

# **Operation, Maintenance and Monitoring Report October 2010**

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

**Work Assignment No.  
D004445-4.1**

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

December 2010

December 3, 2010

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

**Re: NOW Corporation - Site #3-14-008  
O&M Summary Report: "October" 2010**

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 26-day period **(September 24 – October 20, 2010)**.

With the exceptions noted below, if any, the P&T system was online and operational throughout the reporting period. Approximately 259,500 gallons of water were treated during the period. Discharge from the treatment system averaged approximately 9,980 gallons per day (gpd), approximately 1,900 gpd more than the 8,050 gpd in the prior reporting period.

As of the last day of the reporting period, a total of 80,418,400 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 20, 2010. **Effluent limitations were not exceeded for any analyte.** A copy of the analytical laboratory report is attached. Table 2 summarizes selected operational data, as recorded on the sampling date.

AECOM made one site visit during the period to conduct the required system inspection, perform scheduled and/or unscheduled maintenance, and to collect water samples. The September 24 service visit was described in the previous report. Details for the current period follow:

October 20 – Monthly O&M service visit. Took building readings, collected influent and effluent samples, and observed a new drainage tile installed near the manufacturing building. The excavation and installation of the drainage tile have not affected the operation of the remediation system. A poured-concrete wall, which serves as a secondary protection against stormwater, was also observed adjacent to the manufacturing building.

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: October 20, 2010**  
**NOW Corporation Site**  
**Town of Clinton, New York**

Analytes/ Parameters	Total Influent	Effluent	Recovery Wells			Effluent Limitations	
			TW-1	TW-2A	TW-3	Monitor 6.5 to 8.5	(units) gallons standard units
Quantity treated, per day		9,981					
pH	6.8	6.8					
Oil and Grease	<0.5	<5.0	NA	NA	NA	15	mg/L
Total Cyanide	<10	<10	NA	NA	NA	10	ug/L
TDS	<b>390</b>	<b>340</b>	NA	NA	NA	1000	mg/L
TSS	<b>18</b>	<b>12</b>	NA	NA	NA	50	mg/L
Aluminum, Total	<200	<200	NA	NA	NA	2000	ug/L
Arsenic, Total	<20	<20	NA	NA	NA	50	ug/L
Barium, Total	<b>75 J</b>	<b>68 J</b>	NA	NA	NA	2000	ug/L
Chromium	<b>1.4 J</b>	<b>1.4 J</b>	NA	NA	NA	100	ug/L
Copper	<25	<25	NA	NA	NA	24	ug/L
Iron	<b>120 J</b>	<200	NA	NA	NA	600	ug/L
Mercury	<b>0.042 J</b>	<b>0.029 J</b>	NA	NA	NA	0.8	ug/L
Manganese	<b>120</b>	<b>34 J</b>	NA	NA	NA	600	ug/L
Nickel	<b>1.7 J</b>	<b>1.2 J</b>	NA	NA	NA	200	ug/L
Zinc	<b>10 J</b>	<b>8.8 J</b>	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	<b>410</b>	<0.50	<b>14</b>	<b>670</b>	<b>12</b>	5	ug/L
1,1,2-Trichloroethane	<13	<0.50	<2.5	<20	<0.50	1.2	ug/L
1,1-Dichloroethane	<b>150</b>	<0.50	<b>75</b>	<b>230</b>	<b>16</b>	5	ug/L
1,1-Dichloroethene	<b>85</b>	<0.50	<b>14</b>	<b>140</b>	<b>3.7</b>	0.5	ug/L
1,2-Dichloroethane	<13	<0.50	<2.5	<20	<0.50	1.6	ug/L
Benzene	<13	<0.50	<2.5	<20	<0.50	0.8	ug/L
Chlorobenzene	<13	<0.50	<2.5	<20	<0.50	5	ug/L
Chloroethane	<13	<0.50	<2.5	<20	<0.50	5	ug/L
cis -1,2-Dichloroethene	<b>14</b>	<0.50	<b>13</b>	<b>19 J</b>	<b>0.55</b>	5	ug/L
Ethylbenzene	<13	<0.50	<2.5	<20	<0.50	5	ug/L
Methyl tert-butyl ether	<13	<0.50	<2.5	<20	<0.50	5	ug/L
o-Xylene	<13	<0.50	<2.5	<20	<0.50	5	ug/L
p&m-Xylene	<13	<0.50	<2.5	<20	<0.50	10	ug/L
Tetrachloroethene	<13	<0.50	<2.5	<20	<0.50	1.4	ug/L
Toluene	<13	<0.50	<2.5	<20	<0.50	5	ug/L
trans -1,2-Dichloroethene	<13	<0.50	<2.5	<20	<0.50	5	ug/L
Trichloroethene	<b>330</b>	<0.50	<b>120</b>	<b>510</b>	<b>24</b>	5	ug/L
Vinyl Chloride	<13	<0.50	<2.5	<20	<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) "D" denotes analytical result for a diluted sample.
- 6) "B" denotes metal detected in method blank at concentration below the RL, but above the method detection limit.

**Table 2**  
**Summary of October 2010 O&M Data**

**NOW Corporation Site**  
**Town of Clinton, New York**

<b>Instrumentation/Readings:</b>		<b>10/20/10</b>	<b>Units</b>
<b><i>TW-1</i></b>			
	Pumping Rate	1	GPM
	Water Level Above Transducer	27.41	feet
	Flow Meter Reading	5,753,200	gallons
	Pump Pressure	85	psi
<b><i>TW-2A</i></b>			
	Pumping Rate	~14	GPM
	Water Level Above Transducer	72.85	feet
	Flow Meter Reading	18,432,500	gallons
	Pump Pressure	35	psi
<b><i>TW-3</i></b>			
	Pumping Rate	2	GPM
	Water Level Above Transducer	59.04	feet
	Flow Meter Reading	8,271,500	gallons
	Pump Pressure	80	psi
<b><i>Air Stripper</i></b>			
	Stripper Blower Pressure	22.5	inches H <sub>2</sub> O
	Air Temperature in Stripper	54	°F
	Pressure Gauge - Left Leg	1	inches H <sub>2</sub> O
	Pressure Gauge - Right Leg	2.4	inches H <sub>2</sub> O
<b><i>Effluent Flow</i></b>			
	Effluent Flow this period (calculated)	259,500	gallons
	Total Effluent Flow (calculated)	80,418,400	gallons

Report Date:  
09-Nov-10 08:00



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

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

## Laboratory Report

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

Work Order: J2105  
Project: NOW Corp. Site  
Project #:

Attn: Stephen Choiniere

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
J2105-01	EFF-102010	Aqueous	20-Oct-10 11:12	21-Oct-10 09:05
J2105-02	INF-102010	Aqueous	20-Oct-10 11:30	21-Oct-10 09:05
J2105-03	TW-1	Aqueous	20-Oct-10 11:42	21-Oct-10 09:05
J2105-04	TW-2A	Aqueous	20-Oct-10 11:46	21-Oct-10 09:05
J2105-05	TRIP BLANK	Aqueous	20-Oct-10 00:00	21-Oct-10 09:05
J2105-06	TW-3	Aqueous	20-Oct-10 11:50	21-Oct-10 09:05

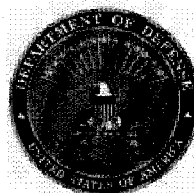
I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received.

All applicable NELAC or USEPA CLP requirements have been met.

Mitkem Laboratories 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 our web site at [www.mitkem.com](http://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
Texas	T104704422-08-TX
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-05-030



Authorized by:

A handwritten signature in black ink.

Yihai Ding  
Laboratory Director

Technical Reviewer's Initials: A handwritten signature in black ink.

## REPORT NARRATIVE

Mitekem Laboratories, a Division of Spectrum Analytical, Inc.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: J2105

SW846 8260C

### 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\_25\_PR(METHOD)

### V. INSTRUMENTATION

The following instrumentation was used to perform

Instrument Code: V1

Instrument Type: GCMS-VOA

Description: HP5890 II / HP5972

Manufacturer: Hewlett-Packard

Model: 5890 / 5972

GC Column used: 30 m X 0.25 mm ID [1.40 um thickness] DB-624 capillary column.

### 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. Duplicate sample:**

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

**F. Internal Standards:**

Internal standard peak areas were within the QC limits.

**G. Dilutions:**

The following samples were analyzed at dilution:

INF-102010 (J2105-02A) : Dilution Factor: 25

TW-1 (J2105-03A) : Dilution Factor: 5

TW-2A (J2105-04A) : Dilution Factor: 40

**H. 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 Mitkem, 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: K Chin

Date: 10/28/10

## **REPORT NARRATIVE**

Mitkem Laboratories, a Division of Spectrum Analytical, Inc.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: J2105

EPA 1664A

### **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**

### **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.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Mitkem, 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: \_\_\_\_\_

*Edward A. Gault*  
11/8/10

## REPORT NARRATIVE

Mitkem Laboratories, a Division of Spectrum Analytical, Inc.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: J2105

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: ICP\_W\_PR(3005A)

Aqueous Samples were prepared following procedures in laboratory test code: SW7470A\_PR(7470A)

### V. INSTRUMENTATION

The following instrumentation was used to perform

Instrument Code: FIMS1

Instrument Type: CVAA

Description: FIMS

Manufacturer: Perkin-Elmer

Model: FIMS

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 lab control samples were within the QC limits.

### D. 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 Mitkem, 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: \_\_\_\_\_

## REPORT NARRATIVE

Mitkem Laboratories, a Division of Spectrum Analytical, Inc.

Client : AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: J2105

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

### 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

### 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.

D. Duplicate sample:

Relative percent differences were within the QC limits for duplicate analyses for Total Dissolved Solids and Total Suspended Solids.

E. 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 Mitkem, 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: \_\_\_\_\_

*Edward A. Loh*  
11/8/12

**Mitkem Laboratories**

Date: 28-Oct-10

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-102010

Lab ID: J2105-01

Project: NOW Corp. Site

Collection Date: 10/20/10 11:12

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	µg/L	1	10/26/2010 17:21	55026
Chloroethane	ND		0.50	µg/L	1	10/26/2010 17:21	55026
1,1-Dichloroethene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
Methyl tert-butyl ether	ND		0.50	µg/L	1	10/26/2010 17:21	55026
1,1-Dichloroethane	ND		0.50	µg/L	1	10/26/2010 17:21	55026
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
1,1,1-Trichloroethane	ND		0.50	µg/L	1	10/26/2010 17:21	55026
1,2-Dichloroethane	ND		0.50	µg/L	1	10/26/2010 17:21	55026
Benzene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
Trichloroethene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
Toluene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
1,1,2-Trichloroethane	ND		0.50	µg/L	1	10/26/2010 17:21	55026
Tetrachloroethene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
Chlorobenzene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
Ethylbenzene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
m,p-Xylene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
o-Xylene	ND		0.50	µg/L	1	10/26/2010 17:21	55026
Surrogate: Dibromofluoromethane	97.8		88-124	%REC	1	10/26/2010 17:21	55026
Surrogate: 1,2-Dichloroethane-d4	106		79-115	%REC	1	10/26/2010 17:21	55026
Surrogate: Toluene-d8	100		80-114	%REC	1	10/26/2010 17:21	55026
Surrogate: Bromofluorobenzene	95.8		60-123	%REC	1	10/26/2010 17:21	55026

**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

0009

# Mitkem Laboratories

Date: 28-Oct-10

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-102010

Lab ID: J2105-02

Project: NOW Corp. Site

Collection Date: 10/20/10 11:30

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		13	µg/L	25	10/26/2010 15:49	55026
Chloroethane	ND		13	µg/L	25	10/26/2010 15:49	55026
1,1-Dichloroethene	85		13	µg/L	25	10/26/2010 15:49	55026
trans-1,2-Dichloroethene	ND		13	µg/L	25	10/26/2010 15:49	55026
Methyl tert-butyl ether	ND		13	µg/L	25	10/26/2010 15:49	55026
1,1-Dichloroethane	150		13	µg/L	25	10/26/2010 15:49	55026
cis-1,2-Dichloroethene	14		13	µg/L	25	10/26/2010 15:49	55026
1,1,1-Trichloroethane	410		13	µg/L	25	10/26/2010 15:49	55026
1,2-Dichloroethane	ND		13	µg/L	25	10/26/2010 15:49	55026
Benzene	ND		13	µg/L	25	10/26/2010 15:49	55026
Trichloroethene	330		13	µg/L	25	10/26/2010 15:49	55026
Toluene	ND		13	µg/L	25	10/26/2010 15:49	55026
1,1,2-Trichloroethane	ND		13	µg/L	25	10/26/2010 15:49	55026
Tetrachloroethene	ND		13	µg/L	25	10/26/2010 15:49	55026
Chlorobenzene	ND		13	µg/L	25	10/26/2010 15:49	55026
Ethylbenzene	ND		13	µg/L	25	10/26/2010 15:49	55026
m,p-Xylene	ND		13	µg/L	25	10/26/2010 15:49	55026
o-Xylene	ND		13	µg/L	25	10/26/2010 15:49	55026
Surrogate: Dibromofluoromethane	95.9		88-124	%REC	25	10/26/2010 15:49	55026
Surrogate: 1,2-Dichloroethane-d4	104		79-115	%REC	25	10/26/2010 15:49	55026
Surrogate: Toluene-d8	101		80-114	%REC	25	10/26/2010 15:49	55026
Surrogate: Bromofluorobenzene	97.1		60-123	%REC	25	10/26/2010 15:49	55026

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

**Mitkem Laboratories**

Date: 28-Oct-10

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-1

Lab ID: J2105-03

Project: NOW Corp. Site

Collection Date: 10/20/10 11:42

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		2.5	µg/L	5	10/26/2010 16:19	55026
Chloroethane	ND		2.5	µg/L	5	10/26/2010 16:19	55026
1,1-Dichloroethene	14		2.5	µg/L	5	10/26/2010 16:19	55026
trans-1,2-Dichloroethene	ND		2.5	µg/L	5	10/26/2010 16:19	55026
Methyl tert-butyl ether	ND		2.5	µg/L	5	10/26/2010 16:19	55026
1,1-Dichloroethane	75		2.5	µg/L	5	10/26/2010 16:19	55026
cis-1,2-Dichloroethene	13		2.5	µg/L	5	10/26/2010 16:19	55026
1,1,1-Trichloroethane	14		2.5	µg/L	5	10/26/2010 16:19	55026
1,2-Dichloroethane	ND		2.5	µg/L	5	10/26/2010 16:19	55026
Benzene	ND		2.5	µg/L	5	10/26/2010 16:19	55026
Trichloroethene	120		2.5	µg/L	5	10/26/2010 16:19	55026
Toluene	ND		2.5	µg/L	5	10/26/2010 16:19	55026
1,1,2-Trichloroethane	ND		2.5	µg/L	5	10/26/2010 16:19	55026
Tetrachloroethene	ND		2.5	µg/L	5	10/26/2010 16:19	55026
Chlorobenzene	ND		2.5	µg/L	5	10/26/2010 16:19	55026
Ethylbenzene	ND		2.5	µg/L	5	10/26/2010 16:19	55026
m,p-Xylene	ND		2.5	µg/L	5	10/26/2010 16:19	55026
o-Xylene	ND		2.5	µg/L	5	10/26/2010 16:19	55026
Surrogate: Dibromofluoromethane	99.6		88-124	%REC	5	10/26/2010 16:19	55026
Surrogate: 1,2-Dichloroethane-d4	89.7		79-115	%REC	5	10/26/2010 16:19	55026
Surrogate: Toluene-d8	102		80-114	%REC	5	10/26/2010 16:19	55026
Surrogate: Bromofluorobenzene	99.9		60-123	%REC	5	10/26/2010 16:19	55026

**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



# Mitkem Laboratories

Date: 28-Oct-10

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-2A

Lab ID: J2105-04

Project: NOW Corp. Site

Collection Date: 10/20/10 11:46

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		20	µg/L	40	10/26/2010 16:50	55026
Chloroethane	ND		20	µg/L	40	10/26/2010 16:50	55026
1,1-Dichloroethene	140		20	µg/L	40	10/26/2010 16:50	55026
trans-1,2-Dichloroethene	ND		20	µg/L	40	10/26/2010 16:50	55026
Methyl tert-butyl ether	ND		20	µg/L	40	10/26/2010 16:50	55026
1,1-Dichloroethane	230		20	µg/L	40	10/26/2010 16:50	55026
cis-1,2-Dichloroethene	19	J	20	µg/L	40	10/26/2010 16:50	55026
1,1,1-Trichloroethane	670		20	µg/L	40	10/26/2010 16:50	55026
1,2-Dichloroethane	ND		20	µg/L	40	10/26/2010 16:50	55026
Benzene	ND		20	µg/L	40	10/26/2010 16:50	55026
Trichloroethene	510		20	µg/L	40	10/26/2010 16:50	55026
Toluene	ND		20	µg/L	40	10/26/2010 16:50	55026
1,1,2-Trichloroethane	ND		20	µg/L	40	10/26/2010 16:50	55026
Tetrachloroethene	ND		20	µg/L	40	10/26/2010 16:50	55026
Chlorobenzene	ND		20	µg/L	40	10/26/2010 16:50	55026
Ethylbenzene	ND		20	µg/L	40	10/26/2010 16:50	55026
m,p-Xylene	ND		20	µg/L	40	10/26/2010 16:50	55026
o-Xylene	ND		20	µg/L	40	10/26/2010 16:50	55026
Surrogate: Dibromofluoromethane	98.4		88-124	%REC	40	10/26/2010 16:50	55026
Surrogate: 1,2-Dichloroethane-d4	102		79-115	%REC	40	10/26/2010 16:50	55026
Surrogate: Toluene-d8	99.3		80-114	%REC	40	10/26/2010 16:50	55026
Surrogate: Bromofluorobenzene	94.2		60-123	%REC	40	10/26/2010 16:50	55026

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

# Mitkem Laboratories

Date: 28-Oct-10

Client: AECOM Technical Services, Inc.

Client Sample ID: TRIP BLANK

Lab ID: J2105-05

Project: NOW Corp. Site

Collection Date: 10/20/10 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	µg/L	1	10/26/2010 17:51	55026
Chloroethane	ND		0.50	µg/L	1	10/26/2010 17:51	55026
1,1-Dichloroethene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
Methyl tert-butyl ether	ND		0.50	µg/L	1	10/26/2010 17:51	55026
1,1-Dichloroethane	ND		0.50	µg/L	1	10/26/2010 17:51	55026
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
1,1,1-Trichloroethane	ND		0.50	µg/L	1	10/26/2010 17:51	55026
1,2-Dichloroethane	ND		0.50	µg/L	1	10/26/2010 17:51	55026
Benzene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
Trichloroethene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
Toluene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
1,1,2-Trichloroethane	ND		0.50	µg/L	1	10/26/2010 17:51	55026
Tetrachloroethene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
Chlorobenzene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
Ethylbenzene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
m,p-Xylene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
o-Xylene	ND		0.50	µg/L	1	10/26/2010 17:51	55026
Surrogate: Dibromofluoromethane	101		88-124	%REC	1	10/26/2010 17:51	55026
Surrogate: 1,2-Dichloroethane-d4	104		79-115	%REC	1	10/26/2010 17:51	55026
Surrogate: Toluene-d8	102		80-114	%REC	1	10/26/2010 17:51	55026
Surrogate: Bromofluorobenzene	101		60-123	%REC	1	10/26/2010 17:51	55026

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

**Mitkem Laboratories**

Date: 28-Oct-10

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-3

Project: NOW Corp. Site

Lab ID: J2105-06

Collection Date: 10/20/10 11:50

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	µg/L	1	10/26/2010 18:22	55026
Chloroethane	ND		0.50	µg/L	1	10/26/2010 18:22	55026
1,1-Dichloroethene	3.7		0.50	µg/L	1	10/26/2010 18:22	55026
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	10/26/2010 18:22	55026
Methyl tert-butyl ether	ND		0.50	µg/L	1	10/26/2010 18:22	55026
1,1-Dichloroethane	16		0.50	µg/L	1	10/26/2010 18:22	55026
cis-1,2-Dichloroethene	0.55		0.50	µg/L	1	10/26/2010 18:22	55026
1,1,1-Trichloroethane	12		0.50	µg/L	1	10/26/2010 18:22	55026
1,2-Dichloroethane	ND		0.50	µg/L	1	10/26/2010 18:22	55026
Benzene	ND		0.50	µg/L	1	10/26/2010 18:22	55026
Trichloroethene	24		0.50	µg/L	1	10/26/2010 18:22	55026
Toluene	ND		0.50	µg/L	1	10/26/2010 18:22	55026
1,1,2-Trichloroethane	ND		0.50	µg/L	1	10/26/2010 18:22	55026
Tetrachloroethene	ND		0.50	µg/L	1	10/26/2010 18:22	55026
Chlorobenzene	ND		0.50	µg/L	1	10/26/2010 18:22	55026
Ethylbenzene	ND		0.50	µg/L	1	10/26/2010 18:22	55026
m,p-Xylene	ND		0.50	µg/L	1	10/26/2010 18:22	55026
o-Xylene	ND		0.50	µg/L	1	10/26/2010 18:22	55026
Surrogate: Dibromofluoromethane	97.1		88-124	%REC	1	10/26/2010 18:22	55026
Surrogate: 1,2-Dichloroethane-d4	113		79-115	%REC	1	10/26/2010 18:22	55026
Surrogate: Toluene-d8	101		80-114	%REC	1	10/26/2010 18:22	55026
Surrogate: Bromofluorobenzene	95.4		60-123	%REC	1	10/26/2010 18:22	55026

**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

**ANALYTICAL QC SUMMARY REPORT**  
**SW8260\_25\_W**  
**SW846 8260C -- VOC by GC-MS (25 mL Purge)**

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Recovery outside accepted recovery limits	MDL - Method Detection Limit	B - Analyte detected in the associated Method Blank
m10.08.12.A	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	RL - Reporting Limit	

CLIENT: AECOM Technical Services, Inc.

Work Order: J2105

Project: NOW Corp. Site

# ANALYTICAL QC SUMMARY REPORT

SW8260\_25\_W

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

Sample ID: LCS-55026	Sample Type: LCS	Test Code: SW8260_25_W	Prep Date: 10/26/10 9:19	Run ID: V1_101026A								
Client ID: LCS-55026	Batch ID: 55026	Units: µg/L	Analysis Date: 10/26/10 14:17	SeqNo: 1402504								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	10.53	0.15	0.50	10.00	0	105	77	120	0			
Chloroethane	10.23	0.24	0.50	10.00	0	102	75	135	0			
1,1-Dichloroethene	10.91	0.19	0.50	10.00	0	109	81	125	0			
trans-1,2-Dichloroethene	10.30	0.14	0.50	10.00	0	103	60	137	0			
Methyl tert-butyl ether	10.16	0.13	0.50	10.00	0	102	61	134	0			
1,1-Dichloroethane	10.58	0.18	0.50	10.00	0	106	82	120	0			
cis-1,2-Dichloroethene	10.30	0.19	0.50	10.00	0	103	84	116	0			
1,1,1-Trichloroethane	10.14	0.11	0.50	10.00	0	101	80	124	0			
1,2-Dichloroethane	10.76	0.16	0.50	10.00	0	108	86	117	0			
Benzene	10.02	0.12	0.50	10.00	0	100	81	121	0			
Trichloroethene	9.543	0.13	0.50	10.00	0	95.4	74	123	0			
Toluene	10.05	0.14	0.50	10.00	0	101	88	117	0			
1,1,2-Trichloroethane	10.43	0.20	0.50	10.00	0	104	83	121	0			
Tetrachloroethene	8.696	0.17	0.50	10.00	0	87.0	74	115	0			
Chlorobenzene	10.37	0.13	0.50	10.00	0	104	83	112	0			
Ethylbenzene	10.04	0.13	0.50	10.00	0	100	87	110	0			
m,p-Xylene	20.06	0.22	0.50	20.00	0	100	87	114	0			
o-Xylene	9.953	0.17	0.50	10.00	0	99.5	84	114	0			
Surrogate:	9.599		0.50	10.00	0	96.0	88	124	0			
Dibromofluoromethane												
Surrogate: 1,2-Dichloroethane-d4	9.883		0.50	10.00	0	98.8	79	115	0			
Surrogate: Toluene-d8	10.21		0.50	10.00	0	102	80	114	0			
Surrogate: Bromofluorobenzene	10.39		0.50	10.00	0	104	60	123	0			

0010

Qualifiers: ND - Not Detected at the Reporting Limit S - Recovery outside accepted recovery limits MDL - Method Detection Limit B - Analyte detected in the associated Method Blank  
m10.08.12.A J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits RL - Reporting Limit

CLIENT: AECOM Technical Services, Inc.

Work Order: J2105

Project: NOW Corp. Site

## ANALYTICAL QC SUMMARY REPORT

SW8260\_25\_W

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

Sample ID: LCSD-55026	SampType: LCSD	TestCode: SW8260_25_W	Prep Date: 10/26/10 9:19	Run ID: V1_101026A								
Client ID: LCSD-55026	Batch ID: 55026	Units: µg/L	Analysis Date: 10/26/10 14:47	SeqNo: 1402505								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	10.83	0.15	0.50	10.00	0	108	77	120	10.53	2.73	40	
Chloroethane	11.50	0.24	0.50	10.00	0	115	75	135	10.23	11.7	40	
1,1-Dichloroethene	11.48	0.19	0.50	10.00	0	115	81	125	10.91	5.12	40	
trans-1,2-Dichloroethene	10.49	0.14	0.50	10.00	0	105	60	137	10.30	1.8	40	
Methyl tert-butyl ether	10.38	0.13	0.50	10.00	0	104	61	134	10.16	2.17	40	
1,1-Dichloroethane	10.93	0.18	0.50	10.00	0	109	82	120	10.58	3.25	40	
cis-1,2-Dichloroethene	10.13	0.19	0.50	10.00	0	101	84	116	10.30	1.65	40	
1,1,1-Trichloroethane	10.20	0.11	0.50	10.00	0	102	80	124	10.14	0.605	40	
1,2-Dichloroethane	10.77	0.16	0.50	10.00	0	108	86	117	10.76	0.0701	40	
Benzene	10.38	0.12	0.50	10.00	0	104	81	121	10.02	3.49	40	
Trichloroethene	10.16	0.13	0.50	10.00	0	102	74	123	9.543	6.22	40	
Toluene	10.23	0.14	0.50	10.00	0	102	88	117	10.05	1.71	40	
1,1,2-Trichloroethane	10.01	0.20	0.50	10.00	0	100	83	121	10.43	4.07	40	
Tetrachloroethene	9.344	0.17	0.50	10.00	0	93.4	74	115	8.696	7.19	40	
Chlorobenzene	10.23	0.13	0.50	10.00	0	102	83	112	10.37	1.36	40	
Ethylbenzene	9.891	0.13	0.50	10.00	0	98.9	87	110	10.04	1.52	40	
m,p-Xylene	19.90	0.22	0.50	20.00	0	99.5	87	114	20.06	0.823	40	
o-Xylene	10.14	0.17	0.50	10.00	0	101	84	114	9.953	1.86	40	
Surrogate:	9.844		0.50	10.00	0	98.4	88	124	0			
Dibromofluoromethane												
Surrogate: 1,2-Dichloroethane-d4	10.17		0.50	10.00	0	102	79	115	0			
Surrogate: Toluene-d8	10.32		0.50	10.00	0	103	80	114	0			
Surrogate:	10.46		0.50	10.00	0	105	60	123	0			
Bromofluorobenzene												

0017

Qualifiers: ND - Not Detected at the Reporting Limit S - Recovery outside accepted recovery limits MDL - Method Detection Limit

m10.08.12.A J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits RL - Reporting Limit

B - Analyte detected in the associated Method Blank

# Mitkem Laboratories

Date: 04-Nov-10

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-102010

Lab ID: J2105-01

Project: NOW Corp. Site

Collection Date: 10/20/10 11:12

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 11/04/2010 0:00	55234

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

# Mitkem Laboratories

Date: 04-Nov-10

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-102010

Lab ID: J2105-02

Project: NOW Corp. Site

Collection Date: 10/20/10 11:30

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	11/04/2010 0:00	55234

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



## ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.

Work Order: J2105

E1664

Project: NOW Corp. Site

EPA 1664A -- Oil &amp; Grease, HEM

Sample ID: MB-55234	Sample Type: MBLK	Test Code: E1664	Prep Date: 11/03/10 16:18	Run ID: MANUAL_101104A	
Client ID: MB-55234	Batch ID: 55234	Units: mg/L	Analysis Date: 11/04/10 0:00	SeqNo: 1408375	
Analyte	Result	MDL	SPK value	SPK Ref Val	RPD Ref Val
Oil & Grease, Total Recoverable	ND	1.2	5.0		

Sample ID: LCS-55234	Sample Type: LCS	Test Code: E1664	Prep Date: 11/03/10 16:18	Run ID: MANUAL_101104A	
Client ID: LCS-55234	Batch ID: 55234	Units: mg/L	Analysis Date: 11/04/10 0:00	SeqNo: 1408373	
Analyte	Result	MDL	SPK value	SPK Ref Val	RPD Ref Val
Oil & Grease, Total Recoverable	38.00	1.2	5.0	40.00	0

Sample ID: LCSD-55234	Sample Type: LCSD	Test Code: E1664	Prep Date: 11/03/10 16:18	Run ID: MANUAL_101104A	
Client ID: LCSD-55234	Batch ID: 55234	Units: mg/L	Analysis Date: 11/04/10 0:00	SeqNo: 1408374	
Analyte	Result	MDL	SPK value	SPK Ref Val	RPD Ref Val
Oil & Grease, Total Recoverable	34.20	1.2	5.0	40.00	38.00

0020

Qualifiers: ND - Not Detected at the Reporting Limit S - Recovery outside accepted recovery limits MDL - Method Detection Limit B - Analyte detected in the associated Method Blank  
 m10.08.12.A J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits RL - Reporting Limit

**Mitkem Laboratories**

Date: 02-Nov-10

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-102010

Lab ID: J2105-01

Project: NOW Corp. Site

Collection Date: 10/20/10 11:12

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
<b>SW846 6010C -- Metals by ICP</b>				<b>SW6010_W</b>
Aluminum	ND	200 µg/L	1 10/31/2010 14:34	55124
Arsenic	ND	20 µg/L	1 10/31/2010 14:34	55124
Barium	68 J	200 µg/L	1 10/31/2010 14:34	55124
Chromium	1.4 J	20 µg/L	1 10/31/2010 14:34	55124
Copper	ND	25 µg/L	1 10/31/2010 14:34	55124
Iron	ND	200 µg/L	1 10/31/2010 14:34	55124
Manganese	34 J	50 µg/L	1 10/31/2010 14:34	55124
Nickel	1.2 J	50 µg/L	1 10/31/2010 14:34	55124
Zinc	8.8 J	50 µg/L	1 10/31/2010 14:34	55124
<b>SW846 7470A -- Mercury by FIA</b>				<b>SW7470</b>
Mercury	0.029 J	0.20 µg/L	1 10/28/2010 11:00	55080

**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

**Mitkem Laboratories****Date:** 02-Nov-10**Client:** AECOM Technical Services, Inc.**Client Sample ID:** INF-102010**Lab ID:** J2105-02**Project:** NOW Corp. Site**Collection Date:** 10/20/10 11:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
<b>SW846 6010C -- Metals by ICP</b>							<b>SW6010_W</b>
Aluminum	ND		200	µg/L	1	10/31/2010 14:37	55124
Arsenic	ND		20	µg/L	1	10/31/2010 14:37	55124
Barium	75	J	200	µg/L	1	10/31/2010 14:37	55124
Chromium	1.4	J	20	µg/L	1	10/31/2010 14:37	55124
Copper	ND		25	µg/L	1	10/31/2010 14:37	55124
Iron	120	J	200	µg/L	1	10/31/2010 14:37	55124
Manganese	120		50	µg/L	1	10/31/2010 14:37	55124
Nickel	1.7	J	50	µg/L	1	10/31/2010 14:37	55124
Zinc	10	J	50	µg/L	1	10/31/2010 14:37	55124
<b>SW846 7470A -- Mercury by FIA</b>							<b>SW7470</b>
Mercury	0.042	J	0.20	µg/L	1	10/28/2010 11:02	55080

**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

## ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.

Work Order: J2105

SW6010\_W

Project: NOW Corp. Site

SW846 6010C -- Metals by ICP

Sample ID: MB-55124	SampType: MBLK	TestCode: SW6010_W	Prep Date: 10/29/10 9:55	Run ID: OPTIMA3_101031C								
Client ID: MB-55124	Batch ID: 55124	Units: µg/L	Analysis Date: 10/31/10 13:03	SeqNo: 1405530								
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	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-55124	SampType: LCS	TestCode: SW6010_W	Prep Date: 10/29/10 9:55	Run ID: OPTIMA3_101031C								
Client ID: LCS-55124	Batch ID: 55124	Units: µg/L	Analysis Date: 10/31/10 13:06	SeqNo: 1405531								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	8857	66	200	9100	0	97.3	80	120	0			
Arsenic	452.3	4.3	20	455.0	0	99.4	80	120	0			
Barium	9082	1.1	200	9100	0	99.8	80	120	0			
Chromium	889.3	0.64	20	910.0	0	97.7	80	120	0			
Copper	1111	3.6	30	1130	0	98.3	80	120	0			
Iron	4612	31	200	4550	0	101	80	120	0			
Manganese	2228	10	50	2270	0	98.1	80	120	0			
Nickel	2196	0.85	50	2270	0	96.7	80	120	0			
Zinc	2169	4.9	50	2270	0	95.5	80	120	0			

5629

B - Analyte detected in the associated Method Blank

MDL - Method Detection Limit

S - Recovery outside accepted recovery limits

ND - Not Detected at the Reporting Limit

Qualifiers:

RL - Reporting Limit

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

m10.08.12 A

# ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.  
 Work Order: J2105  
 Project: NOW Corp. Site

SW6010\_W  
 SW846 6010C -- Metals by ICP

Sample ID: LCSD-55124	SampType: LCSD	TestCode: SW6010_W	Prep Date: 10/29/10 9:55	Run ID: OPTIMA3_101031C								
Client ID: LCSD-55124	Batch ID: 55124	Units: µg/L	Analysis Date: 10/31/10 13:09	SeqNo: 1405532								
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	8751	66	200	9100	0	96.2	80	120	8857	1.21	20	
Arsenic	454.4	4.3	20	455.0	0	99.9	80	120	452.3	0.474	20	
Barium	8978	1.1	200	9100	0	98.7	80	120	9082	1.15	20	
Chromium	880.7	0.64	20	910.0	0	96.8	80	120	889.3	0.979	20	
Copper	1095	3.6	30	1130	0	96.9	80	120	1111	1.49	20	
Iron	4552	31	200	4550	0	100	80	120	4612	1.31	20	
Manganese	2203	10	50	2270	0	97.0	80	120	2228	1.13	20	
Nickel	2156	0.85	50	2270	0	95.0	80	120	2196	1.85	20	
Zinc	2143	4.9	50	2270	0	94.4	80	120	2169	1.21	20	

6521

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

# ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.  
 Work Order: J2105  
 Project: NOW Corp. Site

SW7470  
 SW846 7470A -- Mercury by FIA

Sample ID: MB-55080	SampType: MBLK	TestCode: SW7470	Prep Date: 10/27/10 15:10	Run ID: FIMS1_101028A
Client ID: MB-55080	Batch ID: 55080	Units: µg/L	Analysis Date: 10/28/10 10:53	SeqNo: 1402286
Analyte	Result	MDL	SPK value	SPK Ref Val
Mercury	ND	0.028	0.20	0
Sample ID: LCS-55080	SampType: LCS	TestCode: SW7470	Prep Date: 10/27/10 15:10	Run ID: FIMS1_101028A
Client ID: LCS-55080	Batch ID: 55080	Units: µg/L	Analysis Date: 10/28/10 10:54	SeqNo: 1402287
Analyte	Result	MDL	SPK value	SPK Ref Val
Mercury	4.620	0.028	0.20	0
Sample ID: LCSD-55080	SampType: LCSD	TestCode: SW7470	Prep Date: 10/27/10 15:10	Run ID: FIMS1_101028A
Client ID: LCSD-55080	Batch ID: 55080	Units: µg/L	Analysis Date: 10/28/10 10:56	SeqNo: 1402288
Analyte	Result	MDL	SPK value	SPK Ref Val
Mercury	4.595	0.028	0.20	0

Qualifiers: ND - Not Detected at the Reporting Limit S - Recovery outside accepted recovery limits MDL - Method Detection Limit B - Analyte detected in the associated Method Blank  
 m10.08.12.A J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits RL - Reporting Limit

**Mitkem Laboratories**

Date: 29-Oct-10

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-102010

Lab ID: J2105-01

Project: NOW Corp. Site

Collection Date: 10/20/10 11:12

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
<b>SM 2540C -- TOTAL DISSOLVED SOLIDS</b>							<b>SM2540_TDS</b>
Total Dissolved Solids	340		10	mg/L	1	10/27/2010 1:38	55049
<b>SM 2540D -- TOTAL SUSPENDED SOLIDS</b>							<b>SM2540_TSS</b>
Total Suspended Solids	12		10	mg/L	1	10/27/2010 1:38	55050
<b>SW846 9012B -- Total Cyanide</b>							<b>SW9012_W</b>
Cyanide	ND		10	ug/L	1	10/27/2010 10:14	55028

**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

**Mitkem Laboratories**

Date: 29-Oct-10

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-102010

Lab ID: J2105-02

Project: NOW Corp. Site

Collection Date: 10/20/10 11:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
<b>SM 2540C -- TOTAL DISSOLVED SOLIDS</b>							<b>SM2540_TDS</b>
Total Dissolved Solids	390		10	mg/L	1	10/27/2010 3:55	55049
<b>SM 2540D -- TOTAL SUSPENDED SOLIDS</b>							<b>SM2540_TSS</b>
Total Suspended Solids	18		10	mg/L	1	10/27/2010 3:55	55050
<b>SW846 9012B -- Total Cyanide</b>							<b>SW9012_W</b>
Cyanide	ND		10	ug/L	1	10/27/2010 10:16	55028

**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



# ANALYTICAL QC SUMMARY REPORT

SM2540 TDS

SM 2540C -- TOTAL DISSOLVED SOLIDS

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

## ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.

Work Order: J2105

SM2540\_TSS

Project: NOW Corp. Site

SM 2540D -- TOTAL SUSPENDED SOLIDS

Sample ID: MB-55050	SampType: MBLK	TestCode: SM2540_TSS	Prep Date: 10/26/10 16:30	Run ID: MANUAL_101026B
Client ID: MB-55050	Batch ID: 55050	Units: mg/L	Analysis Date: 10/26/10 16:30	SeqNo: 1403020
Analyte	Result	MDL	SPK value	SPK Ref Val
Total Suspended Solids	ND	10	10	%RPD RPDLimit
				Qual

Sample ID: LCS-55050	SampType: LCS	TestCode: SM2540_TSS	Prep Date: 10/26/10 16:30	Run ID: MANUAL_101026B
Client ID: LCS-55050	Batch ID: 55050	Units: mg/L	Analysis Date: 10/26/10 18:47	SeqNo: 1403021
Analyte	Result	MDL	SPK value	SPK Ref Val
Total Suspended Solids	20.00	10	24.20	%RPD RPDLimit
			82.6	Qual
			0	120
			0	0

Sample ID: J2105-02CDUP	SampType: DUP	TestCode: SM2540_TSS	Prep Date: 10/26/10 16:30	Run ID: MANUAL_101026B
Client ID: INF-102010	Batch ID: 55050	Units: mg/L	Analysis Date: 10/27/10 6:12	SeqNo: 1403026
Analyte	Result	MDL	SPK value	SPK Ref Val
Total Suspended Solids	20.00	10	0	%RPD RPDLimit
			0	Qual
			0	18.00
			0	10.5
			0	20

0029

Qualifiers: ND - Not Detected at the Reporting Limit S - Recovery outside accepted recovery limits MDL - Method Detection Limit B - Analyte detected in the associated Method Blank  
m10.08.12.A J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits RL - Reporting Limit

## ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.

Work Order: J2105

Project: NOW Corp. Site

SW9012\_W

SW846 9012B -- Total Cyanide

Sample ID: MB-55028	SampType: MBLK	TestCode: SW9012_W	Prep Date: 10/26/10 9:45	Run ID: LACHAT1_101027A
Client ID: MB-55028	Batch ID: 55028	Units: ug/L	Analysis Date: 10/27/10 9:51	SeqNo: 1401210
Analyte	Result	MDL	SPK value	SPK Ref Val
Cyanide	ND	7.5	20	RPD Ref Val
				%RPD RPDLimit Qual

Sample ID: LCS-55028	SampType: LCS	TestCode: SW9012_W	Prep Date: 10/26/10 9:45	Run ID: LACHAT1_101027A
Client ID: LCS-55028	Batch ID: 55028	Units: ug/L	Analysis Date: 10/27/10 9:54	SeqNo: 1401211
Analyte	Result	MDL	SPK value	SPK Ref Val
Cyanide	98.42	7.5	20	RPD Ref Val
				%RPD RPDLimit Qual

Sample ID: LCSD-55028	SampType: LCSD	TestCode: SW9012_W	Prep Date: 10/26/10 9:45	Run ID: LACHAT1_101027A
Client ID: LCSD-55028	Batch ID: 55028	Units: ug/L	Analysis Date: 10/27/10 10:01	SeqNo: 1401183
Analyte	Result	MDL	SPK value	SPK Ref Val
Cyanide	98.53	7.5	20	RPD Ref Val
				%RPD RPDLimit Qual

B - Analyte detected in the associated Method Blank

MDL - Method Detection Limit

S - Recovery outside accepted recovery limits

ND - Not Detected at the Reporting Limit

Qualifiers:

RL - Reporting Limit

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

m10.08.12.A

**WorkOrder: J2105****10/26/2010 07:13****Mitkem Laboratories**

Client ID: EARTH\_NY

Project: NOW Corp. Site

WO Name: NOW Corp. Site

Location: NOW\_CORP,

Comments: N/A

Case:

SDG:

HC Due: 11/08/10

Fax Due:

Fax Report: ☐

Report Level: LEVEL 2

Special Program:

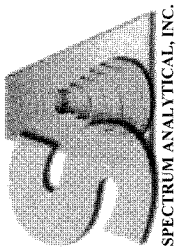
EDD:

PO: 94017.02

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J2105-01A	EFF-102010	10/20/2010 11:12	10/21/2010	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
J2105-01B	EFF-102010	10/20/2010 11:12	10/21/2010	Aqueous	SW6010_W	/ See SEL list				Y	M5
J2105-01B	EFF-102010	10/20/2010 11:12	10/21/2010	Aqueous	SW7470	/ See SEL list					M5
J2105-01C	EFF-102010	10/20/2010 11:12	10/21/2010	Aqueous	SM2540_TDS	/					B3
J2105-01C	EFF-102010	10/20/2010 11:12	10/21/2010	Aqueous	SM2540_TSS	/					B3
J2105-01D	EFF-102010	10/20/2010 11:12	10/21/2010	Aqueous	E1664	/					B3
J2105-01E	EFF-102010	10/20/2010 11:12	10/21/2010	Aqueous	SW9012_W	/				Y	B3
J2105-02A	INF-102010	10/20/2010 11:30	10/21/2010	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
J2105-02B	INF-102010	10/20/2010 11:30	10/21/2010	Aqueous	SW6010_W	/ See SEL list				Y	M5
J2105-02B	INF-102010	10/20/2010 11:30	10/21/2010	Aqueous	SW7470	/ See SEL list					M5
J2105-02C	INF-102010	10/20/2010 11:30	10/21/2010	Aqueous	SM2540_TDS	/					B3
J2105-02C	INF-102010	10/20/2010 11:30	10/21/2010	Aqueous	SM2540_TSS	/					B3
J2105-02D	INF-102010	10/20/2010 11:30	10/21/2010	Aqueous	E1664	/					B3
J2105-02E	INF-102010	10/20/2010 11:30	10/21/2010	Aqueous	SW9012_W	/				Y	B3
J2105-03A	TW-1	10/20/2010 11:42	10/21/2010	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
J2105-04A	TW-2A	10/20/2010 11:46	10/21/2010	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
J2105-05A	TRIP BLANK	10/20/2010 00:00	10/21/2010	Aqueous	SW8260_25_W	/ use for VOCs,				Y	VOA
J2105-06A	TW-3	10/20/2010 11:50	10/21/2010	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



HANIBAL TECHNOLOGY

# CHAIN OF CUSTODY RECORD

Page 1 of 1

## Special Handling:

- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - 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 Bld.  
Latham NY 12110  
Telephone #: 518-951-2200  
Project Mgr. Stephen Choiniere

Invoice To: Same  
P.O. No.: \_\_\_\_\_ RQN: \_\_\_\_\_

Project No.: 60135676 02  
Site Name: Now Corp  
Location: Staffsburg State: NY  
Sampler(s): RG

1=Na<sub>2</sub>SO<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid 7=CH<sub>3</sub>OH 11=  
8=NaHSO<sub>4</sub> 9= None 10= \_\_\_\_\_

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

List preservative code below:

2 4 9 2 5

QA/QC Reporting Notes:  
(check as needed)

## Containers:

# of VOA Vials

# of Amber Glass

# of Clear Glass

# of Plastic

## Analyses:

Metals\*

TS/TS

O+G

Cyanide

- ☐ Provide MA DEP MCP CAM Report
- ☐ Provide CT DPH RCP Report
- QA/QC Reporting Level  
☐ Standard ☐ No QC  
☐ 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
01 01	EFF-102010	10/20/10	11:12	G	GW	2	3	3	3
02 02	INF-102010	10/20/10	11:30	G	GW	2	3	3	3
03 03	TW-1	10/20/10	11:42	G	GW	2	3	3	3
04 04	TW-2A	10/20/10	11:46	G	GW	2	3	3	3
05 05	TW-3	10/20/10	11:50	G	GW	2	3	3	3
06 06	Trip Blank	10/20/10	11:50	G	GW	2	3	3	3
07 07									
08 08									
09 09									
10 10									
11 11									
12 12									
13 13									
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Relinquished by: Steve Day Received by: Felix Date: 10/20/10 Time: 15:00 Temp °C: \_\_\_\_\_  
Felix Wesley 10/21/10 9:05 \_\_\_\_\_  
☐ EDD Format ☐ E-mail to \_\_\_\_\_  
☐ Ambient ☐ Ice ☐ Refrigerated ☐ Fridge temp \_\_\_\_\_ °C ☐ Freezer temp \_\_\_\_\_ °C

**MITKEM LABORATORIES**  
Sample Condition Form

Page 1 of 1

Received By: <u>SAW</u>		Reviewed By: <u>SR</u>		Date: <u>10/30/10</u>		Mitkem Work Order #: <u>52105</u>			
Client Project: <u>Now Camp</u>				Client: <u>Earthlink</u>			Soil Headspace or Air Bubble ≥ 1/4"		
		Lab Sample ID		Preservation (pH)					VOA Matrix
				HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	HCl	NaOH	H <sub>3</sub> PO <sub>4</sub>	
1) Cooler Sealed	<u>Yes</u> / No	<u>52105</u>	<u>01</u>	<u>4.3</u>		<u>4.5</u>			<u>H</u>
			<u>02</u>	<u>4.3</u>		<u>4.5</u>			
2) Custody Seal(s)	<u>Present</u> / Absent		<u>03</u>						
	<u>Coolers</u> / Bottles		<u>04</u>						
	<u>Intact</u> / Broken		<u>05</u>						
		<u>52105</u>	<u>06</u>						<u>H</u>
3) Custody Seal Number(s)	<u>NA</u>	<div style="transform: rotate(-45deg); font-size: 2em; font-weight: bold;">CANCELED</div> <div style="font-size: 1.2em;">10-30-10</div>							
4) Chain-of-Custody	<u>Present</u> / Absent								
5) Cooler Temperature	<u>4/100</u>								
IR Temp Gun ID	<u>MT-1</u>								
Coolant Condition	<u>ICE</u>								
6) Airbill(s)	<u>Present</u> / Absent								
Airbill Number(s)	<u>8000078339089</u>								
	<u>/</u>								
7) Samples Bottles	<u>Intact</u> / Broken / Leaking								
8) Date Received	<u>10/23/10</u>								
9) Time Received	<u>9:05</u>								
Preservative Name/Lot No.:									

**VOA Matrix Key:**

US = Unpreserved Soil	A = Air
UA = Unpreserved Aqueous	H = HCl
M = MeOH	E = Encore
N = NaHSO <sub>4</sub>	F = Freeze

See Sample Condition Notification/Corrective Action Form yes no

Form ID: QAF.0006 Rad OK yes / no

**Last Page of Data Report**