

**Operation, Maintenance and Monitoring Report  
June 2009**

**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**

July 2009

August 6, 2009

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: "June" 2009**

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 29-day period (**May 19, 2009 to June 17, 2009**).

With the exceptions noted below, if any, the P&T system was online and operational throughout the reporting period. Approximately 798,400 gallons of water were treated during the period. Discharge from the treatment system averaged approximately 27,500 gallons per day (gpd). During the prior reporting period, the average discharge was 26,600 gpd.

As of the last day of the reporting period, a total of 71,324,800 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 June 17, 2009. **There were no exceedances.** A copy of the analytical laboratory's report is attached to this letter report. Table 2 summarizes selected operational data recorded on the sampling date.

AECOM made two site visits during the period to conduct the required system inspection, perform scheduled and/or unscheduled maintenance, and to collect water samples. The May 19 service visit was described in the previous report. Details for the current period follow:

May 29 – On site to respond to high water levels in recovery well TW-3. Found high pressure (85 lbs) and assumed a blockage. Fully opened gate valve to relieve blockage. Disassembled, cleaned, and reassembled flow meter to ensure it was clear. Reset flow rate.

June 17 - Monthly system inspection and water sampling. Replaced the fire extinguisher after its annual servicing. Weed whacked around building and monitoring wells.

Page 2  
Mr. Carl Hoffman  
NYSDEC

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

Sincerely,  
AECOM Technical Services Northeast, Inc.

A handwritten signature in cursive script, reading "Stephen Choiniere".

Stephen R. Choiniere  
Project Manager

**Table 1**  
**Summary of Influent and Effluent Data**  
**Sampling Date: June 17, 2009**  
**NOW Corporation Site**  
**Town of Clinton, New York**

Analytes/ Parameters	Total Influent	Effluent	Recovery Wells			Effluent Limitations	
			TW-1	TW-2A	TW-3		(units)
Quantity treated, per day		27,531				Monitor	gpd
pH	6.8	6.9	NA	NA	NA	6.5 to 8.5	standard units
Oil and Grease	<5.0	<5.0	NA	NA	NA	15	mg/L
Total Cyanide	<20	<20	NA	NA	NA	10	ug/L
TDS	<b>250</b>	<b>230</b>	NA	NA	NA	1000	mg/L
TSS	<b>11</b>	<10	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>64 J</b>	<b>61 J</b>	NA	NA	NA	2000	ug/L
Chromium	<b>9.6 J</b>	<20	NA	NA	NA	100	ug/L
Copper	<25	<25	NA	NA	NA	24	ug/L
Iron	<b>88 J</b>	<200	NA	NA	NA	600	ug/L
Mercury	<0.20	<0.20	NA	NA	NA	0.8	ug/L
Manganese	<b>95 B</b>	<b>48 BJ</b>	NA	NA	NA	600	ug/L
Nickel	<50	<50	NA	NA	NA	200	ug/L
Zinc	<b>13 J</b>	<b>12 J</b>	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	<b>460</b>	<0.50	<b>8.4</b>	<b>560</b>	<b>3</b>	5	ug/L
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	<b>0.25 J</b>	<0.50	1.2	ug/L
1,1-Dichloroethane	<b>150</b>	<0.50	<b>69</b>	<b>160</b>	<b>12</b>	5	ug/L
1,1-Dichloroethene	<b>12</b>	<0.50	<b>12</b>	<b>18</b>	<b>1.5</b>	0.5	ug/L
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	ug/L
Benzene	<0.50	<0.50	<0.50	<0.50	<0.50	0.8	ug/L
Chlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	5	ug/L
Chloroethane	<0.50	<0.50	<b>0.43 J</b>	<0.50	<0.50	5	ug/L
cis-1,2-Dichloroethene	<b>11</b>	<0.50	<b>8.4</b>	<b>18</b>	<b>0.29 J</b>	5	ug/L
Ethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	5	ug/L
Methyl tert-butyl ether	<0.50	<0.50	<0.50	<0.50	<0.50	5	ug/L
o-Xylene	<0.50	<0.50	<0.50	<0.50	<0.50	5	ug/L
p&m-Xylene	<0.50	<0.50	<0.50	<0.50	<0.50	10	ug/L
Tetrachloroethene	<0.50	<0.50	<0.50	<b>0.21 J</b>	<0.50	1.4	ug/L
Toluene	<0.50	<0.50	<0.50	<0.50	<0.50	5	ug/L
trans-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	5	ug/L
Trichloroethene	<b>380</b>	<0.50	<b>93</b>	<b>430</b>	<b>14</b>	5	ug/L
Vinyl Chloride	<b>0.58</b>	<0.50	<b>0.59</b>	<b>0.95</b>	<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 June 2009 O&M Data**

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

<b>Instrumentation/Readings:</b>		<b>6/17/09</b>	<b>Units</b>
<b><i>TW-1</i></b>			
	Pumping Rate	2	GPM
	Water Level Above Transducer	51.21	feet
	Flow Meter Reading	4,914,300	gallons
	Pump Pressure	78	psi
<b><i>TW-2A</i></b>			
	Pumping Rate	14	GPM
	Water Level Above Transducer	46.72	feet
	Flow Meter Reading	11,591,600	gallons
	Pump Pressure	7	psi
<b><i>TW-3</i></b>			
	Pumping Rate	3	GPM
	Water Level Above Transducer	29.95	feet
	Flow Meter Reading	6,857,700	gallons
	Pump Pressure	65	psi
<b><i>Air Stripper</i></b>			
	Stripper Blower Pressure	20.5	inches H <sub>2</sub> O
	Air Temperature in Stripper	48	°F
	Pressure Gauge - Left Leg	0.8	inches H <sub>2</sub> O
	Pressure Gauge - Right Leg	0.5	inches H <sub>2</sub> O
<b><i>Effluent Flow</i></b>			
	Effluent Flow this period (calculated)	798,400	gallons
	Total Effluent Flow (calculated)	71,324,800	gallons



A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

June 30, 2009

Earth Tech - AECOM  
40 British American Boulevard  
Latham, NY 12110  
Attn: Mr. Stephen Choiniere

RE: Client Project: NOW Corp. Site, 94017.02, 06/09  
Lab Project #: H1109

Dear Mr. Choiniere:

Enclosed please find the data report for the analyses of samples associated with the above referenced project.

If you have any questions, please do not hesitate to call me.

We appreciate your business.

Sincerely,

A handwritten signature in cursive script, reading "Edward A. Lawler".

Edward A. Lawler  
Laboratory Operations Manager

Report of Laboratory Analyses for AECOM Technical Services

Client Project: NOW Corp. 94017.02, 06/09

Mitkem Work Order ID: H1109

June 30, 2009

Prepared For: AECOM Technical Services  
40 British American Boulevard  
Latham, NY 12110  
Attn: Mr. Stephen Choiniere

Prepared By: Mitkem Laboratories  
175 Metro Center Boulevard  
Warwick, RI 02886  
(401) 732-3400

**Client: AECOM Technical Services**

**Client Project: NOW Corp, 94017.02, 06/09**

**Lab Work Order: H1109**

**Date samples received: 06/18/09**

### **Project Narrative**

This data report includes the analysis results for six (6) aqueous samples that were received from AECOM Technical Services on June 18, 2009. Analyses were performed per specification in the Chain of Custody form. For reference, a copy of the Mitkem Sample Log-In form is included for cross-referencing the client sample ID and laboratory sample ID.

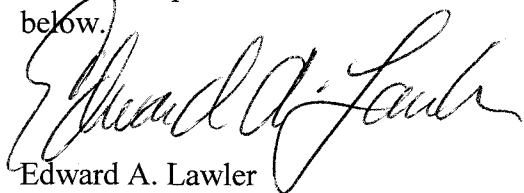
Surrogate recoveries were within the QC limits for volatile organic analyses with the exception of dibromofluoromethane in the reanalysis of sample TW-2A. Percent recoveries in laboratory control samples were within the QC limits with the exception of elevated recovery for 1,2-dichloroethane in LCS-44437, LCS-44471, and LCSD-44437. Please note that this apparent high bias does not impact sample results, as this compound was not detected in the samples. The following samples were reanalyzed at dilution: INF-061709 at 50X, TW-1 at 10X, and TW-2A at 50X.

Spike recoveries were within the QC limits in the laboratory control samples for metals, total dissolved solids, total suspended solids, cyanide and oil & grease analyses. Duplicate analyses were performed for total dissolved solids and total suspended solids on sample EFF-061709. Relative percent differences were within the QC limits. Method blank MB-44459 contained manganese below the reporting limit, but above the method detection limit. While manganese results for the samples are qualified with a "B", the method blank concentration is significantly below the concentrations in the samples.

No other unusual occurrences were noted during sample analysis.

All pages in this report have been numbered consecutively, starting with the title page and ending with a page saying only "Last Page of Data Report".

This data report has been reviewed and is authorized for release as evidenced by the signature below.



Edward A. Lawler  
Laboratory Operations Manager



**Mitkem Laboratories**

Date: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-061709

Lab ID: H1109-01

Project: NOW Corp. Site

Collection Date: 06/17/09 11:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Chloroethane	ND		0.50	µg/L	1	06/20/2009 17:59	44437
1,1-Dichloroethene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Methyl tert-butyl ether	ND		0.50	µg/L	1	06/20/2009 17:59	44437
1,1-Dichloroethane	ND		0.50	µg/L	1	06/20/2009 17:59	44437
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
1,1,1-Trichloroethane	ND		0.50	µg/L	1	06/20/2009 17:59	44437
1,2-Dichloroethane	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Benzene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Trichloroethene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Toluene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
1,1,2-Trichloroethane	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Tetrachloroethene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Chlorobenzene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Ethylbenzene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
m,p-Xylene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
o-Xylene	ND		0.50	µg/L	1	06/20/2009 17:59	44437
Surrogate: Dibromofluoromethane	120		88-124	%REC	1	06/20/2009 17:59	44437
Surrogate: 1,2-Dichloroethane-d4	107		79-115	%REC	1	06/20/2009 17:59	44437
Surrogate: Toluene-d8	97.4		80-114	%REC	1	06/20/2009 17:59	44437
Surrogate: Bromofluorobenzene	97.9		60-123	%REC	1	06/20/2009 17:59	44437

**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

0003

# Mitkem Laboratories

Date: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-061709

Lab ID: H1109-02

Project: NOW Corp. Site

Collection Date: 06/17/09 11:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	0.58		0.50	µg/L		1 06/20/2009 18:28	44437
Chloroethane	ND		0.50	µg/L		1 06/20/2009 18:28	44437
1,1-Dichloroethene	12		0.50	µg/L		1 06/20/2009 18:28	44437
trans-1,2-Dichloroethene	ND		0.50	µg/L		1 06/20/2009 18:28	44437
Methyl tert-butyl ether	ND		0.50	µg/L		1 06/20/2009 18:28	44437
1,1-Dichloroethane	110	E	0.50	µg/L		1 06/20/2009 18:28	44437
cis-1,2-Dichloroethene	11		0.50	µg/L		1 06/20/2009 18:28	44437
1,1,1-Trichloroethane	350	E	0.50	µg/L		1 06/20/2009 18:28	44437
1,2-Dichloroethane	ND		0.50	µg/L		1 06/20/2009 18:28	44437
Benzene	ND		0.50	µg/L		1 06/20/2009 18:28	44437
Trichloroethene	320	E	0.50	µg/L		1 06/20/2009 18:28	44437
Toluene	ND		0.50	µg/L		1 06/20/2009 18:28	44437
1,1,2-Trichloroethane	ND		0.50	µg/L		1 06/20/2009 18:28	44437
Tetrachloroethene	ND		0.50	µg/L		1 06/20/2009 18:28	44437
Chlorobenzene	ND		0.50	µg/L		1 06/20/2009 18:28	44437
Ethylbenzene	ND		0.50	µg/L		1 06/20/2009 18:28	44437
m,p-Xylene	ND		0.50	µg/L		1 06/20/2009 18:28	44437
o-Xylene	ND		0.50	µg/L		1 06/20/2009 18:28	44437
Surrogate: Dibromofluoromethane	120		88-124	%REC		1 06/20/2009 18:28	44437
Surrogate: 1,2-Dichloroethane-d4	99.5		79-115	%REC		1 06/20/2009 18:28	44437
Surrogate: Toluene-d8	101		80-114	%REC		1 06/20/2009 18:28	44437
Surrogate: Bromofluorobenzene	99.4		60-123	%REC		1 06/20/2009 18:28	44437

**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

0004

**Mitkem Laboratories**

Date: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-061709

Lab ID: H1109-02

Project: NOW Corp. Site

Collection Date: 06/17/09 11:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		25	µg/L		50 06/23/2009 15:15	44471
Chloroethane	ND		25	µg/L		50 06/23/2009 15:15	44471
1,1-Dichloroethene	19	J	25	µg/L		50 06/23/2009 15:15	44471
trans-1,2-Dichloroethene	ND		25	µg/L		50 06/23/2009 15:15	44471
Methyl tert-butyl ether	ND		25	µg/L		50 06/23/2009 15:15	44471
1,1-Dichloroethane	150		25	µg/L		50 06/23/2009 15:15	44471
cis-1,2-Dichloroethene	11	J	25	µg/L		50 06/23/2009 15:15	44471
1,1,1-Trichloroethane	460		25	µg/L		50 06/23/2009 15:15	44471
1,2-Dichloroethane	ND		25	µg/L		50 06/23/2009 15:15	44471
Benzene	ND		25	µg/L		50 06/23/2009 15:15	44471
Trichloroethene	380		25	µg/L		50 06/23/2009 15:15	44471
Toluene	ND		25	µg/L		50 06/23/2009 15:15	44471
1,1,2-Trichloroethane	ND		25	µg/L		50 06/23/2009 15:15	44471
Tetrachloroethene	ND		25	µg/L		50 06/23/2009 15:15	44471
Chlorobenzene	ND		25	µg/L		50 06/23/2009 15:15	44471
Ethylbenzene	ND		25	µg/L		50 06/23/2009 15:15	44471
m,p-Xylene	ND		25	µg/L		50 06/23/2009 15:15	44471
o-Xylene	ND		25	µg/L		50 06/23/2009 15:15	44471
Surrogate: Dibromofluoromethane	115		88-124	%REC		50 06/23/2009 15:15	44471
Surrogate: 1,2-Dichloroethane-d4	97.2		79-115	%REC		50 06/23/2009 15:15	44471
Surrogate: Toluene-d8	104		80-114	%REC		50 06/23/2009 15:15	44471
Surrogate: Bromofluorobenzene	98.6		60-123	%REC		50 06/23/2009 15:15	44471

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: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-1

Lab ID: H1109-03

Project: NOW Corp. Site

Collection Date: 06/17/09 11:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	0.59		0.50	µg/L	1	06/20/2009 18:58	44437
Chloroethane	0.43	J	0.50	µg/L	1	06/20/2009 18:58	44437
1,1-Dichloroethene	12		0.50	µg/L	1	06/20/2009 18:58	44437
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	06/20/2009 18:58	44437
Methyl tert-butyl ether	ND		0.50	µg/L	1	06/20/2009 18:58	44437
1,1-Dichloroethane	67	E	0.50	µg/L	1	06/20/2009 18:58	44437
cis-1,2-Dichloroethene	8.4		0.50	µg/L	1	06/20/2009 18:58	44437
1,1,1-Trichloroethane	8.4		0.50	µg/L	1	06/20/2009 18:58	44437
1,2-Dichloroethane	ND		0.50	µg/L	1	06/20/2009 18:58	44437
Benzene	ND		0.50	µg/L	1	06/20/2009 18:58	44437
Trichloroethene	95	E	0.50	µg/L	1	06/20/2009 18:58	44437
Toluene	ND		0.50	µg/L	1	06/20/2009 18:58	44437
1,1,2-Trichloroethane	ND		0.50	µg/L	1	06/20/2009 18:58	44437
Tetrachloroethene	ND		0.50	µg/L	1	06/20/2009 18:58	44437
Chlorobenzene	ND		0.50	µg/L	1	06/20/2009 18:58	44437
Ethylbenzene	ND		0.50	µg/L	1	06/20/2009 18:58	44437
m,p-Xylene	ND		0.50	µg/L	1	06/20/2009 18:58	44437
o-Xylene	ND		0.50	µg/L	1	06/20/2009 18:58	44437
Surrogate: Dibromofluoromethane	122		88-124	%REC	1	06/20/2009 18:58	44437
Surrogate: 1,2-Dichloroethane-d4	103		79-115	%REC	1	06/20/2009 18:58	44437
Surrogate: Toluene-d8	98.7		80-114	%REC	1	06/20/2009 18:58	44437
Surrogate: Bromofluorobenzene	98.8		60-123	%REC	1	06/20/2009 18:58	44437

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

0006

**Mitkem Laboratories**

Date: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-1

Lab ID: H1109-03

Project: NOW Corp. Site

Collection Date: 06/17/09 11:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		5.0	µg/L		10 06/23/2009 15:45	44471
Chloroethane	ND		5.0	µg/L		10 06/23/2009 15:45	44471
1,1-Dichloroethene	11		5.0	µg/L		10 06/23/2009 15:45	44471
trans-1,2-Dichloroethene	ND		5.0	µg/L		10 06/23/2009 15:45	44471
Methyl tert-butyl ether	ND		5.0	µg/L		10 06/23/2009 15:45	44471
1,1-Dichloroethane	69		5.0	µg/L		10 06/23/2009 15:45	44471
cis-1,2-Dichloroethene	7.4		5.0	µg/L		10 06/23/2009 15:45	44471
1,1,1-Trichloroethane	8.2		5.0	µg/L		10 06/23/2009 15:45	44471
1,2-Dichloroethane	ND		5.0	µg/L		10 06/23/2009 15:45	44471
Benzene	ND		5.0	µg/L		10 06/23/2009 15:45	44471
Trichloroethene	93		5.0	µg/L		10 06/23/2009 15:45	44471
Toluene	ND		5.0	µg/L		10 06/23/2009 15:45	44471
1,1,2-Trichloroethane	ND		5.0	µg/L		10 06/23/2009 15:45	44471
Tetrachloroethene	ND		5.0	µg/L		10 06/23/2009 15:45	44471
Chlorobenzene	ND		5.0	µg/L		10 06/23/2009 15:45	44471
Ethylbenzene	ND		5.0	µg/L		10 06/23/2009 15:45	44471
m,p-Xylene	ND		5.0	µg/L		10 06/23/2009 15:45	44471
o-Xylene	ND		5.0	µg/L		10 06/23/2009 15:45	44471
Surrogate: Dibromofluoromethane	116		88-124	%REC		10 06/23/2009 15:45	44471
Surrogate: 1,2-Dichloroethane-d4	97.1		79-115	%REC		10 06/23/2009 15:45	44471
Surrogate: Toluene-d8	104		80-114	%REC		10 06/23/2009 15:45	44471
Surrogate: Bromofluorobenzene	100		60-123	%REC		10 06/23/2009 15:45	44471

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

0007

**Mitkem Laboratories**

Date: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-2A

Lab ID: H1109-04

Project: NOW Corp. Site

Collection Date: 06/17/09 11:55

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)				SW8260_25_W
Vinyl chloride	0.95	0.50 µg/L	1 06/20/2009 19:28	44437
Chloroethane	ND	0.50 µg/L	1 06/20/2009 19:28	44437
1,1-Dichloroethene	18	0.50 µg/L	1 06/20/2009 19:28	44437
trans-1,2-Dichloroethene	ND	0.50 µg/L	1 06/20/2009 19:28	44437
Methyl tert-butyl ether	ND	0.50 µg/L	1 06/20/2009 19:28	44437
1,1-Dichloroethane	170 E	0.50 µg/L	1 06/20/2009 19:28	44437
cis-1,2-Dichloroethene	18	0.50 µg/L	1 06/20/2009 19:28	44437
1,1,1-Trichloroethane	560 E	0.50 µg/L	1 06/20/2009 19:28	44437
1,2-Dichloroethane	ND	0.50 µg/L	1 06/20/2009 19:28	44437
Benzene	ND	0.50 µg/L	1 06/20/2009 19:28	44437
Trichloroethene	510 E	0.50 µg/L	1 06/20/2009 19:28	44437
Toluene	ND	0.50 µg/L	1 06/20/2009 19:28	44437
1,1,2-Trichloroethane	0.25 J	0.50 µg/L	1 06/20/2009 19:28	44437
Tetrachloroethene	0.21 J	0.50 µg/L	1 06/20/2009 19:28	44437
Chlorobenzene	ND	0.50 µg/L	1 06/20/2009 19:28	44437
Ethylbenzene	ND	0.50 µg/L	1 06/20/2009 19:28	44437
m,p-Xylene	ND	0.50 µg/L	1 06/20/2009 19:28	44437
o-Xylene	ND	0.50 µg/L	1 06/20/2009 19:28	44437
Surrogate: Dibromofluoromethane	122	88-124 %REC	1 06/20/2009 19:28	44437
Surrogate: 1,2-Dichloroethane-d4	106	79-115 %REC	1 06/20/2009 19:28	44437
Surrogate: Toluene-d8	100	80-114 %REC	1 06/20/2009 19:28	44437
Surrogate: Bromofluorobenzene	97.8	60-123 %REC	1 06/20/2009 19:28	44437

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

0008

# Mitkem Laboratories

Date: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-2A

Lab ID: H1109-04

Project: NOW Corp. Site

Collection Date: 06/17/09 11:55

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)			SW8260_25_W	
Vinyl chloride	ND	25 µg/L	50 06/23/2009 14:45	44471
Chloroethane	ND	25 µg/L	50 06/23/2009 14:45	44471
1,1-Dichloroethene	17 J	25 µg/L	50 06/23/2009 14:45	44471
trans-1,2-Dichloroethene	ND	25 µg/L	50 06/23/2009 14:45	44471
Methyl tert-butyl ether	ND	25 µg/L	50 06/23/2009 14:45	44471
1,1-Dichloroethane	160	25 µg/L	50 06/23/2009 14:45	44471
cis-1,2-Dichloroethene	13 J	25 µg/L	50 06/23/2009 14:45	44471
1,1,1-Trichloroethane	560	25 µg/L	50 06/23/2009 14:45	44471
1,2-Dichloroethane	ND	25 µg/L	50 06/23/2009 14:45	44471
Benzene	ND	25 µg/L	50 06/23/2009 14:45	44471
Trichloroethene	430	25 µg/L	50 06/23/2009 14:45	44471
Toluene	ND	25 µg/L	50 06/23/2009 14:45	44471
1,1,2-Trichloroethane	ND	25 µg/L	50 06/23/2009 14:45	44471
Tetrachloroethene	ND	25 µg/L	50 06/23/2009 14:45	44471
Chlorobenzene	ND	25 µg/L	50 06/23/2009 14:45	44471
Ethylbenzene	ND	25 µg/L	50 06/23/2009 14:45	44471
m,p-Xylene	ND	25 µg/L	50 06/23/2009 14:45	44471
o-Xylene	ND	25 µg/L	50 06/23/2009 14:45	44471
Surrogate: Dibromofluoromethane	126 S	88-124 %REC	50 06/23/2009 14:45	44471
Surrogate: 1,2-Dichloroethane-d4	107	79-115 %REC	50 06/23/2009 14:45	44471
Surrogate: Toluene-d8	97.2	80-114 %REC	50 06/23/2009 14:45	44471
Surrogate: Bromofluorobenzene	99.1	60-123 %REC	50 06/23/2009 14:45	44471

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: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-3

Lab ID: H1109-05

Project: NOW Corp. Site

Collection Date: 06/17/09 12:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)							SW8260_25_W
Vinyl chloride	ND		0.50	µg/L	1	06/23/2009 13:16	44471
Chloroethane	ND		0.50	µg/L	1	06/23/2009 13:16	44471
1,1-Dichloroethene	1.5		0.50	µg/L	1	06/23/2009 13:16	44471
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	06/23/2009 13:16	44471
Methyl tert-butyl ether	ND		0.50	µg/L	1	06/23/2009 13:16	44471
1,1-Dichloroethane	12		0.50	µg/L	1	06/23/2009 13:16	44471
cis-1,2-Dichloroethene	0.29	J	0.50	µg/L	1	06/23/2009 13:16	44471
1,1,1-Trichloroethane	3.0		0.50	µg/L	1	06/23/2009 13:16	44471
1,2-Dichloroethane	ND		0.50	µg/L	1	06/23/2009 13:16	44471
Benzene	ND		0.50	µg/L	1	06/23/2009 13:16	44471
Trichloroethene	14		0.50	µg/L	1	06/23/2009 13:16	44471
Toluene	ND		0.50	µg/L	1	06/23/2009 13:16	44471
1,1,2-Trichloroethane	ND		0.50	µg/L	1	06/23/2009 13:16	44471
Tetrachloroethene	ND		0.50	µg/L	1	06/23/2009 13:16	44471
Chlorobenzene	ND		0.50	µg/L	1	06/23/2009 13:16	44471
Ethylbenzene	ND		0.50	µg/L	1	06/23/2009 13:16	44471
m,p-Xylene	ND		0.50	µg/L	1	06/23/2009 13:16	44471
o-Xylene	ND		0.50	µg/L	1	06/23/2009 13:16	44471
Surrogate: Dibromofluoromethane	121		88-124	%REC	1	06/23/2009 13:16	44471
Surrogate: 1,2-Dichloroethane-d4	106		79-115	%REC	1	06/23/2009 13:16	44471
Surrogate: Toluene-d8	96.3		80-114	%REC	1	06/23/2009 13:16	44471
Surrogate: Bromofluorobenzene	99.4		60-123	%REC	1	06/23/2009 13:16	44471

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: 30-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: TRIP BLANK

Lab ID: H1109-06

Project: NOW Corp. Site

Collection Date: 06/17/09 0:00

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260 -- VOC by GC-MS (25 mL Purge)				SW8260_25_W
Vinyl chloride	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Chloroethane	ND	0.50 µg/L	1 06/20/2009 17:29	44437
1,1-Dichloroethene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
trans-1,2-Dichloroethene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Methyl tert-butyl ether	ND	0.50 µg/L	1 06/20/2009 17:29	44437
1,1-Dichloroethane	ND	0.50 µg/L	1 06/20/2009 17:29	44437
cis-1,2-Dichloroethene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
1,1,1-Trichloroethane	ND	0.50 µg/L	1 06/20/2009 17:29	44437
1,2-Dichloroethane	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Benzene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Trichloroethene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Toluene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
1,1,2-Trichloroethane	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Tetrachloroethene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Chlorobenzene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Ethylbenzene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
m,p-Xylene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
o-Xylene	ND	0.50 µg/L	1 06/20/2009 17:29	44437
Surrogate: Dibromofluoromethane	117	88-124 %REC	1 06/20/2009 17:29	44437
Surrogate: 1,2-Dichloroethane-d4	102	79-115 %REC	1 06/20/2009 17:29	44437
Surrogate: Toluene-d8	98.1	80-114 %REC	1 06/20/2009 17:29	44437
Surrogate: Bromofluorobenzene	98.0	60-123 %REC	1 06/20/2009 17:29	44437

**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: H1109

SW8260\_25\_W

Project: NOW Corp. Site

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

Sample ID: MB-44437	SampType: MBLK	TestCode: SW8260_25_W	Prep Date: 06/20/2009	Run ID: V6_090620A							
Client ID: MB-44437	Batch ID: 44437	Units: µg/L	Analysis Date: 06/20/2009	SeqNo: 1055118							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.50									
Chloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Methyl tert-butyl ether	ND	0.50									
1,1-Dichloroethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Benzene	ND	0.50									
Trichloroethene	ND	0.50									
Toluene	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
Tetrachloroethene	ND	0.50									
Chlorobenzene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	0.50									
o-Xylene	ND	0.50									
Surrogate: Dibromofluoromethane	11.87	0.50	10.00	0	119	88	124	0			
Surrogate: 1,2-Dichloroethane-d4	10.66	0.50	10.00	0	107	79	115	0			
Surrogate: Toluene-d8	9.704	0.50	10.00	0	97.0	80	114	0			
Surrogate: Bromofluorobenzene	9.813	0.50	10.00	0	98.1	60	123	0			

0012

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: AECOM Technical Services, Inc.

Work Order: H1109

Project: NOW Corp. Site

## ANALYTICAL QC SUMMARY REPORT

SW8260 25\_W

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

Sample ID: MB-44471	SampType: MBLK	TestCode: SW8260_25_W	Prep Date: 06/23/2009	Run ID: V6_090623A							
Client ID: MB-44471	Batch ID: 44471	Units: µg/L	Analysis Date: 06/23/2009	SeqNo: 1056347							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.50									
Chloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Methyl tert-butyl ether	ND	0.50									
1,1-Dichloroethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Benzene	ND	0.50									
Trichloroethene	ND	0.50									
Toluene	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
Tetrachloroethene	ND	0.50									
Chlorobenzene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	0.50									
o-Xylene	ND	0.50									
Surrogate: Dibromofluoromethane	11.90	0.50	10.00	0	119	88	124	0			
Surrogate: 1,2-Dichloroethane-d4	10.54	0.50	10.00	0	105	79	115	0			
Surrogate: Toluene-d8	9.836	0.50	10.00	0	98.4	80	114	0			
Surrogate: Bromofluorobenzene	10.04	0.50	10.00	0	100	60	123	0			

0013

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: AECOM Technical Services, Inc.  
 Work Order: H1109  
 Project: NOW Corp. Site

# ANALYTICAL QC SUMMARY REPORT

SW8260\_25\_W  
 SW846 8260 -- VOC by GC-MS (25 mL Purge)

Sample ID: LCS-44437	SampType: LCS	TestCode: SW8260_25_W	Prep Date: 06/20/2009	Run ID: V6_090620A							
Client ID: LCS-44437	Batch ID: 44437	Units: µg/L	Analysis Date: 06/20/2009	SeqNo: 1055119							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	10.93	0.50	10.00	0	109	77	120	0			
Chloroethane	10.44	0.50	10.00	0	104	75	135	0			
1,1-Dichloroethene	9.814	0.50	10.00	0	98.1	81	125	0			
trans-1,2-Dichloroethene	9.915	0.50	10.00	0	99.1	60	137	0			
Methyl tert-butyl ether	10.52	0.50	10.00	0	105	61	134	0			
1,1-Dichloroethane	10.39	0.50	10.00	0	104	82	120	0			
cis-1,2-Dichloroethene	10.29	0.50	10.00	0	103	84	116	0			
1,1,1-Trichloroethane	11.64	0.50	10.00	0	116	80	124	0			
1,2-Dichloroethane	12.15	0.50	10.00	0	121	86	117	0			S
Benzene	9.973	0.50	10.00	0	99.7	81	121	0			
Trichloroethene	10.17	0.50	10.00	0	102	74	123	0			
Toluene	10.49	0.50	10.00	0	105	88	117	0			
1,1,2-Trichloroethane	11.04	0.50	10.00	0	110	83	121	0			
Tetrachloroethene	10.35	0.50	10.00	0	103	74	115	0			
Chlorobenzene	10.17	0.50	10.00	0	102	83	112	0			
Ethylbenzene	10.17	0.50	10.00	0	102	87	110	0			
m,p-Xylene	20.57	0.50	20.00	0	103	87	114	0			
o-Xylene	10.75	0.50	10.00	0	108	84	114	0			
Surrogate: Dibromofluoromethane	10.92	0.50	10.00	0	109	88	124	0			
Surrogate: 1,2-Dichloroethane-d4	10.38	0.50	10.00	0	104	79	115	0			
Surrogate: Toluene-d8	9.693	0.50	10.00	0	96.9	80	114	0			
Surrogate: Bromofluorobenzene	11.05	0.50	10.00	0	110	60	123	0			

0014

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

CLIENT: AECOM Technical Services, Inc.  
 Work Order: H1109  
 Project: NOW Corp. Site

# ANALYTICAL QC SUMMARY REPORT

SW8260\_25\_W  
 SW846 8260 -- VOC by GC-MS (25 mL Purge)

Sample ID: LCS-44471	SampType: LCS	TestCode: SW8260_25_W	Prep Date: 06/23/2009	Run ID: V6_090623A							
Client ID: LCS-44471	Batch ID: 44471	Units: µg/L	Analysis Date: 06/23/2009	SeqNo: 1056348							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	9.750	0.50	10.00	0	97.5	77	120	0			
Chloroethane	9.708	0.50	10.00	0	97.1	75	135	0			
1,1-Dichloroethene	8.750	0.50	10.00	0	87.5	81	125	0			
trans-1,2-Dichloroethene	8.924	0.50	10.00	0	89.2	60	137	0			
Methyl tert-butyl ether	10.18	0.50	10.00	0	102	61	134	0			
1,1-Dichloroethane	9.557	0.50	10.00	0	95.6	82	120	0			
cis-1,2-Dichloroethene	9.318	0.50	10.00	0	93.2	84	116	0			
1,1,1-Trichloroethane	10.67	0.50	10.00	0	107	80	124	0			
1,2-Dichloroethane	12.19	0.50	10.00	0	122	86	117	0			S
Benzene	9.100	0.50	10.00	0	91.0	81	121	0			
Trichloroethene	9.176	0.50	10.00	0	91.8	74	123	0			
Toluene	9.706	0.50	10.00	0	97.1	88	117	0			
1,1,2-Trichloroethane	10.75	0.50	10.00	0	107	83	121	0			
Tetrachloroethene	9.231	0.50	10.00	0	92.3	74	115	0			
Chlorobenzene	9.462	0.50	10.00	0	94.6	83	112	0			
Ethylbenzene	9.286	0.50	10.00	0	92.9	87	110	0			
m,p-Xylene	19.03	0.50	20.00	0	95.1	87	114	0			
o-Xylene	9.918	0.50	10.00	0	99.2	84	114	0			
Surrogate: Dibromofluoromethane	11.17	0.50	10.00	0	112	88	124	0			
Surrogate: 1,2-Dichloroethane-d4	9.942	0.50	10.00	0	99.4	79	115	0			
Surrogate: Toluene-d8	9.605	0.50	10.00	0	96.0	80	114	0			
Surrogate: Bromofluorobenzene	11.14	0.50	10.00	0	111	60	123	0			

0015

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

CLIENT: AECOM Technical Services, Inc.  
 Work Order: H1109  
 Project: NOW Corp. Site

# ANALYTICAL QC SUMMARY REPORT

SW8260\_25\_W  
 SW846 8260 -- VOC by GC-MS (25 mL Purge)

Sample ID: LCSD-44437	SampType: LCSD	TestCode: SW8260_25_W	Prep Date: 06/20/2009	Run ID: V6_090620A							
Client ID: LCSD-44437	Batch ID: 44437	Units: µg/L	Analysis Date: 06/20/2009	SeqNo: 1055120							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	11.76	0.50	10.00	0	118	77	120	10.93	7.29	40	
Chloroethane	10.96	0.50	10.00	0	110	75	135	10.44	4.86	40	
1,1-Dichloroethene	10.02	0.50	10.00	0	100	81	125	9.814	2.03	40	
trans-1,2-Dichloroethene	10.24	0.50	10.00	0	102	60	137	9.915	3.18	40	
Methyl tert-butyl ether	10.76	0.50	10.00	0	108	61	134	10.52	2.33	40	
1,1-Dichloroethane	10.43	0.50	10.00	0	104	82	120	10.39	0.41	40	
cis-1,2-Dichloroethene	10.49	0.50	10.00	0	105	84	116	10.29	1.93	40	
1,1,1-Trichloroethane	11.43	0.50	10.00	0	114	80	124	11.64	1.85	40	
1,2-Dichloroethane	11.80	0.50	10.00	0	118	86	117	12.15	2.88	40	S
Benzene	10.18	0.50	10.00	0	102	81	121	9.973	2.06	40	
Trichloroethene	10.30	0.50	10.00	0	103	74	123	10.17	1.25	40	
Toluene	10.59	0.50	10.00	0	106	88	117	10.49	1.01	40	
1,1,2-Trichloroethane	11.37	0.50	10.00	0	114	83	121	11.04	2.95	40	
Tetrachloroethene	10.38	0.50	10.00	0	104	74	115	10.35	0.325	40	
Chlorobenzene	10.23	0.50	10.00	0	102	83	112	10.17	0.545	40	
Ethylbenzene	10.38	0.50	10.00	0	104	87	110	10.17	2.04	40	
m,p-Xylene	20.87	0.50	20.00	0	104	87	114	20.57	1.43	40	
o-Xylene	10.93	0.50	10.00	0	109	84	114	10.75	1.69	40	
Surrogate: Dibromofluoromethane	10.87	0.50	10.00	0	109	88	124	0			
Surrogate: 1,2-Dichloroethane-d4	10.72	0.50	10.00	0	107	79	115	0			
Surrogate: Toluene-d8	9.752	0.50	10.00	0	97.5	80	114	0			
Surrogate: Bromofluorobenzene	10.80	0.50	10.00	0	108	60	123	0			

0016

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

# Mitkem Laboratories

Date: 29-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-061709

Lab ID: H1109-01

Project: NOW Corp. Site

Collection Date: 06/17/09 11:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 1664 -- Oil & Grease, HEM							E1664
Oil & Grease, Total Recoverable	ND		5.0	mg/L	1	06/29/2009 0:00	44540

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-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-061709

Lab ID: H1109-02

Project: NOW Corp. Site

Collection Date: 06/17/09 11:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 1664 -- Oil & Grease, HEM							E1664
Oil & Grease, Total Recoverable	ND		5.0	mg/L	1	06/29/2009 0:00	44540

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: H1109

E1664

Project: NOW Corp. Site

EPA 1664 -- Oil &amp; Grease, HEM

Sample ID: MB-44540	SampType: MBLK	TestCode: E1664	Prep Date: 6/26/2009	Run ID: MANUAL_090629B
Client ID: MB-44540	Batch ID: 44540	Units: mg/L	Analysis Date: 6/29/2009	SeqNo: 1058670
Analyte		Result PQL	SPK Ref Val	SPK value
		ND	%REC LowLimit HighLimit	RPD Ref Val %RPD RPDLimit Qual
			5.0	

Oil &amp; Grease, Total Recoverable

Sample ID: LCS-44540	SampType: LCS	TestCode: E1664	Prep Date: 6/26/2009	Run ID: MANUAL_090629B
Client ID: LCS-44540	Batch ID: 44540	Units: mg/L	Analysis Date: 6/29/2009	SeqNo: 1058668
Analyte		Result PQL	SPK Ref Val	SPK value
		32.90	0	40.00
			%REC LowLimit HighLimit	RPD Ref Val %RPD RPDLimit Qual
			82.3 78 114	0

Oil &amp; Grease, Total Recoverable

Sample ID: LCSD-44540	SampType: LCSD	TestCode: E1664	Prep Date: 6/26/2009	Run ID: MANUAL_090629B
Client ID: LCSD-44540	Batch ID: 44540	Units: mg/L	Analysis Date: 6/29/2009	SeqNo: 1058669
Analyte		Result PQL	SPK Ref Val	SPK value
		35.10	0	40.00
			%REC LowLimit HighLimit	RPD Ref Val %RPD RPDLimit Qual
			87.8 78 114	32.90 6.47 18

Oil &amp; Grease, Total Recoverable

0019

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**Mitkem Laboratories**

Date: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-061709

Project: NOW Corp. Site

Lab ID: H1109-01

Collection Date: 06/17/09 11:20

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 6010 -- Metals by ICP				SW6010_W
Aluminum	ND	200 µg/L	1 06/23/2009 10:21	44459
Arsenic	ND	20 µg/L	1 06/23/2009 10:21	44459
Barium	61 J	200 µg/L	1 06/23/2009 10:21	44459
Chromium	ND	20 µg/L	1 06/23/2009 10:21	44459
Copper	ND	25 µg/L	1 06/23/2009 10:21	44459
Iron	ND	200 µg/L	1 06/23/2009 10:21	44459
Manganese	48 BJ	50 µg/L	1 06/23/2009 10:21	44459
Nickel	ND	50 µg/L	1 06/23/2009 10:21	44459
Zinc	12 J	50 µg/L	1 06/23/2009 10:21	44459
SW846 7470 -- Mercury by FIA				SW7470
Mercury	ND	0.20 µg/L	1 06/23/2009 6:29	44461

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: 26-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-061709

Lab ID: H1109-02

Project: NOW Corp. Site

Collection Date: 06/17/09 11:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
<b>SW846 6010 -- Metals by ICP</b>							<b>SW6010_W</b>
Aluminum	ND		200	µg/L	1	06/23/2009 10:24	44459
Arsenic	ND		20	µg/L	1	06/23/2009 10:24	44459
Barium	64	J	200	µg/L	1	06/23/2009 10:24	44459
Chromium	9.6	J	20	µg/L	1	06/23/2009 10:24	44459
Copper	ND		25	µg/L	1	06/23/2009 10:24	44459
Iron	88	J	200	µg/L	1	06/23/2009 10:24	44459
Manganese	95	B	50	µg/L	1	06/23/2009 10:24	44459
Nickel	ND		50	µg/L	1	06/23/2009 10:24	44459
Zinc	13	J	50	µg/L	1	06/23/2009 10:24	44459
<b>SW846 7470 -- Mercury by FIA</b>							<b>SW7470</b>
Mercury	ND		0.20	µg/L	1	06/23/2009 6:31	44461

**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: H1109

SW6010\_W

Project: NOW Corp. Site

SW846 6010 -- Metals by ICP

Sample ID: MB-44459	SampType: MBLK	TestCode: SW6010_W	Prep Date: 6/22/2009	Run ID: OPTIMA3_090623C							
Client ID: MB-44459	Batch ID: 44459	Units: µg/L	Analysis Date: 6/23/2009	SeqNo: 1056431							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	200									
Arsenic	ND	20									
Barium	ND	200									
Chromium	ND	20									
Copper	ND	30									
Iron	ND	200									
Manganese	1.758	50									
Nickel	ND	50									
Zinc	ND	50									

J

Sample ID: LCS-44459	SampType: LCS	TestCode: SW6010_W	Prep Date: 6/22/2009	Run ID: OPTIMA3_090623C							
Client ID: LCS-44459	Batch ID: 44459	Units: µg/L	Analysis Date: 6/23/2009	SeqNo: 1056432							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9292	200	9100	0	102	80	120	0			
Arsenic	488.9	20	455.0	0	107	80	120	0			
Barium	9573	200	9100	0	105	80	120	0			
Chromium	963.8	20	910.0	0	106	80	120	0			
Copper	1183	30	1130	0	105	80	120	0			
Iron	4861	200	4550	0	107	80	120	0			
Manganese	2456	50	2270	0	108	80	120	0			B
Nickel	2407	50	2270	0	106	80	120	0			
Zinc	2434	50	2270	0	107	80	120	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

0022

# ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.  
 Work Order: H1109  
 Project: NOW Corp. Site

SW7470  
 SW846 7470 -- Mercury by FIA

Sample ID: MB-44461	SampType: MBLK	TestCode: SW7470	Prep Date: 6/22/2009	Run ID: FIMS1_090623B
Client ID: MB-44461	Batch ID: 44461	Units: µg/L	Analysis Date: 6/23/2009	SeqNo: 1055913
Analyte	Result	PQL	SPK value	SPK Ref Val
Mercury	ND	0.20		
Sample ID: LCS-44461	SampType: LCS	TestCode: SW7470	Prep Date: 6/22/2009	Run ID: FIMS1_090623B
Client ID: LCS-44461	Batch ID: 44461	Units: µg/L	Analysis Date: 6/23/2009	SeqNo: 1055914
Analyte	Result	PQL	SPK value	SPK Ref Val
Mercury	4.114	0.20	4.550	
			90.4	120
			0	0
			RPD Ref Val	%RPD RPDLimit
				Qual

0023

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

# Mitkem Laboratories

Date: 23-Jun-09

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-061709

Lab ID: H1109-01

Project: NOW Corp. Site

Collection Date: 06/17/09 11:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
<b>SM 2540C -- TOTAL DISSOLVED SOLIDS</b>							<b>SM2540_TDS</b>
Total Dissolved Solids	230		10	mg/L		1 06/19/2009 16:42	44429
<b>SM 2540D -- TOTAL SUSPENDED SOLIDS</b>							<b>SM2540_TSS</b>
Total Suspended Solids	ND		10	mg/L		1 06/19/2009 16:36	44430
<b>SW846 9012 -- Total Cyanide</b>							<b>SW9012_W</b>
Cyanide	ND		20	µg/L		1 06/22/2009 14:48	44462

**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

0024

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-061709

Lab ID: H1109-02

Project: NOW Corp. Site

Collection Date: 06/17/09 11:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2540C -- TOTAL DISSOLVED SOLIDS							SM2540_TDS
Total Dissolved Solids	250		10	mg/L	1	06/19/2009 16:54	44429
SM 2540D -- TOTAL SUSPENDED SOLIDS							SM2540_TSS
Total Suspended Solids	11		10	mg/L	1	06/19/2009 16:43	44430
SW846 9012 -- Total Cyanide							SW9012_W
Cyanide	ND		20	µg/L	1	06/22/2009 14:50	44462

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 - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	



**CLIENT:** AECOM Technical Services, Inc.

**Work Order:** H1109

**Project:** NOW Corp. Site

**Qualifiers:**

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

B - Analyte detected in the associated Method Blank

# ANALYTICAL QC SUMMARY REPORT

CLIENT: AECOM Technical Services, Inc.  
 Work Order: H1109  
 Project: NOW Corp. Site

SW9012\_W  
 SW846 9012 -- Total Cyanide

Sample ID: MB-44462	SampType: MBLK	TestCode: SW9012_W	Prep Date: 6/22/2009	Run ID: LACHAT1_090622A
Client ID: MB-44462	Batch ID: 44462	Units: µg/L	Analysis Date: 6/22/2009	SeqNo: 1055679
Analyte	Result	PQL	SPK Ref Val	%REC LowLimit HighLimit
Cyanide	ND	20	SPK value	RPD Ref Val %RPD RPDLimit Qual
Sample ID: LCS-44462	SampType: LCS	TestCode: SW9012_W	Prep Date: 6/22/2009	Run ID: LACHAT1_090622A
Client ID: LCS-44462	Batch ID: 44462	Units: µg/L	Analysis Date: 6/22/2009	SeqNo: 1055694
Analyte	Result	PQL	SPK Ref Val	%REC LowLimit HighLimit
Cyanide	110.6	20	SPK value	RPD Ref Val %RPD RPDLimit Qual
			100.0	111 80 120 0

0028

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

Client ID: EARTH\_NY

Project: NOW Corp. Site

Location:

Comments: N/A

Case:

SDG:

PO: 94017.02

HC Due: 07/06/09

Report Level: LEVEL 2

Fax Due: EDD:

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Lab Test Comments	HS	HT	MS	SEL	Storage
H1109-01A	EFF-061709	06/17/2009 11:20	06/18/2009	Aqueous	SW8260_25_W	use for VOCs,				<input checked="" type="checkbox"/>	VOA
H1109-01B	EFF-061709	06/17/2009 11:20	06/18/2009	Aqueous	SM2540_TDS					<input type="checkbox"/>	F2
					SM2540_TSS					<input type="checkbox"/>	F2
H1109-01C	EFF-061709	06/17/2009 11:20	06/18/2009	Aqueous	SW9012_W					<input checked="" type="checkbox"/>	F2
H1109-01D	EFF-061709	06/17/2009 11:20	06/18/2009	Aqueous	SW6010_W	See SEL list				<input checked="" type="checkbox"/>	M5
					SW7470	See SEL list				<input type="checkbox"/>	M5
H1109-01E	EFF-061709	06/17/2009 11:20	06/18/2009	Aqueous	E1664					<input type="checkbox"/>	F2
H1109-02A	INF-061709	06/17/2009 11:40	06/18/2009	Aqueous	SW8260_25_W	use for VOCs,				<input checked="" type="checkbox"/>	VOA
H1109-02B	INF-061709	06/17/2009 11:40	06/18/2009	Aqueous	SM2540_TDS					<input type="checkbox"/>	F2
					SM2540_TSS					<input type="checkbox"/>	F2
H1109-02C	INF-061709	06/17/2009 11:40	06/18/2009	Aqueous	SW9012_W					<input checked="" type="checkbox"/>	F2
H1109-02D	INF-061709	06/17/2009 11:40	06/18/2009	Aqueous	SW6010_W	See SEL list				<input checked="" type="checkbox"/>	M5
					SW7470	See SEL list				<input type="checkbox"/>	M5
H1109-02E	INF-061709	06/17/2009 11:40	06/18/2009	Aqueous	E1664					<input type="checkbox"/>	F2
H1109-03A	TW-1	06/17/2009 11:50	06/18/2009	Aqueous	SW8260_25_W	use for VOCs,				<input checked="" type="checkbox"/>	VOA
H1109-04A	TW-2A	06/17/2009 11:55	06/18/2009	Aqueous	SW8260_25_W	use for VOCs,				<input checked="" type="checkbox"/>	VOA
H1109-05A	TW-3	06/17/2009 12:00	06/18/2009	Aqueous	SW8260_25_W	use for VOCs,				<input checked="" type="checkbox"/>	VOA

HS = Sample logged in but all tests have been placed on hold

HT = Sample/Test logged in but test has been placed on hold

# Mitkem Laboratories

25/Jun/09 13:35

WorkOrder: H1109

Client ID: EARTH\_NY

Project: NOW Corp. Site

Location:

Comments: N/A

Case:

SDG:

PO: 94017.02

HC Due: 07/06/09

Fax Due:

Report Level: LEVEL 2

EDD:

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Lab Test Comments	HS	HT	MS	SEL	Storage
H1109-06A	TRIP BLANK	06/17/2009 0:00	06/18/2009	Aqueous	SW8260_25_W	use for VOCs,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	VOA



HS = Sample logged in but all tests have been placed on hold  
HT = Sample/Test logged in but test has been placed on hold



**MITKEM LABORATORIES**  
**Sample Condition Form**

Page 1 of 1

Received By: <u>VEG</u>		Reviewed By: <u>WVL</u>		Date: <u>6/18/09</u>		MITKEM Workorder #: <u>H1109</u>		
Client Project: <u>NOW CORP</u>				Client: <u>Earth</u>			Soil Headspace or Air Bubbles ≥ 1/4"	
				Preservation (pH)				
		Lab Sample ID	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	HCl	NaOH	H <sub>3</sub> PO <sub>4</sub>	VOA Matrix
1) Cooler Sealed <u>(Yes)</u> No		<u>H1109</u> 01	<u>22</u>		<u>&lt;2</u>	<u>712</u>		<u>H</u>
		<u>↓</u> 02	<u>&lt;2</u>		<u>&lt;2</u>	<u>712</u>		<u>↓</u>
2) Custody Seal(s) <u>(Present)</u> / Absent		03						
<u>(Coolers)</u> / Bottles		04						
<u>(Intact)</u> / Broken		05						<u>↓</u>
		<u>H1109</u> 06						<u>H</u>
3) Custody Seal Number(s) <u>N/A</u>								
4) Chain-of-Custody <u>(Present)</u> / Absent								
5) Cooler Temperature <u>2°C</u>								
Coolant Condition <u>ICE</u>								
6) Airbill(s) <u>(Present)</u> / Absent								
Airbill Number(s) <u>FDEX</u>								
<u>8655 6383 0918</u>								
7) Sample Bottles <u>(Intact)</u> / Broken / Leaking								
8) Date Received <u>6/18/09</u>								
9) Time Received <u>9:30</u>								
Preservative Name/Lot No:								

**VOA Matrix Key:**

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

See Sample Condition Notification/Corrective Action Form    yes (no)

Rad OK    yes/ no

**Last Page of Data Report**