AECOM

Operation, Maintenance and Monitoring Report
September 2013

NOW Corporation
Site 3-14-008

Work Assignment No.
D007626-25

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

November 2013

November 20, 2013

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: "September" 2013

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 49-day period (**August 12 – September 30, 2013)**.

With the exceptions noted below, if any, the pump and treat system was online and operational throughout the reporting period. Approximately 516,000 gallons of water were treated during the period. Discharge from the treatment system averaged approximately 10,500 gallons per day (gpd), compared to 15,700 gpd in the prior reporting period.

As of the last day of the reporting period, a total of 94,421,700 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 groundwater samples collected on September 30, 2013. As reported, the shipper delivered the cooler a day late, and the samples were above the required temperature range (2°-6° C) upon arrival at the laboratory. With your approval, analysis was restricted to the effluent sample. **There were no exceedances of effluent limitations.** AECOM later decided to have the influent sample analyzed for oil & grease due to results presented in the August letter report. A copy of the analytical laboratory report is attached. Table 2 summarizes selected operational data recorded on the sampling date. Table 3 is a summary of the quarterly water levels.

The only system downtime in the period was due to a low air flow alarm in the air stripper on August 16, 2013. Upon attempts to restart remotely, the air stripper shut down due to high water levels in its sump. Once a technician was available to visit site on August 21, 2013, the system was restarted and monitored until normal operations resumed. Five-days downtime represents approximately 10 percent of the reporting period.

AECOM made two site visits during the period to conduct the required system inspection, perform scheduled and unscheduled maintenance, and to collect groundwater samples. Details for the current period follow:

August 21 – confirmed proper air stripper blower operation, confirmed unobstructed flow through stripper effluent pipe; replaced air stripper tray gasket and restarted system.

September 30 – Performed monthly system inspection and influent and effluent sampling. Collected full round of monitoring well water levels.

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.

Stephen R. Choiniere
Project Manager

Table 1
Summary of Influent and Effluent Data
Sampling Date: September 30, 2013
NOW Corporation Site
NYSDEC Site No. 3-14-008
Town of Clinton, New York

Analytes/ Parameters	Total Influent	Effluent	Recovery Wells TW-1	Recovery Wells TW-2A	Recovery Wells TW-3	Effluent Limitations	(units)
Quantity treated, per day		10,531				Monitor	gallons
pH	7.4	7.1				6.5 to 8.5	standard units
Oil and Grease	<5.0	<5.0	NA	NA	NA	15	mg/L
Total Cyanide	NA*	<10	NA	NA	NA	10	ug/L
TDS	NA*	**280**	NA	NA	NA	1000	mg/L
TSS	NA*	<10	NA	NA	NA	50	mg/L
Aluminum, Total	NA*	<200	NA	NA	NA	Monitor	ug/L
Arsenic, Total	NA*	<20	NA	NA	NA	100	ug/L
Barium, Total	NA*	**89 BJ**	NA	NA	NA	Monitor	ug/L
Chromium	NA*	<20	NA	NA	NA	400	ug/L
Copper	NA*	<25	NA	NA	NA	24	ug/L
Iron	NA*	<200	NA	NA	NA	600	ug/L
Mercury	NA*	<0.20	NA	NA	NA	0.8	ug/L
Manganese	NA*	**84**	NA	NA	NA	Monitor	ug/L
Nickel	NA*	**1.6 J**	NA	NA	NA	200	ug/L
Zinc	NA*	<50	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	NA*	<0.50	NA*	NA*	NA*	10	ug/L
1,1,2-Trichloroethane	NA*	<0.50	NA*	NA*	NA*	1.2	ug/L
1,1-Dichloroethane	NA*	<0.50	NA*	NA*	NA*	10	ug/L
1,1-Dichloroethene	NA*	<0.50	NA*	NA*	NA*	0.5	ug/L
1,2-Dichloroethane	NA*	<0.50	NA*	NA*	NA*	1.6	ug/L
Benzene	NA*	<0.50	NA*	NA*	NA*	1.4	ug/L
Chlorobenzene	NA*	<0.50	NA*	NA*	NA*	10	ug/L
Chloroethane	NA*	<0.50	NA*	NA*	NA*	10	ug/L
cis -1,2-Dichloroethene	NA*	<0.50	NA*	NA*	NA*	5	ug/L
Ethylbenzene	NA*	<0.50	NA*	NA*	NA*	10	ug/L
o-Xylene	NA*	<0.50	NA*	NA*	NA*	5	ug/L
m,p-Xylene	NA*	<0.50	NA*	NA*	NA*	10	ug/L
Tetrachloroethene	NA*	<0.50	NA*	NA*	NA*	1.4	ug/L
Toluene	NA*	<0.50	NA*	NA*	NA*	10	ug/L
trans -1,2-Dichloroethene	NA*	<0.50	NA*	NA*	NA*	5	ug/L
Trichloroethene	NA*	<0.50	NA*	NA*	NA*	6	ug/L
Vinyl Chloride	NA*	<0.50	NA*	NA*	NA*	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. NA indicates not analyzed due to out of range temperature (2°-6° C)*

*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 September 2013 O&M Data

NOW Corporation Site
Town of Clinton, New York

Instrumentation/Readings:		**9/30/13**	**Units**
TW-1			
	Pumping Rate	3	GPM
	Water Level Above Transducer	12.76	feet
	Flow Meter Reading	6,770,200	gallons
	Pump Pressure	65	psi
TW-2A			
	Pumping Rate	14+	GPM
	Water Level Above Transducer	19.85	feet
	Flow Meter Reading	27,715,000	gallons
	Pump Pressure	0	psi
TW-3			
	Pumping Rate	1	GPM
	Water Level Above Transducer	21.19	feet
	Flow Meter Reading	11,466,700	gallons
	Pump Pressure	65	psi
VFD Setting	Arrival	55	Hz
	Departure	55	Hz
Air Stripper			
	Stripper Blower Pressure	14.5	inches H_2O
	Air Temperature in Stripper	52	°F
Effluent Flow			
	Effluent Flow this period (calculated)	516,000	gallons
	Total Effluent Flow (calculated)	94,421,700	gallons

Table 3
Groundwater Levels
NOW Corporation Site
NYSDEC Site No. 3-14-008
Town of Clinton, New York

Well ID	MP Elevation	9/30/13	
		Depth to Water (Ft below MP)	GW Elevation
MW-1	289.50	16.40	273.10
MW-2	332.51	34.24	298.27
MW-3	312.83	34.03	278.80
MW-3S	312.51	28.63	283.88
MW-4	298.29	25.22	273.07
MW-4D	298.16	25.06	273.10
MW-5	285.48	20.39	265.09
MW-6S	287.90	24.43	263.47
MW-6D	287.25	14.04	273.21
MW-7S	292.12	31.59	260.53
MW-7D	292.54	76.85	215.69
MW-12S	NA	12.61	NA
MW-12D	NA	15.81	NA
OW-1	307.75	54.20	253.55
OW-2	305.96	71.54	234.42
OW-6	294.81	9.01	285.80
IW-1	312.46	40.10	272.36
IW-2	304.56	41.49	263.07

Note: NA indicates data are not available.
MP denotes measuring point.

Report Date:
23-Oct-13 13:41

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

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

Work Order: M1903
Project : NOW Corp. Site
Project #:

Attn: Stephen Choiniere

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
M1903-01	EFF-55 093013	Aqueous	30-Sep-13 11:45	02-Oct-13 09:27
M1903-02	INF 093013	Aqueous	30-Sep-13 11:52	02-Oct-13 09:27

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 samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirments have been meet.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and DoD Environmental Laboratory Accreditation Program (ELAP), holds Organic and Inorganic contracts under the USEPA CLP Program and is certified under several states. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.spectrum-analytical.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
Florida	E87664
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033

NELAP ACCREDITED TNI LABORATORY

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

Laboratory Workorder / SDG #: M1903

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: SW5030B

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:

No sample in this SDG required analysis at dilution.

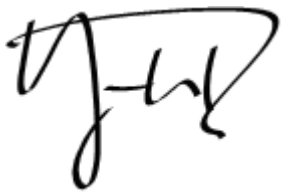
G. Samples:

No other unusual occurrences were noted during sample analysis.

H. Manual Integration

No manual integrations were performed on any sample or standard.

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.

Signed:_____  _____

Date:_____10/22/2013_____

REPORT NARRATIVE

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

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M1903

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: SW3005A
Aqueous Samples were prepared following procedures in laboratory test code: SW7470A

V. INSTRUMENTATION

The following instrumentation was used:

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

Instrument Code: OPTIMA3
Instrument Type: ICP
Description: Optima ICP-OES
Manufacturer: Perkin-Elmer
Model: 4300 DV

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):

Serial Dilution analyses were performed on sample: EFF-55 093013 (M1903-01ESD).

Percent differences were within the QC limits.

G. Samples:

No other unusual occurrences were noted during sample analysis.

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Signed:_____

Date: 10/23/2013

REPORT NARRATIVE

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

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M1903

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: SW3510C

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):

Matrix spikes were performed on samples: INF 093013 (M1903-02AMS) and INF 093013 (M1903-02AMSD).

Percent recoveries were within the QC limits.

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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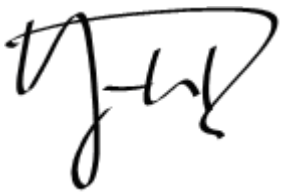

Signed:____ _____

Date:_____10/15/2013_____

REPORT NARRATIVE

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

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: M1903

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

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

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: LACHAT1
Instrument Type: WC

Description: Flow Injection Analyzer
Manufacturer: Zellweger Analytics
Model: Quik-Chem 8000

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:

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

E. Dilutions:

No sample required dilution in this SDG.

F. 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.

Signed: 

Date: 10/23/2013

Client: AECOM Technical Services, Inc.
Client Sample ID: EFF-55 093013 **Project:** NOW Corp. Site
Lab ID: M1903-01 **Collection Date:** 09/30/13 11:45

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	10/08/2013 4:23	74151
Chloroethane	ND		0.50	ug/L	1	10/08/2013 4:23	74151
1,1-Dichloroethene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
trans-1,2-Dichloroethene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
Methyl tert-butyl ether	ND		0.50	ug/L	1	10/08/2013 4:23	74151
1,1-Dichloroethane	ND		0.50	ug/L	1	10/08/2013 4:23	74151
cis-1,2-Dichloroethene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
1,1,1-Trichloroethane	ND		0.50	ug/L	1	10/08/2013 4:23	74151
1,2-Dichloroethane	ND		0.50	ug/L	1	10/08/2013 4:23	74151
Benzene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
Trichloroethene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
Toluene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
1,1,2-Trichloroethane	ND		0.50	ug/L	1	10/08/2013 4:23	74151
Tetrachloroethene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
Chlorobenzene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
Ethylbenzene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
m,p-Xylene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
o-Xylene	ND		0.50	ug/L	1	10/08/2013 4:23	74151
Surrogate: Dibromofluoromethane	97.3		88-124	%REC	1	10/08/2013 4:23	74151
Surrogate: 1,2-Dichloroethane-d4	89.1		79-115	%REC	1	10/08/2013 4:23	74151
Surrogate: Toluene-d8	101		80-114	%REC	1	10/08/2013 4:23	74151
Surrogate: Bromofluorobenzene	106		60-123	%REC	1	10/08/2013 4:23	74151

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation 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: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SW8260_25_W

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

Sample ID: **MB-74151** SampType: **MBLK** TestCode: **SW8260_25_W** Prep Date: **10/07/13 9:22** Run ID: **V5_131007B**
Client ID: **MB-74151** Batch ID: **74151** Units: **ug/L** Analysis Date: **10/07/13 23:10** SeqNo: **1987720**

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: Dibromofluoromethane	10.11		0.50	10.00	0	101	88	124	0			
Surrogate: 1,2-Dichloroethane-d4	9.270		0.50	10.00	0	92.7	79	115	0			
Surrogate: Toluene-d8	10.19		0.50	10.00	0	102	80	114	0			
Surrogate: Bromofluorobenzene	10.06		0.50	10.00	0	101	60	123	0			

Qualifiers:
ND - Not Detected at the MDL
J - Analyte detected below quanititation limits
S - Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
MDL - Method Detection Limit
RL - Reporting Limit
B - Analyte detected in the associated Method Blank

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SW8260_25_W

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

Sample ID: **LCS-74151** SampType: **LCS** TestCode: **SW8260_25_W** Prep Date: **10/07/13 9:22** Run ID: **V5_131007B**
Client ID: **LCS-74151** Batch ID: **74151** Units: **ug/L** Analysis Date: **10/07/13 21:52** SeqNo: **1987718**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	9.405	0.15	0.50	10.00	0	94.1	77	120	0			
Chloroethane	7.868	0.24	0.50	10.00	0	78.7	75	135	0			
1,1-Dichloroethene	9.959	0.19	0.50	10.00	0	99.6	81	125	0			
trans-1,2-Dichloroethene	9.996	0.14	0.50	10.00	0	100	60	137	0			
Methyl tert-butyl ether	9.876	0.13	0.50	10.00	0	98.8	61	134	0			
1,1-Dichloroethane	9.989	0.18	0.50	10.00	0	99.9	82	120	0			
cis-1,2-Dichloroethene	8.830	0.19	0.50	10.00	0	88.3	84	116	0			
1,1,1-Trichloroethane	9.665	0.11	0.50	10.00	0	96.7	80	124	0			
1,2-Dichloroethane	9.820	0.16	0.50	10.00	0	98.2	86	117	0			
Benzene	9.817	0.12	0.50	10.00	0	98.2	81	121	0			
Trichloroethene	10.11	0.13	0.50	10.00	0	101	74	123	0			
Toluene	9.711	0.14	0.50	10.00	0	97.1	88	117	0			
1,1,2-Trichloroethane	9.620	0.20	0.50	10.00	0	96.2	83	121	0			
Tetrachloroethene	9.533	0.17	0.50	10.00	0	95.3	74	115	0			
Chlorobenzene	9.599	0.13	0.50	10.00	0	96.0	83	112	0			
Ethylbenzene	9.739	0.13	0.50	10.00	0	97.4	87	110	0			
m,p-Xylene	19.39	0.22	0.50	20.00	0	96.9	87	114	0			
o-Xylene	9.608	0.17	0.50	10.00	0	96.1	84	114	0			
Surrogate: Dibromofluoromethane	9.943		0.50	10.00	0	99.4	88	124	0			
Surrogate: 1,2-Dichloroethane-d4	9.571		0.50	10.00	0	95.7	79	115	0			
Surrogate: Toluene-d8	9.797		0.50	10.00	0	98.0	80	114	0			
Surrogate: Bromofluorobenzene	9.648		0.50	10.00	0	96.5	60	123	0			

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank
J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SW8260_25_W

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

Sample ID: **LCSD-74151** SampType: **LCSD** TestCode: **SW8260_25_W** Prep Date: **10/07/13 9:22** Run ID: **V5_131007B**
Client ID: **LCSD-74151** Batch ID: **74151** Units: **ug/L** Analysis Date: **10/07/13 22:18** SeqNo: **1987719**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	10.13	0.15	0.50	10.00	0	101	77	120	9.405	7.43	40	
Chloroethane	9.151	0.24	0.50	10.00	0	91.5	75	135	7.868	15.1	40	
1,1-Dichloroethene	10.11	0.19	0.50	10.00	0	101	81	125	9.959	1.51	40	
trans-1,2-Dichloroethene	9.931	0.14	0.50	10.00	0	99.3	60	137	9.996	0.655	40	
Methyl tert-butyl ether	10.31	0.13	0.50	10.00	0	103	61	134	9.876	4.31	40	
1,1-Dichloroethane	10.30	0.18	0.50	10.00	0	103	82	120	9.989	3.1	40	
cis-1,2-Dichloroethene	9.014	0.19	0.50	10.00	0	90.1	84	116	8.830	2.06	40	
1,1,1-Trichloroethane	10.15	0.11	0.50	10.00	0	102	80	124	9.665	4.93	40	
1,2-Dichloroethane	10.21	0.16	0.50	10.00	0	102	86	117	9.820	3.92	40	
Benzene	10.02	0.12	0.50	10.00	0	100	81	121	9.817	2.07	40	
Trichloroethene	10.22	0.13	0.50	10.00	0	102	74	123	10.11	1.15	40	
Toluene	10.10	0.14	0.50	10.00	0	101	88	117	9.711	3.96	40	
1,1,2-Trichloroethane	9.745	0.20	0.50	10.00	0	97.4	83	121	9.620	1.29	40	
Tetrachloroethene	10.04	0.17	0.50	10.00	0	100	74	115	9.533	5.2	40	
Chlorobenzene	9.871	0.13	0.50	10.00	0	98.7	83	112	9.599	2.79	40	
Ethylbenzene	10.21	0.13	0.50	10.00	0	102	87	110	9.739	4.77	40	
m,p-Xylene	19.71	0.22	0.50	20.00	0	98.5	87	114	19.39	1.63	40	
o-Xylene	9.818	0.17	0.50	10.00	0	98.2	84	114	9.608	2.16	40	
Surrogate: Dibromofluoromethane	10.10		0.50	10.00	0	101	88	124	0			
Surrogate: 1,2-Dichloroethane-d4	10.32		0.50	10.00	0	103	79	115	0			
Surrogate: Toluene-d8	10.01		0.50	10.00	0	100	80	114	0			
Surrogate: Bromofluorobenzene	9.836		0.50	10.00	0	98.4	60	123	0			

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank
J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

10/23/2013

Client: AECOM Technical Services, Inc.
Client Sample ID: EFF-55 093013
Lab ID: M1903-01
Project: NOW Corp. Site
Collection Date: 09/30/13 11:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Aluminum	ND		200	ug/L	1	10/18/2013 9:10	74345
Arsenic	ND		20	ug/L	1	10/18/2013 9:10	74345
Barium	89	J	200	ug/L	1	10/18/2013 9:10	74345
Chromium	ND		20	ug/L	1	10/18/2013 9:10	74345
Copper	ND		25	ug/L	1	10/18/2013 9:10	74345
Iron	ND		200	ug/L	1	10/18/2013 9:10	74345
Manganese	84		50	ug/L	1	10/18/2013 9:10	74345
Nickel	1.6	J	50	ug/L	1	10/18/2013 9:10	74345
Zinc	ND		50	ug/L	1	10/18/2013 9:10	74345
SW846 7470A -- Mercury by FIA							**SW7470**
Mercury	ND		0.20	µg/L	1	10/17/2013 10:11	74289

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation 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

M1903

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SW6010_W

SW846 6010C -- Metals by ICP

Sample ID: **MB-74345** SampType: **MBLK** TestCode: **SW6010_W** Prep Date: **10/17/13 11:45** Run ID: **OPTIMA3_131018A**
Client ID: **MB-74345** Batch ID: **74345** Units: **ug/L** Analysis Date: **10/18/13 9:02** SeqNo: **1995247**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	87.94	66	200									J
Arsenic	ND	4.3	20									
Barium	ND	1.1	200									
Chromium	ND	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									

Sample ID: **LCS-74345** SampType: **LCS** TestCode: **SW6010_W** Prep Date: **10/17/13 11:45** Run ID: **OPTIMA3_131018A**
Client ID: **LCS-74345** Batch ID: **74345** Units: **ug/L** Analysis Date: **10/18/13 9:06** SeqNo: **1995248**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9523	66	200	9100	0	105	80	120	0			B
Arsenic	498.7	4.3	20	455.0	0	110	80	120	0			
Barium	9658	1.1	200	9100	0	106	80	120	0			
Chromium	953.3	0.64	20	910.0	0	105	80	120	0			
Copper	1187	3.6	30	1130	0	105	80	120	0			
Iron	4909	31	200	4550	0	108	80	120	0			
Manganese	2433	10	50	2270	0	107	80	120	0			
Nickel	2409	0.85	50	2270	0	106	80	120	0			
Zinc	2440	4.9	50	2270	0	107	80	120	0			

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank; J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SW6010_W

SW846 6010C -- Metals by ICP

Sample ID: **M1903-01ESD** SampType: **SD** TestCode: **SW6010_W** Prep Date: **10/17/13 11:45** Run ID: **OPTIMA3_131018A**
Client ID: **EFF-55 093013** Batch ID: **74345** Units: **ug/L** Analysis Date: **10/18/13 9:13** SeqNo: **1995250**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	330	1000	0	0	0	0	0	0	0	10	
Arsenic	ND	22	100	0	0	0	0	0	0	0	10	
Barium	89.69	5.5	1000	0	0	0	0	0	88.72	1.09	10	J
Chromium	ND	3.2	100	0	0	0	0	0	0	0	10	
Copper	ND	18	130	0	0	0	0	0	0	0	10	
Iron	ND	160	1000	0	0	0	0	0	0	0	10	
Manganese	87.15	50	250	0	0	0	0	0	83.86	3.85	10	J
Nickel	ND	4.3	250	0	0	0	0	0	1.579	0	10	
Zinc	ND	25	250	0	0	0	0	0	0	0	10	

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank
J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SW7470
SW846 7470A -- Mercury by FIA

Sample ID: **MB-74289**	SampType: **MBLK**	TestCode: **SW7470**			Prep Date: **10/15/13 12:30**				Run ID: **FIMS2_131017A**		
Client ID: **MB-74289**	Batch ID: **74289**	Units: **µg/L**			Analysis Date: **10/17/13 10:08**				SeqNo: **1995002**		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.028	0.20									

Sample ID: **LCS-74289**	SampType: **LCS**	TestCode: **SW7470**			Prep Date: **10/15/13 12:30**				Run ID: **FIMS2_131017A**		
Client ID: **LCS-74289**	Batch ID: **74289**	Units: **µg/L**			Analysis Date: **10/17/13 10:10**				SeqNo: **1995003**		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.493	0.028	0.20	4.550	0	98.7	80	120	0			

Qualifiers: ND - Not Detected at the MDL; J - Analyte detected below quanititation limits; S - Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; MDL - Method Detection Limit; RL - Reporting Limit; B - Analyte detected in the associated Method Blank

Client: AECOM Technical Services, Inc.
Client Sample ID: EFF-55 093013
Lab ID: M1903-01
Project: NOW Corp. Site
Collection Date: 09/30/13 11:45

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	10/05/2013 15:33	74137

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation 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.
Client Sample ID: INF 093013
Lab ID: M1903-02
Project: NOW Corp. Site
Collection Date: 09/30/13 11:52

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	10/05/2013 15:33	74137

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation 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

M1903

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

E1664

EPA 1664A -- Oil & Grease, HEM

Sample ID: **MB-74137**	SampType: **MBLK**	TestCode: **E1664**	Prep Date: **10/03/13 15:01**	Run ID: **MANUAL_131005A**
Client ID: **MB-74137**	Batch ID: **74137**	Units: **mg/L**	Analysis Date: **10/05/13 15:33**	SeqNo: **1986134**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease, Total Recoverable	ND	1.2	5.0									

Sample ID: **LCS-74137**	SampType: **LCS**	TestCode: **E1664**	Prep Date: **10/03/13 15:01**	Run ID: **MANUAL_131005A**
Client ID: **LCS-74137**	Batch ID: **74137**	Units: **mg/L**	Analysis Date: **10/05/13 15:33**	SeqNo: **1986135**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease, Total Recoverable	37.40	1.2	5.0	40.00	0	93.5	78	114	0			

Sample ID: **M1903-02AMS**	SampType: **MS**	TestCode: **E1664**	Prep Date: **10/03/13 15:01**	Run ID: **MANUAL_131005A**
Client ID: **INF 093013**	Batch ID: **74137**	Units: **mg/L**	Analysis Date: **10/05/13 15:33**	SeqNo: **1986148**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease, Total Recoverable	35.50	1.2	5.0	40.00	0	88.8	78	114	0			

Sample ID: **M1903-02AMSD**	SampType: **MSD**	TestCode: **E1664**	Prep Date: **10/03/13 15:01**	Run ID: **MANUAL_131005A**
Client ID: **INF 093013**	Batch ID: **74137**	Units: **mg/L**	Analysis Date: **10/05/13 15:33**	SeqNo: **1986149**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease, Total Recoverable	33.60	1.2	5.0	40.00	0	84.0	78	114	35.50	5.5	18	

Qualifiers:
ND - Not Detected at the MDL
J - Analyte detected below quanititation limits
S - Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
MDL - Method Detection Limit
RL - Reporting Limit
B - Analyte detected in the associated Method Blank

Client: AECOM Technical Services, Inc.
Client Sample ID: EFF-55 093013
Lab ID: M1903-01
Project: NOW Corp. Site
Collection Date: 09/30/13 11:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2540C -- TOTAL DISSOLVED SOLIDS							**SM2540_TDS**
Total Dissolved Solids	280		10	mg/L	1	10/04/2013 6:51	74135
SM 2540D -- TOTAL SUSPENDED SOLIDS							**SM2540_TSS**
Total Suspended Solids	ND		10	mg/L	1	10/04/2013 5:45	74136
SW846 9012B -- Total Cyanide							**SW9012_W**
Cyanide	ND		10	ug/L	1	10/07/2013 12:38	74167

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation 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

M1903

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SM2540_TDS

SM 2540C -- TOTAL DISSOLVED SOLIDS

Sample ID: **MB-74135**	SampType: **MBLK**	TestCode: **SM2540_TDS**			Prep Date: **10/03/13 16:00**			Run ID: **MANUAL_131003B**				
Client ID: **MB-74135**	Batch ID: **74135**	Units: **mg/L**			Analysis Date: **10/03/13 16:00**			SeqNo: **1988829**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	10	10									

Sample ID: **LCS-74135**	SampType: **LCS**	TestCode: **SM2540_TDS**			Prep Date: **10/03/13 16:00**			Run ID: **MANUAL_131003B**				
Client ID: **LCS-74135**	Batch ID: **74135**	Units: **mg/L**			Analysis Date: **10/03/13 17:39**			SeqNo: **1988830**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	440.0	10	10	414.0	0	106	80	120	0			

Qualifiers:
ND - Not Detected at the MDL
J - Analyte detected below quanititation limits
S - Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
MDL - Method Detection Limit
RL - Reporting Limit
B - Analyte detected in the associated Method Blank

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SM2540_TSS
SM 2540D -- TOTAL SUSPENDED SOLIDS

Sample ID: **MB-74136**	SampType: **MBLK**	TestCode: **SM2540_TSS**			Prep Date: **10/03/13 16:00**				Run ID: **MANUAL_131003C**		
Client ID: **MB-74136**	Batch ID: **74136**	Units: **mg/L**			Analysis Date: **10/03/13 16:00**				SeqNo: **1988842**		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Suspended Solids	ND	10	10									

Sample ID: **LCS-74136**	SampType: **LCS**	TestCode: **SM2540_TSS**			Prep Date: **10/03/13 16:00**				Run ID: **MANUAL_131003C**		
Client ID: **LCS-74136**	Batch ID: **74136**	Units: **mg/L**			Analysis Date: **10/03/13 18:45**				SeqNo: **1988844**		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Suspended Solids	35.00	10	10	36.50	0	95.9	80	120	0			

Qualifiers:
ND - Not Detected at the MDL
J - Analyte detected below quanititation limits
S - Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
MDL - Method Detection Limit
RL - Reporting Limit
B - Analyte detected in the associated Method Blank

CLIENT: AECOM Technical Services, Inc.
Work Order: M1903
Project: NOW Corp. Site

ANALYTICAL QC SUMMARY REPORT

SW9012_W

SW846 9012B -- Total Cyanide

Sample ID: **MB-74167**	SampType: **MBLK**	TestCode: **SW9012_W**			Prep Date: **10/05/13 9:00**			Run ID: **LACHAT1_131007A**				
Client ID: **MB-74167**	Batch ID: **74167**	Units: **ug/L**			Analysis Date: **10/07/13 12:31**			SeqNo: **1989703**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	7.5	20									

Sample ID: **LCS-74167**	SampType: **LCS**	TestCode: **SW9012_W**			Prep Date: **10/05/13 9:00**			Run ID: **LACHAT1_131007A**				
Client ID: **LCS-74167**	Batch ID: **74167**	Units: **ug/L**			Analysis Date: **10/07/13 12:33**			SeqNo: **1989704**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	102.3	7.5	20	100.0	0	102	80	120	0			

Sample ID: **LCSD-74167**	SampType: **LCSD**	TestCode: **SW9012_W**			Prep Date: **10/05/13 9:00**			Run ID: **LACHAT1_131007A**				
Client ID: **LCSD-74167**	Batch ID: **74167**	Units: **ug/L**			Analysis Date: **10/07/13 12:36**			SeqNo: **1989705**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	90.72	7.5	20	100.0	0	90.7	80	120	102.3	12	20	

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank; J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

WorkOrder: M1903

Client ID: EARTH_NY
Project: NOW Corp. Site
WO Name: NOW Corp. Site
Location: NOW_CORP,
Comments: SAMPLE -02 ADDED FOR O&G ONLY AS PER CLIENT

Case:
SDG:
PO: 6027 6639 1

HC Due: 10/21/13
Fax Due:
Fax Report: ☐

Report Level: LEVEL 2
Special Program:
EDD:

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M1903-01A	EFF-55 093013	09/30/2013 11:45	10/02/2013	Aqueous	SW8260_25_W	/				Y	VOA
M1903-01B	EFF-55 093013	09/30/2013 11:45	10/02/2013	Aqueous	E1664	/					A4
M1903-01C	EFF-55 093013	09/30/2013 11:45	10/02/2013	Aqueous	SM2540_TDS	/					A4
M1903-01C	EFF-55 093013	09/30/2013 11:45	10/02/2013	Aqueous	SM2540_TSS	/					A4
M1903-01D	EFF-55 093013	09/30/2013 11:45	10/02/2013	Aqueous	SW9012_W	/				Y	A4
M1903-01E	EFF-55 093013	09/30/2013 11:45	10/02/2013	Aqueous	SW6010_W	/ See SEL list				Y	M1
M1903-01E	EFF-55 093013	09/30/2013 11:45	10/02/2013	Aqueous	SW7470	/ See SEL list					M1
M1903-02A	INF 093013	09/30/2013 11:52	10/02/2013	Aqueous	E1664	/					A4

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

HT = Test logged in but has been placed on hold

10/03/2013 12:05 Lab Client Rep: Agnes R Huntley

M1903

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

☐ 11 Almgren Drive, Agawam, MA 01001, (413) 789-9018
☐ 8405 Benjamin Road, Ste A, Tampa, FL 33634, (813) 888-9507
☐ 646 Camp Avenue, N Kingstown, RI 02852, (401) 732-3400

Special Handling:

TAT- Indicate Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: Stephen Choiniere
AECOM
40 British American Blvd
Latham, NY 12110
Telephone #: 518 957 2200
Project Mgr. Stephen (SC) Choiniere

Invoice To: Same

P.O. No.: _____ RQN: _____

Project No.: 60276639.1
Site Name: Now Corp 13-14-008
Location: Stathsburg State: NY
Sampler(s): SRG + MJH

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8=$NaHSO_4$ 9= Deionized Water 10=H_3PO_4 11= None 12= _____

List preservative code below: 2 4 11 2 5

QA/QC Reporting Notes:

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: 8260	* Metals	TSS/TDS	O+G	Cyanide
M1903-01	EFF-55 093013	9/30/13	1145	G	GW	2	2		3	X	X	X	X	X
	INF-093013		1152				2		3	X	X	X	X	X
	TW-1 093013		1156							X				
	TW-2A 093013		1200							X				
	TW-3 093013	↓	1204	↓	↓					X				
	TB 093013	—	—		X1	↓				X				

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

QA/QC Reporting Level
☐ Level I ☐ Level II
☐ Level III ☐ Level IV
☐ Other _____

State-specific reporting standards: _____

Relinquished by:	Received by:	Date:	Time:	Temp°C
[signature] FEDEX	FEDEX	9/30/13	14:25	
FEDEX	[signature]	10/02/13	9:27	13.6

☐ EDD Format _____
☐ E-mail to _____

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

Received By: VEB	Page 01 of 00
Reviewed By: KP	Log-in Date 10/02/2013
Work Order: M1903	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.

1. Custody Seal(s)	Present / Absent
	Intact / Broken
2. Custody Seal Nos.	N/A
3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists	Present / Absent
4. Airbill	AirBill / Sticker
	Present / Absent
5. Airbill No.	FedEx 8010 0349 0327
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	13.6 °C
10. Does information on TR/COCs and sample tags agree?	Yes / No
11. Date Received at Laboratory	10/02/2013
12. Time Received	09:27

Lab Sample ID	Preservation (pH) HNO3	H2SO4	HCl	NaOH	H3PO4	VOA Matrix	Soil HeadSpace or Air Bubble > or equal to 1/4"
M1903-01	<2		<2	>12		H	
M1903-02			<2				

Sample Transfer

Fraction (1) TVOA/VOA	Fraction (2) SVOA/PEST/ARO
Area #	Area #
By	By
On	On

IR Temp Gun ID:MT-74

CoolantCondition: AMBIENT

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

Sample Condition Form

Spectrum Analytical, Inc. RI Division Sample Condition Notification

M1903

Project#: ~~60276639.1~~ VSB 10/2/13 **Date of Receipt:** 10/02/13

Client: AECOM **Received By:**

Client project #/name: NOW Corp

Unusual Occurance Description:

Cooler Recd ✓ out of temp, 13.6°C

↳ As per client lab will analyze Effluent sample only and toss other samples.

Client Contacted:

Contacted via: Phone/Fax/E-mail

Date: 4th 10/2/13 **Time:**

Contacted By: Agnus

Name of person contacted: Steve

Client Response:

Responded via: Phone/Fax/E-mail

Date: 10/2/13

Name of person responding: Steve

Responding to: Agnus

Login EFF Sample and dispose of all others

10/3 - Login in O.G for sample INF

See email

Action Taken: Sample EFF logged in for all analyses

10/3 Logged in O.G of INF

Form ID: QAF.0005 Rev. 1 04/18/13

Agnes Huntley [Warwick]

From: Choiniere, Stephen R. [Stephen.Choiniere@aecom.com]
Sent: Wednesday, October 02, 2013 11:03 AM
To: Agnes Huntley [RI]
Subject: RE: Now Corp 9/30 samples

Analyze the effluent sample only, per instructions on the chain. Toss other samples. Thanks.

From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Wednesday, October 02, 2013 10:05 AM
To: Choiniere, Stephen R.
Subject: Now Corp

Hi Steve,

We received the samples on the attached COC. The temp was determined to be 13.6 degrees C. There was ice, but it was all melted.

Shall we proceed with analysis?

Thank you,
Agnes

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499
****

Agnes Huntley [Warwick]

From: Choiniere, Stephen R. [Stephen.Choiniere@aecom.com]
Sent: Wednesday, October 02, 2013 6:27 PM
To: Agnes Huntley [RI]
Subject: FW: Now Corp 9/30 samples

If it's not too late, could you run O&G on the "INF" sample? I'm guessing temp would not be an issue for that analysis??

From: Choiniere, Stephen R.
Sent: Wednesday, October 02, 2013 11:03 AM
To: 'Agnes Huntley [RI]'
Subject: RE: Now Corp 9/30 samples

Analyze the effluent sample only, per instructions on the chain. Toss other samples. Thanks.

From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
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****

Agnes Huntley [Warwick]

From: Choiniere, Stephen R. [Stephen.Choiniere@aecom.com]
Sent: Thursday, October 03, 2013 10:07 AM
To: Agnes Huntley [RI]
Subject: RE: Now Corp 9/30 samples

Please do the O&G on inf, but no other analyses on inf. Thanks.

From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Thursday, October 03, 2013 9:19 AM
To: Choiniere, Stephen R.
Subject: RE: Now Corp 9/30 samples

I'm don't think oil & grease is affected by temp...it isn't going to go anywhere. The method does says it needs to be cooled to 0-4 degrees C.

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To: Agnes Huntley [RI]
Subject: FW: Now Corp 9/30 samples

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To: 'Agnes Huntley [RI]'
Subject: RE: Now Corp 9/30 samples

Analyze the effluent sample only, per instructions on the chain. Toss other samples. Thanks.

From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Wednesday, October 02, 2013 10:05 AM
To: Choiniere, Stephen R.
Subject: Now Corp

Hi Steve,

We received the samples on the attached COC. The temp was determined to be 13.6 degrees C. There was ice, but it was all melted.

Shall we proceed with analysis?

Thank you,
Agnes

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Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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