | 80-120 | 3 | 20 | |
| Ethylbenzene | mg/kg | 5 | 4.8 | 4.9 | 96 | 98 | 80-120 | 2 | 20 | |
| Gasoline Range Organics | mg/kg | 50 | 48.6 | 56.7 | 97 | 113 | 80-120 | 15 | 20 | |
| Methyl-tert-butyl ether | mg/kg | 5 | 4.7 | 4.7 | 95 | 94 | 80-120 | 1 | 20 | |
| Toluene | mg/kg | 5 | 4.8 | 4.9 | 96 | 97 | 80-120 | 1 | 20 | |
| Xylene (Total) | mg/kg | 15 | 14.7 | 15.0 | 98 | 100 | 80-120 | 2 | 20 | |
| a,a,a-Trifluorotoluene (S) | % | | | | 100 | 99 | 80-125 | | | |

QUALITY CONTROL DATA

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

QC Batch: GCV/6980 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 10126500003, 10126500005, 10126500008

METHOD BLANK: 774054 Matrix: Water
Associated Lab Samples: 10126500003, 10126500005, 10126500008

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|----------------------------|-------|--------------|-----------------|----------------|------------|
| 1,2,4-Trimethylbenzene | ug/L | ND | 1.0 | 04/15/10 17:31 | |
| 1,3,5-Trimethylbenzene | ug/L | ND | 1.0 | 04/15/10 17:31 | |
| Benzene | ug/L | ND | 1.0 | 04/15/10 17:31 | |
| Ethylbenzene | ug/L | ND | 1.0 | 04/15/10 17:31 | |
| Gasoline Range Organics | ug/L | ND | 100 | 04/15/10 17:31 | |
| Methyl-tert-butyl ether | ug/L | ND | 5.0 | 04/15/10 17:31 | |
| Toluene | ug/L | ND | 1.0 | 04/15/10 17:31 | |
| Xylene (Total) | ug/L | ND | 3.0 | 04/15/10 17:31 | |
| a,a,a-Trifluorotoluene (S) | % | 99 | 80-125 | 04/15/10 17:31 | |

| Parameter | Units | 774055 | | 774056 | | % Rec Limits | RPD | Max RPD | Qualifiers |
|----------------------------|-------|-------------|------------|-------------|-----------|--------------|-----|---------|------------|
| | | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | | | | |
| 1,2,4-Trimethylbenzene | ug/L | 100 | 111 | 107 | 111 | 80-120 | 4 | 20 | |
| 1,3,5-Trimethylbenzene | ug/L | 100 | 112 | 107 | 112 | 80-120 | 4 | 20 | |
| Benzene | ug/L | 100 | 109 | 108 | 109 | 80-120 | 1 | 20 | |
| Ethylbenzene | ug/L | 100 | 111 | 109 | 111 | 80-120 | 2 | 20 | |
| Gasoline Range Organics | ug/L | 1000 | 1070 | 1060 | 107 | 80-120 | 1 | 20 | |
| Methyl-tert-butyl ether | ug/L | 100 | 103 | 98.9 | 103 | 80-120 | 4 | 20 | |
| Toluene | ug/L | 100 | 110 | 108 | 110 | 80-120 | 2 | 20 | |
| Xylene (Total) | ug/L | 300 | 342 | 329 | 114 | 80-120 | 4 | 20 | |
| a,a,a-Trifluorotoluene (S) | % | | | | 97 | 80-125 | | | |

| Parameter | Units | 774057 | | 774058 | | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|----------------------------|-------|--------------------|----------------|-----------------|-----------|----------|-----------|--------------|--------|---------|------|
| | | 10126015002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | | | | | | |
| 1,2,4-Trimethylbenzene | ug/L | 535 | 500 | 500 | 1070 | 1020 | 108 | 97 | 50-146 | 5 | 20 |
| 1,3,5-Trimethylbenzene | ug/L | 228 | 500 | 500 | 758 | 728 | 106 | 100 | 50-148 | 4 | 20 |
| Benzene | ug/L | ND | 500 | 500 | 694 | 658 | 139 | 132 | 50-145 | 5 | 20 |
| Ethylbenzene | ug/L | 483 | 500 | 500 | 1040 | 985 | 112 | 100 | 56-138 | 6 | 20 |
| Gasoline Range Organics | ug/L | 12500 | 5000 | 5000 | 18300 | 18700 | 115 | 124 | 73-132 | 2 | 20 |
| Methyl-tert-butyl ether | ug/L | 62.1 | 500 | 500 | 324 | 324 | 52 | 52 | 50-150 | 0 | 20 |
| Toluene | ug/L | 46.3 | 500 | 500 | 601 | 575 | 111 | 106 | 66-126 | 4 | 20 |
| Xylene (Total) | ug/L | 1230 | 1500 | 1500 | 2850 | 2720 | 109 | 99 | 56-134 | 5 | 20 |
| a,a,a-Trifluorotoluene (S) | % | | | | | | 122 | 117 | 80-125 | | |

QUALITY CONTROL DATA

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

QC Batch: MPRP/19993 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 10126500003, 10126500005

METHOD BLANK: 774515 Matrix: Water
Associated Lab Samples: 10126500003, 10126500005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|-----------------|-------|--------------|-----------------|----------------|------------|
| Lead, Dissolved | ug/L | ND | 3.0 | 04/16/10 13:31 | |

LABORATORY CONTROL SAMPLE: 774516

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------------|-------|-------------|------------|-----------|--------------|------------|
| Lead, Dissolved | ug/L | 1000 | 1010 | 101 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 774517 774518

| Parameter | 10126498001 | | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|-----------------|-------------|--------|----------------|-----------------|-----------|------------|----------|-----------|--------------|-----|---------|------|
| | Units | Result | Conc. | Conc. | | | | | | | | |
| Lead, Dissolved | ug/L | ND | 1000 | 1000 | 987 | 987 | 99 | 99 | 80-120 | 0 | 30 | |

QUALITY CONTROL DATA

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

QC Batch: MPRP/19994 Analysis Method: % Moisture
QC Batch Method: % Moisture Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 10126500001, 10126500002, 10126500004, 10126500006

SAMPLE DUPLICATE: 774635

| Parameter | Units | 10126498004 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------|-------|-----------------------|---------------|-----|------------|------------|
| Percent Moisture | % | 7.0 | 7.3 | 4 | 30 | |

SAMPLE DUPLICATE: 774685

| Parameter | Units | 10126577011 Result | Dup Result | RPD | Max RPD | Qualifiers |
|------------------|-------|-----------------------|---------------|-----|------------|------------|
| Percent Moisture | % | 3.9 | 4.1 | 5 | 30 | |

QUALIFIERS

Project: 3500824 SINCLAIR-MAPLEWOOD
Pace Project No.: 10126500

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

BATCH QUALIFIERS

Batch: GCV/6983

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1M Analyte detected in method blank but was not detected in the sample.
2M Analyte was detected in the method blank. The sample had concentrations of at least ten times greater than the blank.
C0 Result confirmed by second analysis.
P4 Sample field preservation does not meet EPA or method recommendations for this analysis.
S4 Surrogate recovery not evaluated against control limits due to sample dilution.
T7 Low boiling point hydrocarbons are present in the sample.



Client Name: GES

Project # 1026500

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals Intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____ Temp Blank: Yes No _____

Thermometer Used 80344042 & 178428 Type of Ice: Wet Blue None Samples on the cooling process has begun

Cooler Temperature 4.8 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 8°C Comments: _____

Date and Initials of person examining contents: 4/5/00

| | | |
|---|--|-----|
| Chain of Custody Present: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 1. |
| Chain of Custody Filled Out: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 2. |
| Chain of Custody Relinquished: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 3. |
| Sampler Name & Signature on COC: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 4. |
| Sample Arrived within Hold Time: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 5. |
| Short Hold Time Analysis (<72hr): | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 6. |
| Rush Turn Around Time Requested: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 7. |
| Sufficient Volume: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 8. |
| Correct Containers Used: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 9. |
| -Pace Containers Used: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Containers Intact: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 10. |
| Filtered volume received for Dissolved tests | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 11. |
| Sample Labels match COC: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: | <u>wt</u> | |
| All containers needing acid/base preservation have been checked. Noncompliance are noted in 13. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Exceptions (VOA, bottom, TOC, Oil and Grease, NH-DTP (water): | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| Samples checked for dechlorination: | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | 14. |
| Headspace in VOA Vials (>8mm): | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | 15. |
| Trip Blank Present: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | 16. |
| Trip Blank Custody Seals Present | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Pace Trip Blank Lot # (if purchased): | _____ | |

HNO3 H2SO4 NaOH HCl
 Samp # PA11, GP3
 Initial when completed [Signature] Lot # of added preservative _____
medu = 020810-3
H2O = 033010-4

Client Notification/ Resolution: _____ Field Data Required? Y / N

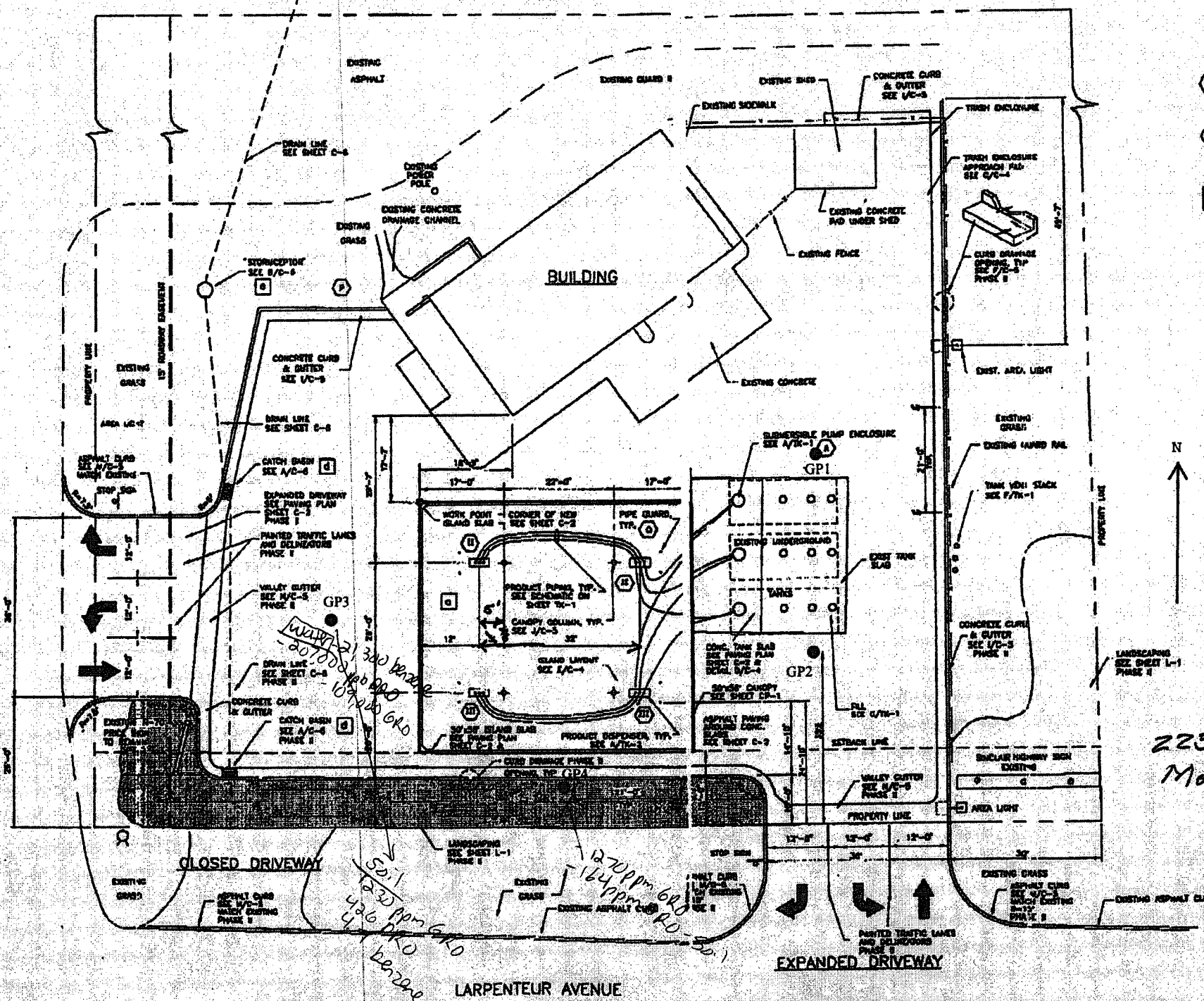
Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature] Date: 4/5/00

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina S&M, Inc. F-1213 Rev.00, 06Aug2009 1700 Elm Street SE, Suite 200, Minneapolis, MN 55414

ADOLPHUS STREET



LEGEND

- (A) MATERIAL/EQUIPMENT SUPPLIED BY SH AND INSTALLED BY CONTRACTOR
- (II) PRODUCT DISPENSER SUPPLIED BY S AND INSTALLED BY CONTRACTOR
- (d) MATERIAL/EQUIPMENT SUPPLIED AND INSTALLED BY CONTRACTOR
- SEE EQUIPMENT SCHEDULES, SHEET
- Approximate soil by location

223 E. Larpenteur
 Maplewood, MN
 22020

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