

Operation, Maintenance and Monitoring Report October 2011

**NOW Corporation
Site 3-14-008**

**Work Assignment No.
D004445-4.2**

Prepared for:

SUPERFUND STANDBY PROGRAM
New York State
Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by:

AECOM Technical Services Northeast, Inc.
40 British American Boulevard
Latham, New York 12110

February 2012

February 7, 2012

Mr. Carl Hoffman, P.E.
NYSDEC Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7013

**Re: NOW Corporation - Site #3-14-008
O&M Summary Report: "October" 2011**

Dear Mr. Hoffman:

This monthly summary report describes the operation, monitoring and maintenance (OM&M) of the remedial system at the NOW Corporation site in the Town of Clinton, New York, for a 22-day period **(September 29 – October 22, 2011)**.

With the exceptions noted below, if any, the P&T system was online and operational throughout the reporting period. Approximately 265,500 gallons of water were treated during the period. Discharge from the treatment system averaged approximately 12, 100 gallons per day (gpd), compared to 18,600 gpd in the prior reporting period.

As of the last day of the reporting period, a total of 86,759,600 gallons of groundwater had been recovered and treated by the system since it became operational in February 1998.

Table 1 summarizes influent and effluent analytical data for water samples collected on October 21, 2011. Although four VOCs were detected in system effluent, only **trichloroethene (TCE) was detected at a concentration (slightly) exceeding the effluent limitation**. A copy of the analytical laboratory report is attached. Table 2 summarizes selected operational data as recorded on the sampling date.

As reported last month, only TW-2A was kept running after September 29, 2011 due to leakage from the Carbtrol unit. Repair of the leaking seams was completed on October 13, 2011. The system remained off until October 18 to allow the glued seams to dry. Remote restart was unsuccessful on the 14th due to high water level in the settling tank.

AECOM made four site visits during the period to conduct the required system inspection, perform scheduled and unscheduled maintenance, and to collect water samples. The September 29 service visit was described in the previous report. Details for the current period follow:

October 11& 13 – AECOM technician was on-site to repair the leaking air stripper seams. The air stripper seams were glued successfully, and the system remained off for the glue to dry. The technician also noted that the phone line was down, disabling remote access and system data fax sheets. The phone line was spliced, wrapped, and put back on the ground to establish connection until the phone company can make a permanent repair.

October 18 – AECOM technician pumped down the settling tank and noted that the sump float needed replacement. System was turned on at 1-1:30 PM. Recent air stripper repairs appeared to be in good condition. Sump float switch would be replaced during the next site visit.

October 21 – Performed monthly system inspection, noted system readings, replaced floor sump float,

and collected monthly influent and effluent samples. Flow rate of the pump in TW-2A was reduced to 12 gpm. The technician noted that the air stripper was still leaking somewhat, but all repairs were intact. The effluent sample was collected at the air stripper discharge, rather than at the sink, during this sampling event.

As you know, on October 22, 2011, the stripper seams failed at yet another location. The release initiated a system shutdown. The system has been down since that date. AECOM will soon receive bids to replace the failed stripper.

Please feel free to contact me at (518) 951-2262 if you have any questions regarding this report or the operation of the treatment system.

Sincerely,
AECOM Technical Services Northeast, Inc.

A handwritten signature in dark ink, appearing to read "Stephen Choiniere", with a stylized flourish at the end.

Stephen R. Choiniere
Project Manager

Table 1
Summary of Influent and Effluent Data
Sampling Date: October 21, 2011
NOW Corporation Site
Town of Clinton, New York

Analytes/ Parameters	Total Influent	Effluent	Recovery Wells			Effluent Limitations	
			TW-1	TW-2A	TW-3		(units)
Quantity treated, per day		12,068				Monitor	gallons
pH	6.8	6.9				6.5 to 8.5	standard units
Oil and Grease	<5.0	<5.0	NA	NA	NA	15	mg/L
Total Cyanide	<10	<10	NA	NA	NA	10	ug/L
TDS	250	300	NA	NA	NA	1000	mg/L
TSS	15	22	NA	NA	NA	50	mg/L
Aluminum, Total	<200	<200	NA	NA	NA	Monitor	ug/L
Arsenic, Total	<20	<20	NA	NA	NA	100	ug/L
Barium, Total	71 J	74 J	NA	NA	NA	Monitor	ug/L
Chromium	1.2 BJ	1.5 BJ	NA	NA	NA	400	ug/L
Copper	<25	<25	NA	NA	NA	24	ug/L
Iron	<200	<200	NA	NA	NA	600	ug/L
Mercury	<0.20	<0.20	NA	NA	NA	0.8	ug/L
Manganese	85	68	NA	NA	NA	Monitor	ug/L
Nickel	1.0 J	1.7 J	NA	NA	NA	200	ug/L
Zinc	9.8 J	12 J	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	210	3.9	<2.0	500	3.3	10	ug/L
1,1,2-Trichloroethane	<5.0	<0.50	<2.0	<10	<0.50	1.2	ug/L
1,1-Dichloroethane	100	4.9	37	230	13	10	ug/L
1,1-Dichloroethene	9	<0.50	7.7	18	1.2	0.5	ug/L
1,2-Dichloroethane	<5.0	<0.50	<2.0	<10	<0.50	1.6	ug/L
Benzene	<5.0	<0.50	<2.0	<10	<0.50	1.4	ug/L
Chlorobenzene	<5.0	<0.50	<2.0	<10	<0.50	10	ug/L
Chloroethane	<5.0	<0.50	<2.0	<10	<0.50	10	ug/L
cis -1,2-Dichloroethene	11	0.65	2.3	26	<0.50	5	ug/L
Ethylbenzene	<5.0	<0.50	<2.0	<10	<0.50	10	ug/L
o-Xylene	<5.0	<0.50	<2.0	<10	<0.50	5	ug/L
m,p-Xylene	<5.0	<0.50	<2.0	<10	<0.50	10	ug/L
Tetrachloroethene	<5.0	<0.50	<2.0	<10	<0.50	1.4	ug/L
Toluene	<5.0	<0.50	<2.0	<10	<0.50	10	ug/L
trans -1,2-Dichloroethene	<5.0	<0.50	<2.0	<10	<0.50	5	ug/L
Trichloroethene	260	7.8	43	580	13	6	ug/L
Vinyl Chloride	<5.0	<0.50	<2.0	<10	<0.50	0.6	ug/L

Notes:

- 1) Detected concentrations are presented in **bold** typeface, and are expressed in the units shown in far right column.
- 2) Effluent concentration **boxed in bold** denotes exceedance of effluent limitations.
- 3) **NA** indicates not analyzed.
- 4) "**J**" indicates an estimated concentration below the reporting limit (RL).
- 5) "**B**" denotes metal detected in method blank at concentration below the RL, but above the method detection limit.

Table 2
Summary of October 2011 O&M Data

NOW Corporation Site
Town of Clinton, New York

Instrumentation/Readings:		10/21/11	Units
<i>TW-1</i>			
	Pumping Rate	4	GPM
	Water Level Above Transducer	16.44	feet
	Flow Meter Reading	6,236,900	gallons
	Pump Pressure	70	psi
<i>TW-2A</i>			
	Pumping Rate	12	GPM
	Water Level Above Transducer	32.25	feet
	Flow Meter Reading	23,183,600	gallons
	Pump Pressure	25	psi
<i>TW-3</i>			
	Pumping Rate	4	GPM
	Water Level Above Transducer	36.18	feet
	Flow Meter Reading	9,377,900	gallons
	Pump Pressure	70	psi
<i>Air Stripper</i>			
	Stripper Blower Pressure	22.5	inches H ₂ O
	Air Temperature in Stripper	50	°F
	Pressure Gauge - Left Leg	4.5	inches H ₂ O
	Pressure Gauge - Right Leg	1.5	inches H ₂ O
<i>Effluent Flow</i>			
	Effluent Flow this period (calculated)	265,500	gallons
	Total Effluent Flow (calculated)	86,759,600	gallons

Report Date:
16-Nov-11 10:15



- ☒ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

AECOM Technical Services, Inc.
40 British American Boulevard
Latham, NY 12110

Work Order: K2116
Project : NOW Corp. Site, 10/21/2011
Project #:

Attn: Stephen Choiniere

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
K2116-01	EFF102111	Aqueous	21-Oct-11 11:47	22-Oct-11 08:42
K2116-02	INF102111	Aqueous	21-Oct-11 12:08	22-Oct-11 08:42
K2116-03	TW-1 102111	Aqueous	21-Oct-11 12:41	22-Oct-11 08:42
K2116-04	TW-2A 102111	Aqueous	21-Oct-11 12:23	22-Oct-11 08:42
K2116-05	TW-3 102111	Aqueous	21-Oct-11 12:28	22-Oct-11 08:42
K2116-06	TB 102111	Aqueous	21-Oct-11 00:00	22-Oct-11 08:42

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the sample(s) as received. This report may not be reproduced, except in full, without written approval from Mitkem Laboratories.

All applicable NELAP or USEPA CLP requirements have been met.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Pennsylvania	68-00520
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033



LABORATORY
ACCREDITATION
BUREAU
ACCREDITED



Certificate # L2247 Testing

Authorized by:

Yihai Ding
Laboratory Director

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site, 10/21/2011

Laboratory Workorder / SDG #: K2116

SW846 8260C, VOC by GC-MS (25 mL Purge)

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code:
SW846 8260C

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW5030

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: V5
Instrument Type: GCMS-VOA
Description: HP6890 / HP6890
Manufacturer: Hewlett-Packard
Model: 6890 / 6890

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits.

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

The following samples were analyzed at dilution:

INF102111 (K2116-02A) : Dilution Factor: 10

TW-1 102111 (K2116-03A) : Dilution Factor: 4

TW-2A 102111 (K2116-04A) : Dilution Factor: 20

G. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

A handwritten signature in black ink, appearing to be 'J. H. P.' or similar, written over a horizontal line.

Signed:_____

Date:_____11/15/2011_____

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site, 10/21/2011

Laboratory Workorder / SDG #: K2116

EPA 1664A, Oil & Grease, HEM

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code:
EPA 1664A

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW3510

V. INSTRUMENTATION

The following instrumentation was used to perform Oil and Grease analysis.

Instrument Type: Analytical Balance
Manufacturer: Denver Instrument Company
Model: A-250

VI. ANALYSIS

A. Calibration:

Analytical balance was calibrated based on SOP/Method criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

D. Duplicate sample:

No client-requested duplicate analyses were included in this SDG.

E. Samples:

No other unusual occurrences were noted during sample analysis.

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Signed: _____

Date: _____ 11/15/2011 _____

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site, 10/21/2011

Laboratory Workorder / SDG #: K2116

SW846 6010C, SW846 7470A

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code:
SW846 6010C, SW846 7470A

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW3005
Aqueous Samples were prepared following procedures in laboratory test code: SW7470A

V. INSTRUMENTATION

The following instrumentation was used to perform

Instrument Code: FIMS2
Instrument Type: CVAA
Description: FIMS
Manufacturer: Perkin-Elmer
Model: FIMS100

Instrument Code: OPTIMA2
Instrument Type: ICP
Description: Optima 3100 XL
Manufacturer: Perkin-Elmer
Model: 3100 XL

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for laboratory control samples were within the QC limits.

2. Matrix spike (MS):

A matrix spike was not performed on any sample in this SDG.

D. Post Digestion Spike (PDS):

A post-digestion spike was not performed on any sample in this SDG.

E. Duplicate sample:

A duplicate analysis was not performed on any sample in this SDG.

F. Serial Dilution (SD):

A serial dilution was not performed on any sample in this SDG.

G. Samples:

No other unusual occurrences were noted during sample analysis.

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Signed:_____

Date:_____11/15/2011_____

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site, 10/21/2011

Laboratory Workorder / SDG #: K2116

SM 2540C, SM 2540D, SW846 9012B

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SM 2540C, SM 2540D, SW846 9012B

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SM 2540C, SM 2540D, SW846 9012B

V. INSTRUMENTATION

The following instrumentation was used to perform

Instrument Code: LACHAT1
Instrument Type: WC
Description: Flow Injection Analyzer
Manufacturer: Zellweger Analytics
Model: Quik-Chem 8000

Instrument Code: MANUAL
Instrument Type: WC
Description:
Manufacturer:
Model:

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

D. Duplicate sample:

Relative percent differences were within the QC limits the following exceptions:

INF102111 (K2116-02CDUP), Relative Percent Difference is greater than reported RPD limit, recovery is below criteria for Total Dissolved Solids at 8% with criteria of (0-5).

E. Dilutions:

F. Samples:

No other unusual occurrences were noted during sample analysis.

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A handwritten signature in black ink, appearing to be 'J. H. L.', is written over a horizontal line.

Signed:_____

Date:_____11/15/2011_____

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/10/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF102111

Lab ID: K2116-01

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 11:47

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		0.50	ug/L	1	11/04/2011 0:19	62668
Chloroethane	ND		0.50	ug/L	1	11/04/2011 0:19	62668
1,1-Dichloroethene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
trans-1,2-Dichloroethene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
Methyl tert-butyl ether	ND		0.50	ug/L	1	11/04/2011 0:19	62668
1,1-Dichloroethane	4.9		0.50	ug/L	1	11/04/2011 0:19	62668
cis-1,2-Dichloroethene	0.65		0.50	ug/L	1	11/04/2011 0:19	62668
1,1,1-Trichloroethane	3.9		0.50	ug/L	1	11/04/2011 0:19	62668
1,2-Dichloroethane	ND		0.50	ug/L	1	11/04/2011 0:19	62668
Benzene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
Trichloroethene	7.8		0.50	ug/L	1	11/04/2011 0:19	62668
Toluene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
1,1,2-Trichloroethane	ND		0.50	ug/L	1	11/04/2011 0:19	62668
Tetrachloroethene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
Chlorobenzene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
Ethylbenzene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
m,p-Xylene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
o-Xylene	ND		0.50	ug/L	1	11/04/2011 0:19	62668
Surrogate: Dibromofluoromethane	104		88-124	%REC	1	11/04/2011 0:19	62668
Surrogate: 1,2-Dichloroethane-d4	86.7		79-115	%REC	1	11/04/2011 0:19	62668
Surrogate: Toluene-d8	91.2		80-114	%REC	1	11/04/2011 0:19	62668
Surrogate: Bromofluorobenzene	98.2		60-123	%REC	1	11/04/2011 0:19	62668

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/10/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: INF102111

Lab ID: K2116-02

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 12:08

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		5.0	ug/L	10	11/04/2011 0:48	62668
Chloroethane	ND		5.0	ug/L	10	11/04/2011 0:48	62668
1,1-Dichloroethene	9.0		5.0	ug/L	10	11/04/2011 0:48	62668
trans-1,2-Dichloroethene	ND		5.0	ug/L	10	11/04/2011 0:48	62668
Methyl tert-butyl ether	ND		5.0	ug/L	10	11/04/2011 0:48	62668
1,1-Dichloroethane	100		5.0	ug/L	10	11/04/2011 0:48	62668
cis-1,2-Dichloroethene	11		5.0	ug/L	10	11/04/2011 0:48	62668
1,1,1-Trichloroethane	210		5.0	ug/L	10	11/04/2011 0:48	62668
1,2-Dichloroethane	ND		5.0	ug/L	10	11/04/2011 0:48	62668
Benzene	ND		5.0	ug/L	10	11/04/2011 0:48	62668
Trichloroethene	260		5.0	ug/L	10	11/04/2011 0:48	62668
Toluene	ND		5.0	ug/L	10	11/04/2011 0:48	62668
1,1,2-Trichloroethane	ND		5.0	ug/L	10	11/04/2011 0:48	62668
Tetrachloroethene	ND		5.0	ug/L	10	11/04/2011 0:48	62668
Chlorobenzene	ND		5.0	ug/L	10	11/04/2011 0:48	62668
Ethylbenzene	ND		5.0	ug/L	10	11/04/2011 0:48	62668
m,p-Xylene	ND		5.0	ug/L	10	11/04/2011 0:48	62668
o-Xylene	ND		5.0	ug/L	10	11/04/2011 0:48	62668
Surrogate: Dibromofluoromethane	105		88-124	%REC	10	11/04/2011 0:48	62668
Surrogate: 1,2-Dichloroethane-d4	84.5		79-115	%REC	10	11/04/2011 0:48	62668
Surrogate: Toluene-d8	91.6		80-114	%REC	10	11/04/2011 0:48	62668
Surrogate: Bromofluorobenzene	95.5		60-123	%REC	10	11/04/2011 0:48	62668

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/10/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-1 102111

Lab ID: K2116-03

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 12:41

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		2.0	ug/L	4	11/04/2011 1:17	62668
Chloroethane	ND		2.0	ug/L	4	11/04/2011 1:17	62668
1,1-Dichloroethene	7.7		2.0	ug/L	4	11/04/2011 1:17	62668
trans-1,2-Dichloroethene	ND		2.0	ug/L	4	11/04/2011 1:17	62668
Methyl tert-butyl ether	ND		2.0	ug/L	4	11/04/2011 1:17	62668
1,1-Dichloroethane	37		2.0	ug/L	4	11/04/2011 1:17	62668
cis-1,2-Dichloroethene	2.3		2.0	ug/L	4	11/04/2011 1:17	62668
1,1,1-Trichloroethane	ND		2.0	ug/L	4	11/04/2011 1:17	62668
1,2-Dichloroethane	ND		2.0	ug/L	4	11/04/2011 1:17	62668
Benzene	ND		2.0	ug/L	4	11/04/2011 1:17	62668
Trichloroethene	43		2.0	ug/L	4	11/04/2011 1:17	62668
Toluene	ND		2.0	ug/L	4	11/04/2011 1:17	62668
1,1,2-Trichloroethane	ND		2.0	ug/L	4	11/04/2011 1:17	62668
Tetrachloroethene	ND		2.0	ug/L	4	11/04/2011 1:17	62668
Chlorobenzene	ND		2.0	ug/L	4	11/04/2011 1:17	62668
Ethylbenzene	ND		2.0	ug/L	4	11/04/2011 1:17	62668
m,p-Xylene	ND		2.0	ug/L	4	11/04/2011 1:17	62668
o-Xylene	ND		2.0	ug/L	4	11/04/2011 1:17	62668
Surrogate: Dibromofluoromethane	106		88-124	%REC	4	11/04/2011 1:17	62668
Surrogate: 1,2-Dichloroethane-d4	90.9		79-115	%REC	4	11/04/2011 1:17	62668
Surrogate: Toluene-d8	92.2		80-114	%REC	4	11/04/2011 1:17	62668
Surrogate: Bromofluorobenzene	95.0		60-123	%REC	4	11/04/2011 1:17	62668

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/10/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-2A 102111

Lab ID: K2116-04

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 12:23

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		10	ug/L		20 11/04/2011 1:45	62668
Chloroethane	ND		10	ug/L		20 11/04/2011 1:45	62668
1,1-Dichloroethene	18		10	ug/L		20 11/04/2011 1:45	62668
trans-1,2-Dichloroethene	ND		10	ug/L		20 11/04/2011 1:45	62668
Methyl tert-butyl ether	ND		10	ug/L		20 11/04/2011 1:45	62668
1,1-Dichloroethane	230		10	ug/L		20 11/04/2011 1:45	62668
cis-1,2-Dichloroethene	26		10	ug/L		20 11/04/2011 1:45	62668
1,1,1-Trichloroethane	500		10	ug/L		20 11/04/2011 1:45	62668
1,2-Dichloroethane	ND		10	ug/L		20 11/04/2011 1:45	62668
Benzene	ND		10	ug/L		20 11/04/2011 1:45	62668
Trichloroethene	580		10	ug/L		20 11/04/2011 1:45	62668
Toluene	ND		10	ug/L		20 11/04/2011 1:45	62668
1,1,2-Trichloroethane	ND		10	ug/L		20 11/04/2011 1:45	62668
Tetrachloroethene	ND		10	ug/L		20 11/04/2011 1:45	62668
Chlorobenzene	ND		10	ug/L		20 11/04/2011 1:45	62668
Ethylbenzene	ND		10	ug/L		20 11/04/2011 1:45	62668
m,p-Xylene	ND		10	ug/L		20 11/04/2011 1:45	62668
o-Xylene	ND		10	ug/L		20 11/04/2011 1:45	62668
Surrogate: Dibromofluoromethane	103		88-124	%REC		20 11/04/2011 1:45	62668
Surrogate: 1,2-Dichloroethane-d4	88.3		79-115	%REC		20 11/04/2011 1:45	62668
Surrogate: Toluene-d8	93.0		80-114	%REC		20 11/04/2011 1:45	62668
Surrogate: Bromofluorobenzene	95.0		60-123	%REC		20 11/04/2011 1:45	62668

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/10/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-3 102111

Lab ID: K2116-05

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 12:28

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		0.50	ug/L	1	11/04/2011 2:14	62668
Chloroethane	ND		0.50	ug/L	1	11/04/2011 2:14	62668
1,1-Dichloroethene	1.2		0.50	ug/L	1	11/04/2011 2:14	62668
trans-1,2-Dichloroethene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
Methyl tert-butyl ether	ND		0.50	ug/L	1	11/04/2011 2:14	62668
1,1-Dichloroethane	13		0.50	ug/L	1	11/04/2011 2:14	62668
cis-1,2-Dichloroethene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
1,1,1-Trichloroethane	3.3		0.50	ug/L	1	11/04/2011 2:14	62668
1,2-Dichloroethane	ND		0.50	ug/L	1	11/04/2011 2:14	62668
Benzene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
Trichloroethene	13		0.50	ug/L	1	11/04/2011 2:14	62668
Toluene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
1,1,2-Trichloroethane	ND		0.50	ug/L	1	11/04/2011 2:14	62668
Tetrachloroethene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
Chlorobenzene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
Ethylbenzene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
m,p-Xylene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
o-Xylene	ND		0.50	ug/L	1	11/04/2011 2:14	62668
Surrogate: Dibromofluoromethane	105		88-124	%REC	1	11/04/2011 2:14	62668
Surrogate: 1,2-Dichloroethane-d4	90.3		79-115	%REC	1	11/04/2011 2:14	62668
Surrogate: Toluene-d8	91.9		80-114	%REC	1	11/04/2011 2:14	62668
Surrogate: Bromofluorobenzene	90.9		60-123	%REC	1	11/04/2011 2:14	62668

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/10/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: TB 102111

Lab ID: K2116-06

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 0:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260C -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Chloroethane	ND		0.50	ug/L	1	11/04/2011 2:43	62668
1,1-Dichloroethene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
trans-1,2-Dichloroethene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Methyl tert-butyl ether	ND		0.50	ug/L	1	11/04/2011 2:43	62668
1,1-Dichloroethane	ND		0.50	ug/L	1	11/04/2011 2:43	62668
cis-1,2-Dichloroethene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
1,1,1-Trichloroethane	ND		0.50	ug/L	1	11/04/2011 2:43	62668
1,2-Dichloroethane	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Benzene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Trichloroethene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Toluene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
1,1,2-Trichloroethane	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Tetrachloroethene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Chlorobenzene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Ethylbenzene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
m,p-Xylene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
o-Xylene	ND		0.50	ug/L	1	11/04/2011 2:43	62668
Surrogate: Dibromofluoromethane	107		88-124	%REC	1	11/04/2011 2:43	62668
Surrogate: 1,2-Dichloroethane-d4	88.7		79-115	%REC	1	11/04/2011 2:43	62668
Surrogate: Toluene-d8	89.9		80-114	%REC	1	11/04/2011 2:43	62668
Surrogate: Bromofluorobenzene	91.3		60-123	%REC	1	11/04/2011 2:43	62668

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.

Work Order: K2116

Project: NOW Corp. Site, 10/21/2011

ANALYTICAL QC SUMMARY REPORT

SW8260_25_W

SW846 8260C -- VOC by GC-MS (25 mL Purge)

Sample ID: MB-62668	SampType: MBLK	TestCode: SW8260_25_W	Prep Date: 11/03/11 14:43	Run ID: V5_111103A								
Client ID: MB-62668	Batch ID: 62668	Units: ug/L	Analysis Date: 11/03/11 19:03	SeqNo: 1635066								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.15	0.50									
Chloroethane	ND	0.24	0.50									
1,1-Dichloroethene	ND	0.19	0.50									
trans-1,2-Dichloroethene	ND	0.14	0.50									
Methyl tert-butyl ether	ND	0.13	0.50									
1,1-Dichloroethane	ND	0.18	0.50									
cis-1,2-Dichloroethene	ND	0.19	0.50									
1,1,1-Trichloroethane	ND	0.11	0.50									
1,2-Dichloroethane	ND	0.16	0.50									
Benzene	ND	0.12	0.50									
Trichloroethene	ND	0.13	0.50									
Toluene	ND	0.14	0.50									
1,1,2-Trichloroethane	ND	0.20	0.50									
Tetrachloroethene	ND	0.17	0.50									
Chlorobenzene	ND	0.13	0.50									
Ethylbenzene	ND	0.13	0.50									
m,p-Xylene	ND	0.22	0.50									
o-Xylene	ND	0.17	0.50									
Surrogate:	10.82		0.50	10.00	0	108	88	124	0			
Dibromofluoromethane												
Surrogate: 1,2-	9.700		0.50	10.00	0	97.0	79	115	0			
Dichloroethane-d4												
Surrogate: Toluene-d8	9.425		0.50	10.00	0	94.3	80	114	0			
Surrogate:	9.923		0.50	10.00	0	99.2	60	123	0			
Bromofluorobenzene												

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/15/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF102111

Lab ID: K2116-01

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 11:47

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 1664A -- Oil & Grease, HEM							E1664
Oil & Grease, Total Recoverable	ND		5.0	mg/L	1	11/09/2011 15:00	62865

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/15/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: INF102111

Lab ID: K2116-02

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 12:08

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 1664A -- Oil & Grease, HEM							E1664
Oil & Grease, Total Recoverable	ND		5.0	mg/L	1	11/09/2011 15:00	62865

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.

Work Order: K2116

Project: NOW Corp. Site, 10/21/2011

ANALYTICAL QC SUMMARY REPORT

E1664

EPA 1664A -- Oil & Grease, HEM

Sample ID: MB-62865	SampType: MBLK	TestCode: E1664	Prep Date: 11/09/11 9:35	Run ID: MANUAL_111109A							
Client ID: MB-62865	Batch ID: 62865	Units: mg/L	Analysis Date: 11/09/11 15:00	SeqNo: 1639199							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: LCS-62865	SampType: LCS	TestCode: E1664	Prep Date: 11/09/11 9:35	Run ID: MANUAL_111109A							
Client ID: LCS-62865	Batch ID: 62865	Units: mg/L	Analysis Date: 11/09/11 15:00	SeqNo: 1639197							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: LCSD-62865	SampType: LCSD	TestCode: E1664	Prep Date: 11/09/11 9:35	Run ID: MANUAL_111109A							
Client ID: LCSD-62865	Batch ID: 62865	Units: mg/L	Analysis Date: 11/09/11 15:00	SeqNo: 1639198							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/14/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF102111

Lab ID: K2116-01

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 11:47

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							SW6010_W
Aluminum	ND		200	µg/L		1 10/26/2011 8:26	62439
Arsenic	ND		20	µg/L		1 10/26/2011 8:26	62439
Barium	74	J	200	µg/L		1 10/26/2011 8:26	62439
Chromium	1.5	BJ	20	µg/L		1 10/26/2011 8:26	62439
Copper	ND		25	µg/L		1 10/26/2011 8:26	62439
Iron	ND		200	µg/L		1 10/26/2011 8:26	62439
Manganese	68		50	µg/L		1 10/26/2011 8:26	62439
Nickel	1.7	J	50	µg/L		1 10/26/2011 8:26	62439
Zinc	12	J	50	µg/L		1 10/26/2011 8:26	62439
SW846 7470A -- Mercury by FIA							SW7470
Mercury	ND		0.20	µg/L		1 11/10/2011 10:13	62882

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/14/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: INF102111

Lab ID: K2116-02

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 12:08

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							SW6010_W
Aluminum	ND		200	µg/L		1 10/26/2011 8:29	62439
Arsenic	ND		20	µg/L		1 10/26/2011 8:29	62439
Barium	71	J	200	µg/L		1 10/26/2011 8:29	62439
Chromium	1.2	BJ	20	µg/L		1 10/26/2011 8:29	62439
Copper	ND		25	µg/L		1 10/26/2011 8:29	62439
Iron	ND		200	µg/L		1 10/26/2011 8:29	62439
Manganese	85		50	µg/L		1 10/26/2011 8:29	62439
Nickel	1.0	J	50	µg/L		1 10/26/2011 8:29	62439
Zinc	9.8	J	50	µg/L		1 10/26/2011 8:29	62439
SW846 7470A -- Mercury by FIA							SW7470
Mercury	ND		0.20	µg/L		1 11/10/2011 10:15	62882

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.

Work Order: K2116

Project: NOW Corp. Site, 10/21/2011

ANALYTICAL QC SUMMARY REPORT

SW6010_W

SW846 6010C -- Metals by ICP

Sample ID: MB-62439	SampType: MBLK	TestCode: SW6010_W	Prep Date: 10/25/11 11:35	Run ID: OPTIMA2_111026A								
Client ID: MB-62439	Batch ID: 62439	Units: µg/L	Analysis Date: 10/26/11 8:19	SeqNo: 1627458								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	66	200									
Arsenic	ND	4.3	20									
Barium	ND	1.1	200									
Chromium	0.6582	0.64	20									
Copper	ND	3.6	30									
Iron	ND	31	200									
Manganese	ND	10	50									
Nickel	ND	0.85	50									
Zinc	ND	4.9	50									

J

Sample ID: LCS-62439	SampType: LCS	TestCode: SW6010_W	Prep Date: 10/25/11 11:35	Run ID: OPTIMA2_111026A								
Client ID: LCS-62439	Batch ID: 62439	Units: µg/L	Analysis Date: 10/26/11 8:23	SeqNo: 1627459								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	8993	66	200	9100	0	98.8	80	120	0			
Arsenic	461.1	4.3	20	455.0	0	101	80	120	0			
Barium	9200	1.1	200	9100	0	101	80	120	0			
Chromium	910.4	0.64	20	910.0	0	100	80	120	0			B
Copper	1124	3.6	30	1130	0	99.5	80	120	0			
Iron	4631	31	200	4550	0	102	80	120	0			
Manganese	2267	10	50	2270	0	99.9	80	120	0			
Nickel	2227	0.85	50	2270	0	98.1	80	120	0			
Zinc	2280	4.9	50	2270	0	100	80	120	0			

Sample ID: MB-62882	SampType: MBLK	TestCode: SW7470	Prep Date: 11/09/11 13:00	Run ID: FIMS2_111110A							
Client ID: MB-62882	Batch ID: 62882	Units: µg/L	Analysis Date: 11/10/11 10:08	SeqNo: 1639762							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.028	0.20								

Sample ID: LCS-62882	SampType: LCS	TestCode: SW7470	Prep Date: 11/09/11 13:00	Run ID: FIMS2_111110A							
Client ID: LCS-62882	Batch ID: 62882	Units: µg/L	Analysis Date: 11/10/11 10:10	SeqNo: 1639764							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.856	0.028	0.20	4.550	0	107	80	120	0		

Sample ID: LCSD-62882	SampType: LCSD	TestCode: SW7470	Prep Date: 11/09/11 13:00	Run ID: FIMS2_111110A							
Client ID: LCSD-62882	Batch ID: 62882	Units: µg/L	Analysis Date: 11/10/11 10:12	SeqNo: 1639767							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.819	0.028	0.20	4.550	0	106	80	120	4.856	0.771	20

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/14/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF102111

Lab ID: K2116-01

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 11:47

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2540C -- TOTAL DISSOLVED SOLIDS							SM2540_TDS
Total Dissolved Solids	300		10	mg/L	1	10/25/2011 22:54	62451
SM 2540D -- TOTAL SUSPENDED SOLIDS							SM2540_TSS
Total Suspended Solids	22		10	mg/L	1	10/26/2011 3:42	62452
SW846 9012B -- Total Cyanide							SW9012_W
Cyanide	ND		10	ug/L	1	10/26/2011 14:25	62471

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

11/14/2011

Client: AECOM Technical Services, Inc.

Client Sample ID: INF102111

Lab ID: K2116-02

Project: NOW Corp. Site, 10/21/2011

Collection Date: 10/21/11 12:08

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2540C -- TOTAL DISSOLVED SOLIDS							SM2540_TDS
Total Dissolved Solids	250		10	mg/L	1	10/26/2011 2:06	62451
SM 2540D -- TOTAL SUSPENDED SOLIDS							SM2540_TSS
Total Suspended Solids	15		10	mg/L	1	10/26/2011 5:18	62452
SW846 9012B -- Total Cyanide							SW9012_W
Cyanide	ND		10	ug/L	1	10/26/2011 14:28	62471

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.

Work Order: K2116

Project: NOW Corp. Site, 10/21/2011

ANALYTICAL QC SUMMARY REPORT

SM2540_TDS

SM 2540C -- TOTAL DISSOLVED SOLIDS

Sample ID: MB-62451	SampType: MBLK	TestCode: SM2540_TDS	Prep Date: 10/25/11 16:30	Run ID: MANUAL_111025F				
Client ID: MB-62451	Batch ID: 62451	Units: mg/L	Analysis Date: 10/25/11 16:30	SeqNo: 1634895				
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Total Dissolved Solids		ND	10	10				

Sample ID: LCS-62451	SampType: LCS	TestCode: SM2540_TDS	Prep Date: 10/25/11 16:30	Run ID: MANUAL_111025F							
Client ID: LCS-62451	Batch ID: 62451	Units: mg/L	Analysis Date: 10/25/11 19:42	SeqNo: 1634896							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	410.0	10	10	413.0	0	99.3	80	120	0		

Sample ID: K2116-02CDUP	SampType: DUP	TestCode: SM2540_TDS	Prep Date: 10/25/11 16:30	Run ID: MANUAL_111025F							
Client ID: INF102111	Batch ID: 62451	Units: mg/L	Analysis Date: 10/26/11 5:18	SeqNo: 1634899							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	266.0	10	0	0	0	0	0	245.0	8.22	5.0	R

Sample ID: MB-62452	SampType: MBLK	TestCode: SM2540_TSS	Prep Date: 10/25/11 16:30	Run ID: MANUAL_111025G							
Client ID: MB-62452	Batch ID: 62452	Units: mg/L	Analysis Date: 10/25/11 16:30	SeqNo: 1635112							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Suspended SolidsND1010

Sample ID: LCS-62452	SampType: LCS	TestCode: SM2540_TSS	Prep Date: 10/25/11 16:30	Run ID: MANUAL_111025G							
Client ID: LCS-62452	Batch ID: 62452	Units: mg/L	Analysis Date: 10/25/11 18:06	SeqNo: 1635113							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Suspended Solids33.00101032.500102801200

Sample ID: K2116-02CDUP	SampType: DUP	TestCode: SM2540_TSS	Prep Date: 10/25/11 16:30	Run ID: MANUAL_111025G							
Client ID: INF102111	Batch ID: 62452	Units: mg/L	Analysis Date: 10/26/11 6:54	SeqNo: 1635121							
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Suspended Solids10.0010100000015.0005.0

CLIENT: AECOM Technical Services, Inc.

Work Order: K2116

SW9012 W

Project: NOW Corp. Site, 10/21/2011

SW846 9012B -- Total Cyanide

Sample ID: MB-62471	SampType: MBLK	TestCode: SW9012_W	Prep Date: 10/26/11 9:00	Run ID: LACHAT1_111026A
Client ID: MB-62471	Batch ID: 62471	Units: ug/L	Analysis Date: 10/26/11 13:48	SeqNo: 1631953
Analyte	Result	MDL	SPK value	SPK Ref Val
Cvanide	ND	7.5	RL	RPD Ref Val
			MDL	%RPD RPDLimit
			20	Qual

Sample ID: LCS-62471	SampType: LCS	TestCode: SW9012_W	Prep Date: 10/26/11 9:00	Run ID: LACHAT1_111026A					
Client ID: LCS-62471	Batch ID: 62471	Units: ug/L	Analysis Date: 10/26/11 13:50	SeqNo: 1631954					
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Cyanide	104.1	7.5	100.0	0	104	80	120	0	

Sample ID: LCSD-62471	SampType: LCSD	TestCode: SW9012_W	Prep Date: 10/26/11 9:00	Run ID: LACHAT1_111026A				
Client ID: LCSD-62471	Batch ID: 62471	Units: ug/L	Analysis Date: 10/26/11 13:53	SeqNo: 1631955				
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Cyanide	103.6	7.5	20	100.0	0	104.1	0.445	20

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: K2116

Client ID: EARTH_NY

Case:

HC Due: 11/09/11

Report Level: LEVEL 2

Project: NOW Corp. Site

Special Program:

WO Name: NOW Corp. Site, 10/21/2011

Fax Due:

Fax Report: ☐

EDD:

Location: NOW_CORP,

PO: 94017.02

Comments: N/A

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
K2116-01A	EFF102111	10/21/2011 11:47	10/22/2011	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
K2116-01B	EFF102111	10/21/2011 11:47	10/22/2011	Aqueous	SW6010_W	/ See SEL list				Y	M4
K2116-01B	EFF102111	10/21/2011 11:47	10/22/2011	Aqueous	SW7470	/ See SEL list					M4
K2116-01C	EFF102111	10/21/2011 11:47	10/22/2011	Aqueous	SM2540_TDS	/					N3
K2116-01C	EFF102111	10/21/2011 11:47	10/22/2011	Aqueous	SM2540_TSS	/					N3
K2116-01D	EFF102111	10/21/2011 11:47	10/22/2011	Aqueous	SW9012_W	/				Y	N3
K2116-01E	EFF102111	10/21/2011 11:47	10/22/2011	Aqueous	E1664	/					N3
K2116-02A	INF102111	10/21/2011 12:08	10/22/2011	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
K2116-02B	INF102111	10/21/2011 12:08	10/22/2011	Aqueous	SW6010_W	/ See SEL list				Y	M4
K2116-02B	INF102111	10/21/2011 12:08	10/22/2011	Aqueous	SW7470	/ See SEL list					M4
K2116-02C	INF102111	10/21/2011 12:08	10/22/2011	Aqueous	SM2540_TDS	/					N3
K2116-02C	INF102111	10/21/2011 12:08	10/22/2011	Aqueous	SM2540_TSS	/					N3
K2116-02D	INF102111	10/21/2011 12:08	10/22/2011	Aqueous	SW9012_W	/				Y	N3
K2116-02E	INF102111	10/21/2011 12:08	10/22/2011	Aqueous	E1664	/					N3
K2116-03A	TW-1 102111	10/21/2011 12:41	10/22/2011	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
K2116-04A	TW-2A 102111	10/21/2011 12:23	10/22/2011	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
K2116-05A	TW-3 102111	10/21/2011 12:28	10/22/2011	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
K2116-06A	TB 102111	10/21/2011 00:00	10/22/2011	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold



A DIVISION OF SPECTRUM ANALYTICAL, INC. FEATURING HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- TAT- Indicate Date Needed: _____
· All TATs subject to laboratory approval.
Min. 24-hour notification needed for rushes.
· Samples disposed of after 30 days unless otherwise instructed.

Report To: AECOM
40 British American Blvd.
Latham NY 12110

Invoice To: Same

Project No.: 60135676 02

Site Name: Now Corp

Location: Stattsburg State: NY

Sampler(s): ERG

Project Mgr.: Stephen Choiniere

P.O. No.: _____ RQN: _____

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
8=NaHSO₄ 9=None 10=_____ 11=_____

List preservative code below:

2 4 9 2 5

Notes:

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

Containers:

Analyses:

QA/QC Reporting Level

- ☐ Level I ☐ Level II
☐ Level III ☐ Level IV
☐ Other _____

State specific reporting standards:

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	8260	Metals*	TPS/TSS	O+G	Cyanide			
	EFF 102111	10/21/11	11:47	G	GW	2	3	3	3	X	X	X	X	X			
	INF 102111	10/21/11	12:08				(82)		3	X	X	X	X	X			
	TW-1 102111		12:41														
	TW-2A 102111		12:23														
	TW-3 102111		12:28														
	TB 102111																
	/																
	/																
	/																
	/																
	/																

*Al, As, Ba, Cr,
Cu, Fe, Mn, Hg
Zn, N

Only 2 O+G
For INF Samp
One broken
in cooler.

☐ E-mail to _____

EDD Format _____

Relinquished by:

Received by:

Date:

Time:

Steve Gray
Fedex

Donna Miller

10/21/11

14:50

10-22-11

8:42

Condition upon receipt: ☒ Iced ☐ Ambient ☒ °C 30

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

Received By: <i>Gr</i>		Page 01 of 01	
Reviewed By: <i>luu</i>		Log-in Date 10/22/2011	
Work Order: K2116		Client Name: AECOM Technical Services, Inc.	
Project Name/Event: NOW Corp. Site			
Remarks: (1/2) Please see associated sample/extract transfer logbook pages submitted with this data package.			

	Lab Sample ID	Preservation (pH)					VOA Matrix	Soil HeadSpace or Air Bubble > or equal to 1/4"
		HNO3	H2SO4	HCl	NaOH	H3PO4		
1. Custody Seal(s) Present / Absent	K2116-01	<2		<2	>12		H	
Intact / Broken	K2116-02	<2		<2	>12		H	
2. Custody Seal Nos. N/A	K2116-03						H	
3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists Present / Absent	K2116-04						H	
	K2116-05						H	
	K2116-06						H	

4. Airbill AirBill / Sticker	
Present / Absent	
5. Airbill No. FedEx 8767 0996 0882	
6. Sample Tags Present / Absent	
Sample Tag Numbers Listed /	
Not Listed on Chain-of-Custody	
7. Sample Condition Intact / Broken / Leaking	
8. Cooler Temperature Indicator Bottle Present / Absent	
9. Cooler Temperature 3 °C	
10. Does information on TR/COCs and sample tags agree? Yes / No	
11. Date Received at Laboratory 10/22/2011	
12. Time Received 08:42	
Sample Transfer	
Fraction (1) TVOA/VOA	Fraction (2) SVOA/PEST/ARO
Area #	Area #
By	By
On	On
IR Temp Gun ID: MT-1	
Coolant Condition: ICE	
Preservative Name/Lot No:	

VOA Matrix Key:

US = Unpreserved Soil A = Air

UA = Unpreserved Aqueous H = HCl

M = MeOH E = Encore

N = NaHSO4 F = Freeze

See Sample Condition Notification/Corrective Action Form Yes / No

Rad OK Yes / No

Last Page of Data Report