Operation, Maintenance and Monitoring Report March 2011

NOW Corporation Site 3-14-008

Work Assignment No. D004445-4.2

Prepared for:

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

Prepared by:

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



May 13, 2011

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

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

Dear Mr. Hoffman:

This monthly summary report describes the operation, monitoring and maintenance (OM&M) of the remedial system at the NOW Corporation site in the Town of Clinton, New York, for a 32-day period (February 25 – March 29, 2011).

With the exceptions noted below, if any, the P&T system was online and operational throughout the reporting period. Approximately 836,900 gallons of water were treated during the period. Discharge from the treatment system averaged approximately 26,150 gallons per day (gpd), higher than the 19,960 gpd in the prior reporting period.

As of the last day of the reporting period, a total of 83,315,000 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 March 29, 2011. **Effluent limitations were not exceeded for any analyte.** Table 2 and Table 3 summarize selected operational data and quarterly groundwater levels, respectively, as recorded on the sampling date. Monitoring well locations are shown on Figure 1.

AECOM made one site visit during the period to conduct the required system inspection, perform scheduled maintenance, perform groundwater level measurements, and to collect water samples. The February 25 service visit was described in the previous report. Details for the current period follow:

<u>March 29</u> – Monthly O&M service visit. Recorded instrument/meter readings. Collected water level readings and influent and effluent samples. Lubricated the hinges on the monitoring well locking covers, in anticipation of annual sampling event next month (April).

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: March 29, 2011
NOW Corporation Site
Town of Clinton, New York

Analytes/	Total		Recovery Wells		Effluent		
Parameters	Influent	Effluent	TW-1	TW-2A	TW-3	Lim	itations
							(units)
Quantity treated, per day		26,153				Monitor	gallons
рН	6.8	7.1				6.5 to 8.5	standard units
Oil and Grease	< 5.0	< 5.0	NA	NA	NA	15	mg/L
Total Cyanide	<10	<10	NA	NA	NA	10	ug/L
TDS	270	260	NA	NA	NA	1000	mg/L
TSS	11	<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	61 J	59 J	NA	NA	NA	2000	ug/L
Chromium	<20	< 20	NA	NA	NA	100	ug/L
Copper	< 30	<25	NA	NA	NA	24	ug/L
Iron	47 J	< 200	NA	NA	NA	600	ug/L
Mercury	< 0.20	< 0.20	NA	NA	NA	0.8	ug/L
Manganese	95	29 J	NA	NA	NA	600	ug/L
Nickel	< 50	< 50	NA	NA	NA	200	ug/L
Zinc	11 J	10 J	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	190	< 0.50	6	320	2.8	5	ug/L
1,1,2-Trichloroethane	<8	< 0.50	< 2.5	<13	< 0.50	1.2	ug/L
1,1-Dichloroethane	83	< 0.50	50	130	8	5	ug/L
1,1-Dichloroethene	19	< 0.50	11	37	1.3	0.5	ug/L
1,2-Dichloroethane	<8	< 0.50	< 2.5	<13	< 0.50	1.6	ug/L
Benzene	<8	< 0.50	< 2.5	<13	< 0.50	0.8	ug/L
Chlorobenzene	<8	< 0.50	< 2.5	<13	< 0.50	5	ug/L
Chloroethane	<8	< 0.50	< 2.5	<13	< 0.50	5	ug/L
cis -1,2-Dichloroethene	8.3	< 0.50	10	<13	< 0.50	5	ug/L
Ethylbenzene	<8	< 0.50	< 2.5	<13	< 0.50	5	ug/L
Methyl tert-butyl ether	<8	< 0.50	< 2.5	<13	< 0.50	5	ug/L
o-Xylene	<8	< 0.50	< 2.5	<13	< 0.50	5	ug/L
m,p-Xylene	<8	< 0.50	< 2.5	<13	< 0.50	10	ug/L
Tetrachloroethene	<8	< 0.50	< 2.5	<13	< 0.50	1.4	ug/L
Toluene	<8	< 0.50	< 2.5	<13	< 0.50	5	ug/L
trans -1,2-Dichloroethene	<8	< 0.50	< 2.5	<13	< 0.50	5	ug/L
Trichloroethene	210	< 0.50	99	350	7.3	5	ug/L
Vinyl Chloride	<8	< 0.50	< 2.5	<13	< 0.50	0.6	ug/L

Notes:

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

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Table 2 Summary of March 2011 O&M Data

NOW Corporation Site Town of Clinton, New York

Instrumer	ntation/Readings:	3/29/11	Units
TW-1			
	Pumping Rate	3	GPM
	Water Level Above Transducer	15.82	feet
	Flow Meter Reading	6,032,600	gallons
	Pump Pressure	75	psi
TW-2A			
	Pumping Rate	~14	GPM
	Water Level Above Transducer	52.59	feet
	Flow Meter Reading	20,533,200	gallons
	Pump Pressure	2	psi
TW-3			
	Pumping Rate	4	GPM
	Water Level Above Transducer	27.44	feet
	Flow Meter Reading	8,788,100	gallons
	Pump Pressure	62	psi
Air Strippe	er		
	Stripper Blower Pressure	21.5	inches H ₂ O
	Air Temperature in Stripper	47	$^{\circ}\mathrm{F}$
	Pressure Gauge - Left Leg	1.8	inches H ₂ O
	Pressure Gauge - Right Leg	3.5	inches H ₂ O
Effluent F	low		
	Effluent Flow this period (calculated)	836,900	gallons
	Total Effluent Flow (calculated)	83,315,100	gallons

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Table 3
March 2011 Groundwater Levels

NOW Corporation Site Town of Clinton, New York

	MP	3/2	9/11
Well ID	Elevation	Depth to Water	GW Elevation
		(Ft below MP)	
MW-1	289.50	9.10	280.40
MW-2	332.51	25.40	307.11
MW-3	312.83	22.30	290.53
MW-3S	312.51	20.11	292.40
MW-4	298.29	20.42	277.87
MW-4D	298.16	20.22	277.94
MW-5	285.48	17.70	267.78
MW-6S	287.90	3.75	284.15
MW-6D	287.25	5.70	281.55
MW-7S	292.12	15.30	276.82
MW-7D	292.54	38.46	254.08
OW-1	307.75	43.71	264.04
OW-2	305.96	66.49	239.47
OW-6	294.81	5.75	289.06
IW-1	312.46	24.22	288.24
IW-2	306.56	35.07	271.49

Note: N/A indicates data are not available.

MP denotes measuring point.

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✓ Final Repo	ort
\square Re-Issued	Report
Revised R	enort

30-Mar-11 08:55

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

Laboratory Report

AECOM Technical Services, Inc. 40 British American Boulevard

Latham, NY 12110

Attn: Stephen Choiniere

Work Order: K0479

Project: NOW Corp. Site

Project #:

Aqueous

Laboratory ID	Client Sample ID	<u>Matrix</u>	Date Sampled	Date Received
K0479-01	EFF-032911	Aqueous	29-Mar-11 11:35	30-Mar-11 08:55
K0479-02	INF-032911	Aqueous	29-Mar-11 11:46	30-Mar-11 08:55
K0479-03	TW-1	Aqueous	29-Mar-11 12:05	30-Mar-11 08:55
K0479-04	TW-2A	Aqueous	 29-Mar-11 12:10	30-Mar-11 08:55
K0479-05	TW-3	Aqueous	29-Mar-11 12:15	30-Mar-11 08:55

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

All applicable NELAC or USEPA CLP requirments have been meet.

K0479-06 TRIP BLANK

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 on our web site at www.mitkem.com.

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

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Pennsylvania	68-00520
Rhode Island	LAI00301
Texas	T104704422-08-TX
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-05-030





Authorized by:

29-Mar-11 00:00

Yihai Ding Laboratory Director

REPORT NARRATIVE

Mitkem Laboratories, a Division of Spectrum Analytical, Inc.

Client: AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: K0479

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

I. SAMPLE RECEIPT

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

II. HOLDING TIMES

A. Sample Preparation:

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

B. Sample Analysis:

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

III. METHODS

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

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW5030B

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: V5

Instrument Type: GCMS-VOA Description: HP6890 / HP6890 Manufacturer: Hewlett-Packard

Model: 6890 / 6890

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits.

D. Laboratory Control Spikes (LCS):

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

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

The following samples were analyzed at dilution:

INF-032911 (K0479-02A): Dilution Factor: 16

TW-1 (K0479-03A) : Dilution Factor: 5 TW-2A (K0479-04A) : Dilution Factor: 25

G. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and 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 #: K0479

EPA 1664A, Oil & Grease, HEM

I. SAMPLE RECEIPT

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

II. HOLDING TIMES

A. Sample Preparation:

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

B. Sample Analysis:

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

III. METHODS

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

IV. PREPARATION

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

V. INSTRUMENTATION

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

Instrument Type: Analytical Balance

Manufacturer: Denver Instrument Company

Model: A-250

VI. ANALYSIS

A. Calibration:

Analytical balance was calibrated based on SOP/Method criteria.

B. Blanks:

Method blanks were within the QC acceptance criteria.

C. Laboratory Control Spikes (LCS):

Percent recoveries were within the QC acceptance criteria.

E. Samples:

No 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: Mund Myand

REPORT NARRATIVE

Mitkem Laboratories, a Division of Spectrum Analytical, Inc.

Client: AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: K0479 SW846 6010C, SW846 7470A

I. SAMPLE RECEIPT

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

II. HOLDING TIMES

A. Sample Preparation:

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

B. Sample Analysis:

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

III. METHODS

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

IV. PREPARATION

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

Aqueous Samples were prepared following procedures in laboratory test

code: 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. 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

REPORT NARRATIVE

Mitkem Laboratories, a Division of Spectrum Analytical, Inc.

Client: AECOM Technical Services, Inc.

Project: NOW Corp. Site

Laboratory Workorder / SDG #: K0479

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. 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

V. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. 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.

F. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and 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.

Sianed:

Date:

Date: 14-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-032911

Lab ID: K0479-01

Project: NOW Corp. Site **Collection Date:** 03/29/11 11:35

Analyses Result Qual **RL** Units **DF** Date Analyzed **Batch ID** SW846 8260C -- VOC by GC-MS (25 mL Purge) SW8260_25_W ND 1 04/07/2011 1:43 Vinyl chloride 0.50 µg/L 58415 Chloroethane ND 0.50 µg/L 1 04/07/2011 1:43 58415 1,1-Dichloroethene ND 0.50 µg/L 1 04/07/2011 1:43 58415 trans-1.2-Dichloroethene 1 04/07/2011 1:43 ND 0.50 µg/L 58415 Methyl tert-butyl ether ND 0.50 µg/L 104/07/2011 1:43 58415 ND 0.50 µg/L 1 04/07/2011 1:43 58415 1,1-Dichloroethane cis-1,2-Dichloroethene ND 0.50 µg/L 1 04/07/2011 1:43 58415 1.1.1-Trichloroethane ND 1 04/07/2011 1:43 58415 0.50 µg/L 1,2-Dichloroethane ND 0.50 µg/L 1 04/07/2011 1:43 58415 ND 0.50 µg/L 1 04/07/2011 1:43 58415 Benzene ND 1 04/07/2011 1:43 Trichloroethene 0.50 µg/L 58415 Toluene ND 0.50 µg/L 1 04/07/2011 1:43 58415 1,1,2-Trichloroethane ND 0.50 µg/L 104/07/2011 1:43 58415 Tetrachloroethene ND 0.50 µg/L 1 04/07/2011 1:43 58415 Chlorobenzene ND 0.50 µg/L 1 04/07/2011 1:43 58415 Ethylbenzene ND 0.50 µg/L 1 04/07/2011 1:43 58415 1 04/07/2011 1:43 m,p-Xylene ND 0.50 µg/L 58415 o-Xylene ND 0.50 µg/L 1 04/07/2011 1:43 58415 88-124 %REC 58415 100 1 04/07/2011 1:43 Surrogate: Dibromofluoromethane Surrogate: 1,2-Dichloroethane-d4 106 79-115 %REC 1 04/07/2011 1:43 58415 1 04/07/2011 1:43 Surrogate: Toluene-d8 80-114 %REC 58415 104 103 60-123 %REC 1.04/07/2011 1:43 Surrogate: Bromofluorobenzene 58415

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 14-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-032911

Lab ID: K0479-02

Project: NOW Corp. Site

Collection Date: 03/29/11 11:46

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS (25 mL Purge)			SW	8260_25_W
Vinyl chloride	ND	8.0 µg/L	16 04/07/2011 2:11	58415
Chloroethane	ND	8.0 µg/L	16 04/07/2011 2:11	58415
1,1-Dichloroethene	19	8.0 µg/L	16 04/07/2011 2:11	58415
trans-1,2-Dichloroethene	ND	8.0 µg/L	16 04/07/2011 2:11	58415
Methyl tert-butyl ether	ND	8.0 µg/L	16 04/07/2011 2:11	58415
1,1-Dichloroethane	83	8.0 µg/L	16 04/07/2011 2:11	58415
cis-1,2-Dichloroethene	8.3	8.0 µg/L	16 04/07/2011 2:11	58415
1,1,1-Trichloroethane	190	8.0 µg/L	16 04/07/2011 2:11	58415
1,2-Dichloroethane	ND	8.0 µg/L	16 04/07/2011 2:11	58415
Benzene	ND	8.0 µg/L	16 04/07/2011 2:11	58415
Trichloroethene	210	*8.0 µg/L	16 04/07/2011 2:11	58415
Toluene	ND	8.0 µg/L	16 04/07/2011 2:11	58415
1,1,2-Trichloroethane	ND	8.0 µg/L	16 04/07/2011 2:11	58415
Tetrachloroethene	ND	8.0 µg/L	16 04/07/2011 2:11	58415
Chlorobenzene	ND	8.0 µg/L	16 04/07/2011 2:11	58415
Ethylbenzene	ND	8.0 µg/L	16 04/07/2011 2:11	58415
m,p-Xylene	ND	8.0 µg/L	16 04/07/2011 2:11	58415
o-Xylene	ND	8.0 µg/L	16 04/07/2011 2:11	58415
Surrogate: Dibromofluoromethane	96,7	88-124 %REC	16 04/07/2011 2:11	58415
Surrogate: 1,2-Dichloroethane-d4	109	79-115 %REC	16 04/07/2011 2:11	58415
Surrogate: Toluene-d8	105	80-114 %REC	16 04/07/2011 2:11	58415
Surrogate: Bromofluorobenzene	105	60-123 %REC	16 04/07/2011 2:11	58415

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 14-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-1

Lab ID: K0479-03

Project: NOW Corp. Site

Collection Date: 03/29/11 12:05

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS (25 mL Purge)			SW	8260_25_W
Vinyl chloride	ND	2.5 μg/L	5 04/07/2011 2:40	58415
Chioroethane	ND	2.5 µg/L	5 04/07/2011 2:40	58415
1,1-Dichloroethene	11	2.5 µg/L	5 04/07/2011 2:40	58415
trans-1,2-Dichloroethene	ND	2.5 µg/L	5 04/07/2011 2:40	58415
Methyl tert-butyl ether	ND	2.5 µg/L	5 04/07/2011 2:40	58415
1,1-Dichloroethane	50	2.5 µg/L	5 04/07/2011 2:40	58415
cis-1,2-Dichloroethene	10	2.5 µg/L	5 04/07/2011 2:40	58415
1,1,1-Trichloroethane	6.0	2.5 µg/L	5 04/07/2011 2:40	58415
1,2-Dichloroethane	ND	2.5 µg/L	5 04/07/2011 2;40	58415
Benzene	ND	2.5 µg/L	5 04/07/2011 2:40	58415
Trichloroethene	99	2.5 μg/L	5 04/07/2011 2:40	58415
Toluene	ND	2.5 µg/L	5 04/07/2011 2:40	58415
1,1,2-Trichloroethane	ND	2.5 µg/L	5 04/07/2011 2:40	58415
Tetrachloroethene	ND	2.5 μg/L	5 04/07/2011 2:40	58415
Chlorobenzene	ND	2.5 µg/L	5 04/07/2011 2:40	58415
Ethylbenzene	ND	2.5 µg/L	5 04/07/2011 2:40	58415
m,p-Xylene	ND	2.5 μg/L	5 04/07/2011 2:40	58415
o-Xylene	ND	2.5 µg/L	5 04/07/2011 2:40	58415
Surrogate: Dibromofluoromethane	100	88-124 %REC	5 04/07/2011 2:40	58415
Surrogate: 1,2-Dichloroethane-d4	97.3	79-115 %REC	5 04/07/2011 2:40	58415
Surrogate: Toluene-d8	107	80-114 %REC	5 04/07/2011 2:40	58415
Surrogate: Bromofluorobenzene	108	60-123 %REC	5 04/07/2011 2:40	58415

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 14-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-2A

Lab ID: K0479-04

Project: NOW Corp. Site

Collection Date: 03/29/11 12:10

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS (25 mL Purge)			SW	8260_25_W
Vinyl chloride	ND	13 · μg/L	25 04/07/2011 3:08	58415
Chloroethane	. ND	13 µg/L	25 04/07/2011 3:08	58415
1,1-Dichloroethene	37	13 μg/L	25 04/07/2011 3:08	58415
trans-1,2-Dichloroethene	ND	13 µg/L	25 04/07/2011 3:08	58415
Methyl tert-butyl ether	ND	13 µg/L	25 04/07/2011 3:08	58415
1,1-Dichloroethane	130	13 µg/L	25 04/07/2011 3:08	58415
cis-1,2-Dichloroethene	ND	13 μg/L	25 04/07/2011 3:08	58415
1,1,1-Trichloroethane	320	13 μg/L	25 04/07/2011 3:08	58415
1,2-Dichloroethane	ND	13 μg/L	25 04/07/2011 3:08	58415
Benzene	ND	13 μg/L	25 04/07/2011 3:08	58415
Trichloroethene	350	13 μg/L	25 04/07/2011 3:08	58415
Toluene	. ND	13 µg/L	25 04/07/2011 3:08	58415
1,1,2-Trichloroethane	ND	13 µg/L	25 04/07/2011 3:08	58415
Tetrachloroethene	ND	13 μg/L	25 04/07/2011 3:08	58415
Chlorobenzene	ND	13 μg/L	25 04/07/2011 3:08	58415
Ethylbenzene	ND	13 μg/L	25 04/07/2011 3:08	58415
m,p-Xylene	ND	13 μg/L	25 04/07/2011 3:08	58415
o-Xylene	ND	13 μg/L	25 04/07/2011 3:08	58415
Surrogate: Dibromofluoromethane	99.2	88-124 %REC	25 04/07/2011 3:08	58415
Surrogate: 1,2-Dichloroethane-d4	108	79-115 %REC	25 04/07/2011 3:08	58415
Surrogate: Toluene-d8	104	80-114 %REC	25 04/07/2011 3:08	58415
Surrogate: Bromofluorobenzene	106	60-123 %REC	25 04/07/2011 3:08	58415

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 14-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: TW-3

Lab ID: K0479-05

Project: NOW Corp. Site

Collection Date: 03/29/11 12:15

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS (25 mL Purge)			SW	8260_25_W
Vinyl chloride	ND	0.50 μg/L	1 04/07/2011 3:37	58415
Chloroethane	ND	0.50 μg/L	1 04/07/2011 3:37	58415
1,1-Dichloroethene	1.3	0.50 μg/L	1 04/07/2011 3:37	58415
trans-1,2-Dichloroethene	ND	0.50 μg/L	1 04/07/2011 3:37	58415
Methyl tert-butyl ether	ND	0.50 μg/L	1 04/07/2011 3:37	58415
1,1-Dichloroethane	8.0	0.50 μg/L	1 04/07/2011 3:37	58415
cis-1,2-Dichloroethene	ND	0.50 µg/L	1 04/07/2011 3:37	58415
1,1,1-Trichloroethane	2.8	0.50 μg/L	1 04/07/2011 3:37	58415
1,2-Dichloroethane	ND	0.50 μg/L	1 04/07/2011 3:37	58415
Benzene	ND	0.50 µg/L	1 04/07/2011 3:37	58415
Trichloroethene	7.3	0.50 µg/L	1 04/07/2011 3:37	58415
Toluene	ND	0.50 µg/L	1 04/07/2011 3:37	58415
1,1,2-Trichloroethane	ND	0.50 µg/L	1 04/07/2011 3:37	58415
Tetrachloroethene	ND	0.50 µg/L	1 04/07/2011 3:37	58415
Chlorobenzene	ND	0.50 µg/L	1 04/07/2011 3:37	58415
Ethylbenzene	· ND	0.50 μg/L	1 04/07/2011 3:37	58415
m,p-Xylene	ND	0.50 µg/L	1 04/07/2011 3:37	58415
o-Xylene	ND	0.50 μg/L	1 04/07/2011 3:37	58415
Surrogate: Dibromofluoromethane	103	88-124 %REC	1 04/07/2011 3:37	58415
Surrogate: 1,2-Dichloroethane-d4	102	79-115 %REC	1 04/07/2011 3:37	58415
Surrogate: Toluene-d8	103	80-114 %REC	1 04/07/2011 3:37	58415
Surrogate: Bromofluorobenzene	102	60-123 %REC	1 04/07/2011 3:37	58415

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 14-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: TRIP BLANK

Lab ID: K0479-06

Project: NOW Corp. Site

Collection Date: 03/29/11 0:00

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS (25 mL Purge)			sw	8260_25_W
Vinyl chloride	ND	0.50 µg/L	1 04/07/2011 4:06	58415
Chloroethane	ND	0.50 µg/L	1 04/07/2011 4:06	58415
1,1-Dichloroethene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
trans-1,2-Dichloroethene	ND	0.50 μg/L	1 04/07/2011 4:06	58415
Methyl tert-butyl ether	ND	0.50 μg/L	1 04/07/2011 4:06	58415
1,1-Dichloroethane	ND ND	0.50 μg/L	1 04/07/2011 4:06	58415
cis-1,2-Dichloroethene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
1,1,1-Trichloroethane	ND	0.50 µg/L	1 04/07/2011 4:06	58415
1,2-Dichloroethane	ND	0.50 μg/L	1 04/07/2011 4:06	58415
Benzene	ND	0.50 μg/L	1 04/07/2011 4:06	58415
Trichloroethene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
Toluene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
1,1,2-Trichloroethane	ND	0.50 µg/L	1 04/07/2011 4:06	58415
Tetrachloroethene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
Chlorobenzene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
Ethylbenzene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
m,p-Xylene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
o-Xylene	ND	0.50 µg/L	1 04/07/2011 4:06	58415
Surrogate: Dibromofluoromethane	99.3	88-124 %REC	1 04/07/2011 4:06	58415
Surrogate: 1,2-Dichloroethane-d4	103	79-115 %REC	1 04/07/2011 4:06	58415
Surrogate: Toluene-d8	106	80-114 %REC	1 04/07/2011 4:06	58415
Surrogate: Bromofluorobenzene	106	60-123 %REC	1 04/07/2011 4:06	58415

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

NOW Corp. Site

Project:

Work Order: K0479	A)	AECOM Technical Services, Ir K0479	CLIENT: Work Order:
	4 7 .	ALCOIM I Common 301 vices, in	CEIENI
ALCOIN I COMMON SELECTION INC.	NA AMMIS OF TACITY TANA	AECOM Tachnical Samicas Ir	CT IFNT.
AECOM Technical Services, Inc. ANALYTICAL QC SUMMARY			

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

Sample ID: MB-58415	SampType: MBLK	TestCoc	TestCode: SW8260_25_W		Prep Date:	Prep Date: 04/06/11 13:41		Run ID: V5_110406A		
Client ID: MB-58415	Batch ID: 58415	Unit	Units: µg/L		Analysis Date:	04/07/11 1:15		SeqNo: 1503996		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC Low	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Vinyl chloride	ND	0.15	0.50							
Chloroethane	ND	0.24	0.50							
1,1-Dichloroethene	QN	0.19	0.50							
trans-1,2-Dichloroethene	ND	0.14	0.50							
Methyl tert-butyl ether	ND	0.13	0.50							
1,1-Dichloroethane	ND	0.18	0.50							
cis-1,2-Dichloroethene	ND	0.19	0.50		•					
1,1,1-Trichloroethane	ND	0.11	0.50							
1,2-Dichloroethane	ND	0.16	0.50							
Benzene	ND	0.12	0.50							
Trichloroethene	ND	0.13	0.50							
Toluene	ND	0.14	0.50							
1,1,2-Trichloroethane	ND	0.20	0.50							
Tetrachloroethene	QN	0.17	0.50							
Chlorobenzene	ND	0.13	0.50							
Ethylbenzene	ND	0.13	0.50							
m,p-Xylene	ND	0.22	0.50							
o-Xylene	QN	0.17	0.50							
Surrogate:	608.6		0.50	10.00	0	98.1	88 124	0		
Dibromofluoromethane										
Surrogate: 1,2- Dichloroethane-d4	10.18		0.50	10.00	O	102	79 115	0		
Surrogate: Toluene-d8	10.61		0.50	10.00	0		80 114	0		
Surrogate:	10.55		0.50	10.00	0	105	60 123	0		

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B - Analyte detected in the associated Method Blank

ANALYTICAL QC SUMMARY REPORT

AECOM Technical Services, Inc.

NOW Corp. Site

K0479

Work Order:

Project:

CLIENT:

SW8260_25_W

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

!	1	ŀ		!							
Sample ID: LCS-58415 Client ID: LCS-58415	Samp I ype: LCS Batch ID: 58415	l est cod Unit	estCode: SW8260_25_W Units: µg/L		Prep Date: Analysis Date:	04/06/11 13:41 04/07/11 0:47	13:41 0:47	Kun I SeqN	Kun ID: V5_110406A SeqNo: 1503995		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC L	%REC LowLimit HighLimit	ighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Vinyl chloride	9.951	0.15	0.50	10.00	0	99.5	77	120	0		
Chloroethane	11.70	0.24	0.50	10.00	0	117	75	135	0		
1,1-Dichloroethene	10.31	0.19	0.50	10.00	0	103	81	125	0		
trans-1,2-Dichloroethene	10.81	0.14	0.50	10.00	0	108	09	137	0		
Methyl tert-butyl ether	10.48	0.13	0.50	10.00	0	105	61	134	0		
1,1-Dichloroethane	10.26	0.18	0.50	10.00	0	103	82	120	0		
cis-1,2-Dichloroethene	10.86	0.19	0.50	10.00	0	109	84	116	0		
1,1,1-Trichloroethane	10.97	0.11	0.50	10.00		110	80	124	0	٠	
1,2-Dichloroethane	11.11	0.16	0.50	10.00	0	111	98	117	0		
Benzene	10.46	0.12	0.50	10.00	0	105	81	121	0		
Trichloroethene	10.38	0.13	0.50	10.00	0	104	74	123	0		
Toluene	10.43	0.14	0.50	10.00	0	104	88	117	0		
1,1,2-Trichloroethane	9.858	0.20	0.50	10.00	0	98.6	83	121	0		
Tetrachloroethene	11.13	0.17	0.50	10.00	0	111	74	115	0		
Chlorobenzene	11.07	0.13	0.50	10.00	0	111	83	112	0		
Ethylbenzene	10.93	0.13	0.50	10.00	0	109	87	110	0		,
m,p-Xylene	21.47	0.22	0.50	20.00	0	107	87	114	0		
o-Xylene	10.96	0.17	0.50	10.00	0	110	84	114	0		
Surrogate:	10.52		0.50	10.00	0	105	88	124	0		
Dibromofluoromethane											
Surrogate: 1,2- Dichloroethane-d4	10.90		0.50	10.00	0	109	79	115	0		
Surrogate: Toluene-d8	10.20		0.50	10.00	0	102	80	114	0		
Surrogate: Bromofluorobenzene	10.27		0.50	10.00	0	103	09	123	0		

B - Analyte detected in the associated Method Blank

Date: 14-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-032911

Lab ID: K0479-01

Project: NOW Corp. Site

Collection Date: 03/29/11 11:35

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 04/14/2011 0:00	58576

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 14-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-032911

Lab ID: K0479-02

Project: NOW Corp. Site

Collection Date: 03/29/11 11:46

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 04/14/2011 0:00	58576

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

CLIENT:	AECOM Te	AECOM Technical Services, Inc.	10.		ANALY	TICAL QC	ANALYTICAL QC SUMMARY REPORT	Y REPO	RT		
Work Order:	K0479	į			E1664		i,				
Project:	NOW Corp. Site	. Site			EPA 1664A Oii & Grease, HEM	& Grease, HE	IMI		terestants, man		
Sample ID: MB-58576	3576	SampType: MBLK	TestCox	TestCode: E1664		Prep Date:	Prep Date: 04/13/11 10:41	Run ID:	Run ID: MANUAL_110414B	114B	
Client ID: MB-58576	3576	Batch ID: 58576	îu)	Units: mg/L		Analysis Date:	04/14/11 0:00	SedNo:	SeqNo: 1509005		
Analyte		Result	MDL	뭅	SPK value	SPK Ref Val	SPK Ref Val %REC LowLimit HighLimit		RPD Ref Val	RPD Ref Val %RPD RPDLimit Qual	Qual
Oil & Grease, Total Recoverable		ND	1.2	5.0			-				
Sample ID: LCS-58576	38576	SampType: LCS	TestCo	TestCode: E1664		Prep Date:	Prep Date: 04/13/11 10:41	Run ID:	Run ID: MANUAL_110414B	114B	
Client ID: LCS-58576	38576	Batch ID: 58576	Cui	Units: mg/L		Analysis Date:	Analysis Date: 04/14/11 0:00	SeqNo:	SeqNo: 1509003		
Analyte		Result	MDL	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	ighLimit	RPD Ref Val	%RPD RPDLimit Qual	Qual
Oil & Grease, Total Recoverable		36.80	1.2	5.0	40.00	0	92.0 78	114	0		
Sample ID: LCSD-58576	-58576	SampType: LCSD	TestCo	TestCode: E1664		Prep Date:	Prep Date: 04/13/11 10:41	Run ID:	Run ID: MANUAL_110414B	114B	
Client ID: LCSD-58576	-58576	Batch ID: 58576	Uni	Units: mg/L		Analysis Date:	Analysis Date: 04/14/11 0:00	SeqNo:	SeqNo: 1509004		
Analyte		Result	MDL	R	SPK value	SPK Ref Val	%REC LowLimit HighLimit	ighLímit	RPD Ref Val	%RPD RPDLimit	Qual
Oil & Grease, Total Recoverable		39.10	1.2	5.0	40.00	0	97.8 78	114	36.80	6.06 18	

B - Analyte detected in the associated Method Blank

Date: 08-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-032911

Lab ID: K0479-01

Project: NOW Corp. Site

Collection Date: 03/29/11 11:35

Result Qual	RL Units	DF Date Analyzed	Batch ID
			SW6010_W
ND	200 μg/L	1 04/01/2011 16:22	58293
ND	20 μg/L	1 04/01/2011 16:22	58293
59 J	200 μg/L	1 04/01/2011 16:22	58293
ND	20 μg/L	1 04/01/2011 16:22	58293
ND	25 μg/L	1 04/01/2011 16:22	58293
ND	200 μg/L	1 04/01/2011 16:22	58293
29 J	50 μg/L	1 04/01/2011 16:22	58293
ND	50 μg/L	1 04/01/2011 16:22	58293
10 J	50 μg/L	1 04/01/2011 16:22	58293
			SW7470
ND	0.20 μg/L	1 04/01/2011 15:52	58318
	ND 59 J ND ND ND 29 J ND 10 J	ND 20 μg/L 59 J 200 μg/L ND 20 μg/L ND 25 μg/L ND 200 μg/L ND 50 μg/L ND 50 μg/L 10 J 50 μg/L	ND 20 μg/L 1 04/01/2011 16:22 59 J 200 μg/L 1 04/01/2011 16:22 ND 20 μg/L 1 04/01/2011 16:22 ND 25 μg/L 1 04/01/2011 16:22 ND 200 μg/L 1 04/01/2011 16:22 ND 200 μg/L 1 04/01/2011 16:22 29 J 50 μg/L 1 04/01/2011 16:22 ND 50 μg/L 1 04/01/2011 16:22 ND 50 μg/L 1 04/01/2011 16:22

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-032911

Lab ID: K0479-02

Date: 08-Apr-11

Project: NOW Corp. Site

Collection Date: 03/29/11 11:46

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 6010C Metals by ICP				SW6010_W
Aluminum	ND	200 μg/L	1 04/01/2011 16:25	58293
Arsenic	ND	20 μg/L	1 04/01/2011 16:25	58293
Barium	61 J	200 μg/L	1 04/01/2011 16:25	58293
Chromium	ND	20 μg/L	1 04/01/2011 16:25	58293
Соррег	ND	30 µg/L	1 04/01/2011 16:25	58293
Iron	47 J	200 μg/L	1 04/01/2011 16:25	58293
Manganese	95	50 μg/L	1 04/01/2011 16:25	58293
Nickel	ND	50 μg/L	1 04/01/2011 16:25	58293
Zinc	11 J	50 µg/L	1 04/01/2011 16:25	58293
SW846 7470A Mercury by FIA			•	SW7470
Mercury	ND	0.20 μg/L	1 04/01/2011 15:54	58318

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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CLIENT: AECO	AECOM Technical Services, Inc.	JC.		ANALY	ANALYTICAL QC SUMMARY REPORT	SUMM	ARY REI	ORT		
Work Order: K0479			S	SW6010_W						
Project: NOW	NOW Corp. Site		S	SW846 6010C - Metals by ICP	fetals by ICP					
Sample ID: MB-58293	SampType: MBLK	TestCo	TestCode: SW6010_W		Prep Date:	03/31/11 11:45		Run ID: OPTIMA3_110401D	0401D	
Client ID: MB-58293	Batch ID: 58293	้า	Units: µg/L		Analysis Date:	04/01/11 15:06		SeqNo: 1501224		
Analyte	Result	MDL	R	SPK value	SPK Ref Val	"REC LOWL	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit Q	Qual
Aluminum	QN	99	200							
Arsenic	ND	4.3	20							
Barium	UN	1.1	200							
Chromium	UND	0.64	50							
Copper	QN	3.6	30							
Iron	QN	31	200							
Manganese	QN	10	50							
Nickel	QN	0.85	50							
Zinc	ND	4.9	50							
Sample ID: LCS-58293	SampType: LCS	TestCo	TestCode: SW6010_W		Prep Date:	Prep Date: 03/31/11 11:45		Run ID: OPTIMA3_110401D	0401D	
Client ID: LCS-58293	Batch ID: 58293	ัร	Units: µg/L		Analysis Date:	04/01/11 15:09		SeqNo: 1501225		
Analyte	Result	MDL	R	SPK value	SPK Ref Val	"REC LOWL	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit Q	Qual
Aluminum	8845	99	200	9100	0	97.2 80	0 120	0		
Arsenic	472.6	4.3	20	455.0	0	104 80	0 120	0		
Barium	9121	1.1	200	9100	0	100 80) 120	0		
Chromium	867.2	0.64	20	910.0	0	95.3 80	0 120	0		
Copper	1117	3.6	30	1130	0	98.8	0 120	0		
Iron	4580	31	200	4550	0	101 80		0		
Manganese	2291	10	50	2270	0	101 80	0 120	0		
Nickel	2344	0.85	50	2270	. 0	103 80	0 120	0		
Zinc	2251	4.9	50	2270	0	99.2 80	0 120	0		

CLIENT: Work Order: Project:	AECOM Technic K0479 NOW Corp. Site	AECOM Technical Services, Inc. K0479 NOW Corp. Site	JC.		ANALYTICAL QC SW7470 SW846 7470A Mercury by FIA	TICAL QC	ANALYTICAL QC SUMMARY REPORT 0 7470A Mercury by FIA	Y REPO	RT		
Sample ID: MB-58318 Client ID: MB-58318	318 318	SampType: MBLK Batch ID: 58318		TestCode: SW7470 Units: µg/L		Prep Date: Analysis Date:	Prep Date: 04/01/11 11:15 llysis Date: 04/01/11 15:28	Run ID: SeqNo:	Run ID: FIMS1_110401A SeqNo: 1500996	4 7	
Analyte Mercury		Result	MDL 0.0	- RL 0.028 0.20	SPK value	SPK Ref Val	%REC LowLimit HighLimit		RPD Ref Val	%RPD RPDLimit Qual	Qual
Sample ID: LCS-58318 Client ID: LCS-58318	8318 8318	SampType: LCS Batch ID: 58318		TestCode: SW7470 Units: µg/L		Prep Date: Analysis Date:	Prep Date: 04/01/11 11:15 Analysis Date: 04/01/11 15:30	Run ID: SeqNo:	Run ID: FIMS1_110401A SeqNo: 1500997	1A	
Analyte Mercury		Result	MDL.	RL 0.028 0.20	SPK value 4.550	SPK Ref Val	%REC LowLimit HighLimit 107 80 120	ghLimit 120	RPD Ref Val	%RPD RPDLimit Qual	Qual
Sample ID: LCSD-58318 Client ID: LCSD-58318	-58318 -58318	SampType: LCSD Batch ID: 58318		TestCode: SW7470 Units: µg/L	·	Prep Date: Analysis Date:	Prep Date: 04/01/11 11:15 Analysis Date: 04/01/11 15:31	Run ID: SeqNo:	Run ID: FIMS1_110401A SeqNo: 1500998	4 7	
Analyte		Result	MDL	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	ghLimit	RPD Ref Val	%RPD RPDLimit Qual	Qual

20

4.889

120

80

101

0

4.550

0.20

0.028

4.614

Mercury

ND - Not Detected at the Reporting Limit

m11.03.22.A

Date: 07-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: EFF-032911

Lab ID: K0479-01

Project: NOW Corp. Site

Collection Date: 03/29/11 11:35

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SM 2540C TOTAL DISSOLVED SOLIDS				SM2540_TDS
Total Dissolved Solids	260	10 mg/L	1 04/01/2011 1:38	58308
SM 2540D TOTAL SUSPENDED SOLIDS				SM2540_TSS
Total Suspended Solids	ND	10 mg/L	1 04/01/2011 1:38	58309
SW846 9012B Total Cyanide				SW9012_W
Cyanide	ND	10 ug/L	1 04/07/2011 11:06	58418

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 07-Apr-11

Client: AECOM Technical Services, Inc.

Client Sample ID: INF-032911

Lab ID: K0479-02

Project: NOW Corp. Site

Collection Date: 03/29/11 11:46

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SM 2540C TOTAL DISSOLVED SOLIDS				SM2540_TDS
Total Dissolved Solids	270	10 mg/L	1 04/01/2011 3:55	58308
SM 2540D TOTAL SUSPENDED SOLIDS				SM2540_TSS
Total Suspended Solids	11	10 mg/L	1 04/01/2011 3:55	58309
SW846 9012B Total Cyanide				SW9012_W
Cyanide	ND	10 ug/L	1 04/07/2011 11:13	58418

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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CLIENT: AECON	AECOM Technical Services, Inc.			ANALY	TICAL QC	ANALYTICAL QC SUMMARY REPORT	Y REPO	RT		
Work Order: K0479			[S	SM2540_TDS						
Project: NOW C	NOW Corp. Site		[S	SM 2540C TOTAL DISSOLVED SOLIDS	AL DISSOLV	ED SOLIDS	:			
Sample ID: MB-58308	SampType: MBLK		TestCode: SM2540_TDS	-	Prep Date:	Prep Date: 03/31/11 16:30	Run ID:	Run ID: MANUAL_110331B	331B	1
Client ID: MB-58308	Batch ID: 58308		Units: mg/L		Analysis Date:	03/31/11 16:30	SeqNo:	SeqNo: 1501708		
Analyte	Result	MDL	R	SPK value	SPK Ref Val	%REC LowLimit HighLimit		RPD Ref Val	%RPD RPDLimit Qual	Qual
Total Dissolved Solids	ND	10	10							
Sample ID: LCS-58308	SampType: LCS		TestCode: SM2540_TDS		Prep Date:	Prep Date: 03/31/11 16:30	Run ID:	Run ID: MANUAL_110331B	331B	-
Client ID: LCS-58308	Batch ID: 58308		Units: mg/L		Analysis Date:	Analysis Date: 03/31/11 18:47	SeqNo	SeqNo: 1501709		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit		RPD Ref Val	%RPD RPDLimit	Qual
Total Dissolved Solids	395.0	10	10	372.0	0	106 80	120	0		
Sample ID: K0479-02CDUP	SampType: DUP		TestCode: SM2540_TDS	-	Prep Date:	03/31/11 16:30	Run ID:	Run ID: MANUAL_110331B	331B	
Client ID: INF-032911	Batch ID: 58308		Units: mg/L		Analysis Date:	04/01/11 6:12	SeqNo:	SeqNo: 1501714		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit		RPD Ref Val	%RPD RPDLimit	Qual
Total Dissolved Solids	255.0	10	10	0	0	0 0	0	268.0	4.97 5.0	

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

Qualifiers: m11.03.22.A

CLIENT:	AECOM T	AECOM Technical Services, Inc.	JC.		ANALY	TICAL QC	ANALYTICAL QC SUMMARY REPORT	REPORT		
Work Order: Project:	K0479 NOW Corp. Site	o. Site		SM	SM2540_TSS SM 2540D TOTAL SUSPENDED SOLIDS	AL SUSPENE	ED SOLIDS			
Sample ID: MB-5 8309 Client ID: MB-5 8309	309	SampType: MBLK Batch ID: 58309		TestCode: SM2540_TSS Units: mg/L		Prep Date: Analysis Date:	Prep Date: 03/31/11 16:30 Analysis Date: 03/31/11 16:30	Run ID: MANUAL_110331C SeqNo: 1501755	10331C	
Analyte Total Suspended Solids	Spila	Result	MDL	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	imit RPD Ref Val	%RPD RPDLimit Qual	Qual
Sample ID: LCS-58309 Client ID: LCS-58309	8309 3309	SampType: LCS Batch ID: 58309		TestCode: SM2540_TSS Units: mg/L		Prep Date: Analysis Date:	03/31/11 16:30	Run ID: MANUAL_110331C SeqNo: 1501756	10331C	
Analyte Total Suspended Solids	lids	Result 73.00	MDL 10	RL 10	SPK value 68.60	SPK Ref Val	%REC LowLimit HighLimit 106 80 120	Limit RPD Ref Val	II %RPD RPDLimit Qual	Qual
Sample ID: K0479-02CDUP Client ID: INF-032911	-02CDUP	SampType: DUP Batch ID: 58309		TestCode: SM2540_TSS Units: mg/L		Prep Date: Analysis Date:	Prep Date: 03/31/11 16:30 lysis Date: 04/01/11 6:12	Run ID: MANUAL_110331C SeqNo: 1501761	110331C	
Analyte Total Suspended Solids	spilos	Result	MDL 10	RL 10	SPK value	SPK Ref Val	%REC LowLimit HighLimit	imit RPD Ref Val	II %RPD RPDLimit Qual	Qual

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

m11.03.22.A

CLIENT: AECO	AECOM Technical Services, Inc.			ANALY	ANALYTICAL QC SUMMARY REPORT	SUMMA	RY REPO	IRT		
Work Order: K0479			SV	SW9012_W						
Project: NOW	NOW Corp. Site		SV	SW846 9012B Total Cyanide	otal Cyanide					
Sample ID: MB-58418	SampType: MBLK	TestCo	TestCode: SW9012_W		Prep Date:	Prep Date: 04/06/11 13:00	Run II	Run ID: LACHAT1_110407A	0407A	
Client ID. 1915-58418	Datch ID: 50416	5	Omits. ug/L		Alialysis Date.	Alialysis Date: 04/07/11 10:23	Sedisc	Sedivo: 1504209		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	SPK Ref Val %REC LowLimit HighLimit	HighLimit	RPD Ref Val	RPD Ref Val %RPD RPDLimit Qual	Qual
Cyanide	UN	7.5	20							
Sample ID: LCS-58418	SampType: LCS	TestCo	TestCode: SW9012_W		Prep Date:	Prep Date: 04/06/11 13:00	Run I	Run ID: LACHAT1_110407A	2407A	
Client ID: LCS-58418	Batch ID: 58418	'n	Units: ug/L		Analysis Date:	Analysis Date: 04/07/11 10:26	SedNo	SeqNo: 1504210		
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	SPK Ref Val %REC LowLimit HighLimit	HighLimit	RPD Ref Val	RPD Ref Val %RPD RPDLimit Qual	Qual
Cyanide	101.5	7.5	20	100.0	0	102 80	120	0		

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

WorkOrder: K0479

03/31/2011 07:29

Mitkem Laboratories

Project: NOW Corp. Site Client ID: EARTH_NY

WO Name: NOW Corp. Site Location: NOW_CORP,

Comments: N/A

Case: SDG:

HC Due: 04/15/11 Fax Due: Fax Report:

Report Level: LEVEL 2 Special Program:

EDD:

PO: 94017.02

Lab Samp ID	Lab Samp ID Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF HT MS SEL Storage
K0479-01A	EFF-032911	03/29/2011 11:35	03/30/2011	Aqueous	SW8260_25_W	/ use for VOCs,	Y VOA
K0479-01B K0479-01B	EFF-032911 EFF-032911	03/29/2011 11:35	03/30/2011	Aqueous	SW6010_W SW7470	/ See SEL list / See SEL list	Y M4
K0479-01C K0479-01C	EFF-032911 EFF-032911	03/29/2011 11:35 03/29/2011 11:35	03/30/2011	Aqueous Aqueous	SM2540_TDS SM2540_TSS		E4
K0479-01D	EFF-032911	03/29/2011 11:35	03/30/2011	Aqueous	SW9012_W		Υ Ε4
K0479-01E	EFF-032911	03/29/2011 11:35	03/30/2011	Aqueous	E1664		E4
K0479-02A	INF-032911	03/29/2011 11:46	03/30/2011	Aqueous	SW8260_25_W	/ use for VOCs,	Y VOA
K0479-02B K0479-02B	INF-032911 INF-032911	03/29/2011 11:46 03/29/2011 11:46	03/30/2011	Aqueous Aqueous	SW6010_W SW7470	/ See SEL list / See SEL list	Y M4
K0479-02C K0479-02C	INF-032911 INF-032911	03/29/2011 11:46 03/29/2011 11:46	03/30/2011	Aqueous Aqueous	SM2540_TDS SM2540_TSS		E4
K0479-02D	INF-032911	03/29/2011 11:46	03/30/2011	Aqueous	SW9012_W		Υ Ε4
K0479-02E	INF-032911	03/29/2011 11:46	03/30/2011	Aqueous	E1664		E4
K0479-03A	TW-1	03/29/2011 12:05	03/30/2011	Aqueous	SW8260_25_W	/ use for VOCs,	Y VOA
K0479-04A	TW-2A	03/29/2011 12:10	03/30/2011	Aqueous	SW8260_25_W	/ use for VOCs,	Y VOA
K0479-05A	TW-3	03/29/2011 12:15	03/30/2011	Aqueous	SW8260_25_W	/ use for VOCs,	Y VOA
K0479-06A	TRIP BLANK	03/29/2011 00:00	03/30/2011	Aqueous	SW8260_25_W	/ use for VOCs,	Y VOA

CATF = Fraction logged in but all tests have been placed on hold (C)

Lab Client Rep: Edward A Lawler

HT = Test logged in but has been placed on hold

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Special Handling: AT- Indicate Date Needed: All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes. Samples disposed of after 30 days unless otherwise instructed.		NV			QA/QC Reporting Level	☐ Level II		State specific reporting standards:	4.CR	MN, Ha)							Time:	15:00
Special Handling: AT- Indicate Date Needed: All TATs subject to laboratory app Min. 24-hour notification needed for rush Samples disposed of after 30 days unless otherwise instructed.	70	State: 1		Notes:	Reporti	_		ic reportii	*AI, AS BA, CR	M,									
Special Handling: TAT-Indicate Date Needed: All TATs subject to laborato Min. 24-hour notification needed f Samples disposed of after 30 days otherwise instructed.	c				2A/QC	□ Level I	Other	te specifi	Ai.A	Cu, FE	Zn, 1							Date:	11/62/2
Special are Dat are Dat I've subjeton notification instructed instructed instructed instructed in the special are	9/	- 5					. U	Sta	*	C	17		-						M 7
Special AT- Indicate Date All TATs subjec Min. 24-hour notific Samples disposed of otherwise instructed.	Project No.: 60135676 Site Name: 10 10 10 10 10 10 10 10 10 10 10 10 10	Location: Stacks burg		:wole															
TAT MIN MIN Outh	000	iats	2	List preservative code below: $\frac{1}{4} \frac{1}{9} \frac{2}{2} \frac{5}{5}$	es:		N'S	0/7	×	×								l by:	
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CHAIN	Invoice		P.O. No	5=NaOH	WW=Wastewater	A=Air		Time:	1:35	:46	12:05	2:10	12:15						
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M ES AL, INC. Featur	204	2	phen	2=HCl 9= /	Te G	ice Wate $X2=$	G=Grab	Sample Id:	EFF-032411	NF-032911)-(TW-24	TW-3	Trio Blan					
K E N ATORIE	上午:	X	15/2	S2O ₃ HSO ₄	Wate	= Surfa			田田	INF	TW-	7u	π	元		·\$44.	2300		
MITKEM LABORATORIES A DAVSIGN OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY	Report To:	E HOW	Project Mgr.: Stephen	$1=Na_2S2O_3$ 8= NaHSO ₄	DW=Drinking Water GW=Groundwater	O=Oil SW= Surface Water X1= X2=		Lab Id:										☐ E-mail to	EDD Format
A Division	Re Coo	757	Proje		DW=	0=0 X											ja		EDD

175 Metro Center Roulevard • Warwick RI 02886-1755 • 401-732-3400 • Fax 401-732-3499 • www.mitkem.com

3/30/11

Condition upon receipt: | Cleed | Ambient | C-

MITKEM LABORATORIES

Sample Condition Form

					/				Page		of	
Received By: 3 and 74 Client Project: A 313014	un	Reviewed By	y:	Sn	/	Date:	3/30/11	Mitke	m Wo	rk Orc	ler#:	K0479 Soil
Client Project: A 31301	NOW	CORP				Clien			4 N	/	·	` Soil Headspace c
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1) Cooler Sealed	Yes No		KO	479	0)	1	[30]4 ORM		48	<u> </u>	H	
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2) Custody Seal(s)	Present I)	Absent			03	<u> </u>						
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3) Custody Seal Number(s	Λ	110										
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4) Chain of Custody	6		<u> </u>								-A	·
4) Chain-of-Custody	Present / A	Absent	<u> </u>									
5) Cooler Temperature	4°0											
			 									
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Coolant Condition	iced	······································							-			· · · · · · · · · · · · · · · · · · ·
6) Airbill(s)	Present PA	bsent					- n	& \	H			
Airbill Number(s) Fed Ex	87475	5417267					<u> </u>	Z139	1			
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7) Samples Bottles	Intact / Bro	ken / Leaking								-		
		_										
8) Date Received	3/30	111										
9) Time Received	0											
o) Time Neceived	 		7	- 								
Preservative Name/Lot No.			/									•
reservative Name/EU(NO.		i			VOA N	l ∕latrix l	L Kev:					
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See Sample (Form ID: QAF.0006	Condition No	tification/Corre	ctive A	ction Fo	orm y	es/ox	3		D-4 C	_v >	,	
UIII ID. QAF.0000									rad O	K yes	/ no	

Last Page of Data Report