



ecology and environment engineering, p.c.

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May 12, 2005

Mr. David Chiusano, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Construction Services
625 Broadway, 12th Floor
Albany, New York 12233 - 7010

Re: Mr. C's Dry Cleaners Site, Contract # D004180, Site # 9-15-157
April 2005 Operations, Maintenance, and Monitoring Report

Dear Mr. Chiusano:

Ecology and Environment Engineering, P.C. (EEEPC) is pleased to provide this April 2005 Operation, Maintenance, and Monitoring (OM&M) Report for the Mr. C's Dry Cleaners Site, NYSDEC Site # 9-15-157, located in East Aurora, New York. Copies of weekly inspection reports from EEEPC's subcontractor O&M Enterprises, Inc. (OMEI) are provided as Attachment A. Selected pages from the individual analytical data packages prepared by Severn - Trent Laboratories (STL) are provided as Attachments B. All analytical results for the report were analyzed at the lowest detection limits in accordance with the method standard. Remedial treatment system utility costs are provided as Attachment C.

The system was shutdown on April 4, 2005 as a result of receiving analytical results from March 7, 2005 indicating non-compliance of Tetrachloroethene exceeding the 10 ug/L permit requirement. The analytical result was 15 ug/L. An action plan was discussed with Mr. Dave Syzmanski, NYSDEC Region 9 and initiated by performing a cleaning of the air stripping unit trays and discussions with the equipment manufacturer for alternative sequestering agents to be used.

Discussions were performed with the original air stripper manufacturer, North East Environmental Products, Inc. (NEEP) and contact was made with Redux Technologies, Inc. Recent system analytical and problematic information was exchanged with the Redux representatives. EEEPC's discussion with Redux was that the analytical results indicated a calcium carbonate problem in the raw groundwater which occluded the stripper tray aeration holes and reduced treatment efficiency of the volatile organics in the groundwater. The increase in differential pressure from the top and bottom of the air stripper correlates to the reduction in the treatment efficiency of the unit.

The air stripping unit was again cleaned on Friday, April 8, 2005 and brought back on line the same day.

In discussions with Mr. Martin Doster and Mr. Dave Syzmanski, Region 9 NYSDEC officials on April 12, 2005, EEEPC's intent was to shutdown the primary treatment unit

until the new sequestering agent could be brought on-line. Instead, the treatment unit remained operational during April 2005 and will be scheduled to be re-cleaned prior to the installation of the new sequestering agent.

A new Water Treatment Chemical (WTC) application was submitted to Mr. Dave Syzmanski on April 28, 2005 for signature and review by NYSDEC, Division of Water. The application requested a change in sequestering agent to Redux 380 from the previously approved Carus Quest 101.

In review of the on-site treatment system operations, monitoring and maintenance for April 2005, EEEPC offers the following comments and highlights:

Operational Summary

- The treatment system was operational for 87.5% of the period between 4/4/05 and 5/2/05. The primary reduction in operational time was the shut down of cleaning from 4/4/05 to 4/8/05. Table 1 is provided to indicate the monthly operational time of the treatment equipment from the time of system startup.
- The effluent totalizer readings for the month of April 2005 indicate that approximately 1,652,510 gallons of groundwater were processed through the treatment system from 4/4/05 through 5/2/05. Table 2 provides a summary of groundwater volume treated since system start-up. Historical volumes are based on totalizer readings provided by the O&M subcontractor's weekly inspection forms.
- Piezometer measurements around the groundwater pumping wells were collected on 4/4/05 and 5/2/05 at the time of compliance sampling for April. OMEI had limited difficulties obtaining piezometer readings due to vehicles parked over the top of some covers and snow covering a few of the other off-site piezometers.
- Filters in the bag filter unit were replaced during weekly inspections on 4/4/05, 4/11/05, 4/18/05, 4/25/05 and 5/2/05.
- Checklists for weekly system inspections from OMEI are provided as Attachment A for 4/4/05, 4/11/05, 4/18/05, 4/25/05 and 5/2/05. Weekly system checks indicate that the air stripper differential pressure and vacuum has increased over the month. Additional performance monitoring will be performed to evaluate air stripper system efficiency.
- A copy of the site utility costs from EEEPC operations from October 2004 to date is provided as Attachment C.
- A copy of the MSDS for the proposed new sequestering agent - Redux 380 has been provided as Attachment D.

Analytical Summary - Groundwater

- EEEPC and OMEI personnel collected weekly samples of influent and effluent groundwater on April 11, 2005 for the reporting period (4/4/05 and 5/2/05) as part of the normal O&M services. At the request of the Department the lowest possible method detection limits were used for the analysis. The results are discussed below.

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- The VOCs detected in the influent and effluent groundwater during the April 2005 sampling events are presented in Table 3.
- The April 2005 analytical results (6.8 ug/L) indicate that the treated groundwater effluent was below the compliance (10 ug/L) with the Effluent Limitation Requirements for VOCs specifically Tetrachloroethene (PCE). A comparison between the April 2005 analytical results and the Effluent Limitation Requirements for the site are provided in Table 4.
- Approximately 15.96 pounds of VOCs were removed from the influent groundwater based on calculations using the effluent discharge analytical results during the reporting period. A summary of the calculated removal volumes is located in Table 5. These values are calculated based on totalizer readings and assumes that non-detect values given in the analytical data package = 0 µg/L and that the monthly samples are indicative of the influent characteristics and system performance for the entire reporting period.

In addition to the above O & M service work, the subslab depressurization system was completed in January 2005. The indoor ambient air sampling was performed on February 14, 2005 and the final report issued to the Department and New York State Department of Health on March 17, 2005. The results indicated successful operation of the depressurization unit. EEEPC staff will be checking with the Bill Larson of the First Presbyterian Church and the owner of the 27 Whaley Avenue property on the status of the operations of the systems.

Also in April 2005, the Agway property air sparge and soil vapor extraction (AS/SVE) system became operational. This was a restart of the remedial treatment system previously operated by Matrix Environmental Technologies, Inc. from January 2000 to January 2004. OMEI is still evaluating the individual AS and SVE points for proper operation. The intent is to operate the system an additional 6 months with purging and sampling the existing monitoring wells in either August or September 2005. Additional information will be provided in future O&M reports.

If you have any questions regarding the April 2005 O&M report summary submitted, please call me a 716-684-8060.

Very Truly Yours,



Michael G. Steffan
Project Manager
Ecology and Environment Engineering, P. C.

cc: D. Szymanski/G. Sutton, Region 9, NYSDEC - Buffalo w/o attachments
R. Becken, O&M Enterprises w/o attachments
D. Miller, E&E-Buffalo w/o attachments
CTF- 000699.NY06.05

Table 1
Mr. C's Dry Cleaners Site Remediation
Site #9-15-157
System Operational Time

Month	Reporting Hours	Operational Up-time
September 2002	576	100%
October 2002	744	99.33%
November 2002	720	93.41%
December 2002	744	80.65%
January 2003	744	59.15%
February 2003	672	63.39%
March 2003	744	82.39%
April 2003	720	100%
May 2003	744	100%
June 2003	720	90.00%
July 2003	744	100%
August 2003	744	100%
September 1-4, 2003	96	100%
October 22 -29, 2003	168	100%
October 29 - November 25, 2003	648	99%
November 25 - December 29, 2003	816	100%
December 29, 2003 – January 26, 2004	672	100%
January 26 – February 24, 2004	696	100%
February 24 – March 29, 2004	816	99.97%
March 29 – April 26, 2004	672	99.70%
April 26 – May 24, 2004	696	73.70%
May 24 – June 21, 2004	696	99.43%
June 22 – July 26, 2004	840	100%
July 27 – August 23, 2004	672	100%
August 23 - September 27, 2004	840	97.62%
September 27 - October 25, 2004	672	90.33%
October 25 - November 23, 2004	696	92.17%
November 23 - December 27, 2004	816	97.06%
December 27, 2004 - January 31, 2005	840	100%
January 31, 2005 - February 28, 2005	660	98.20%
February 28, 2005 - April 4, 2005	828	98.60%
April 4, 2005 - May 2, 2005	696	87.50%

Average Operational Up-time = 93.80%

NOTES:

1. Up-time based as percentage of total reporting hours
2. Treatment system operated by the Tyree Organization Ltd. from 9/02-9/03.
3. Treatment system operated by O&M Enterprises from 10/03 - present.

Table 2
Mr. C's Dry Cleaners Site Remediation
Site #9-15-157
Monthly Process Water Volumes

Month	Actual Period	Gallons
September 2002 ¹	9/5/02 - 10/2/02	4,362,477
October 2002 ¹	10/2/02 - 11/4/02	4,290,429
November 2002 ¹	11/4/02 - 12/2/02	3,326,126
December 2002 ¹	12/2/02 - 1/7/03	3,349,029
January 2003 ¹	1/7/03 - 2/3/03	1,973,144
February 2003 ¹	2/3/03 - 3/10/03	2,158,771
March 2003 ¹	3/10/03 - 4/7/03	3,263,897
April 2003 ¹	4/7/03 - 5/2/03	2,574,928
May 2003 ¹	5/2/03 - 6/2/03	1,652,538
June 2003 ¹	6/2/03 - 6/30/03	2,002,990
July 2003 ¹	6/30/03 - 7/29/03	2,543,978
August 2003 ¹	7/29/03 - 8/25/03	2,042,424
September 2003 ¹	8/25/03 - 10/22/03	370,446
October 2003 ²	10/22/03 - 10/29/03	67,424
November 2003 ²	10/29/03 - 11/25/03	224,278
December 2003 ²	11/25/03 - 12/29/03	1,496,271
January 2004 ²	12/29/03 - 01/26/04	688,034
February 2004 ²	01/26/04 - 02/24/04	736,288
March 2004 ²	02/24/04 - 03/29/04	2,164,569
April 2004 ²	03/29/04 - 04/26/04	1,741,730
May 2004 ²	4/26/2004 - 5/24/2004	1,408,095
June 2004 ²	5/24/2004 - 6/21/2004	972,132
July 2004 ²	6/22/2004 - 7/26/2004	1,858,790
August 2004 ²	7/27/04 - 8/23/04	1,289,960
September 2004 ²	8/23/04 - 9/27/04	1,201,913
October 2004 ²	9/27/04 - 10/25/04	937,560
November 2004 ²	10/25/04 - 11/23/04	1,098,158
December 2004 ²	11/23/04 - 12/27/04	1,556,063
January 2005 ²	12/27/04 - 1/31/05	1,798,238
February 2005 ²	1/31/05 - 2/28/05	1,271,562
March 2005 ²	2/28/05 - 4/4/05	1,295,692
April 2005 ²	4/4/05 - 5/2/05	1,652,510
TOTAL GALLONS		57,370,444

NOTES:

1. System operated by Tyree Organization Ltd. From 9/02 - 9/03
2. System operated by O&M Enterprises from 10/03 - present

Table 3
Mr. C's Dry Cleaners Site Remediation
NYSDEC Site #9-15-157
April 2005 VOC Analytical Summary

Compound	April 11, 2005			April Compliance	
	Influent Concentration (µg/L)	Effluent Concentration (µg/L)	Cleanup Efficiency (%)	Influent Concentration (µg/L)	Effluent Concentration (µg/L)
2-Butanone	ND (<400)	ND (<20)	NA	ND (<400)	ND (<20)
4-Methyl-2-pentanone	ND (<400)	ND (<20)	NA	ND (<400)	ND (<20)
Acetone	ND (<40)	100.0	NA	ND (<40)	100.0
cis-1,2-Dichloroethene	ND (<40)	ND (<2)	NA	ND (<40)	ND (<2)
Ethylbenzene	ND (<40)	ND (<2)	NA	ND (<40)	ND (<2)
Methyl tert-butyl ether	ND (<200)	ND (<10)	NA	ND (<200)	ND (<10)
Methylene chloride	69	2.2	B	69	2.2
Styrene	ND (<40)	ND (<2)	NA	ND (<40)	ND (<2)
Tetrachloroethene	1200	6.8	99.43%	1200	6.8
Toluene	ND (<40)	2.7	NA	ND (<40)	2.7
Trichloroethene	ND (<40)	ND (<2)	NA	ND (<40)	ND (<2)
April TOTAL (in ug/L) =				1269	111.7

Notes:

1. "NA" = Not applicable
2. "ND" = Non-detect and lists the detection limit in parentheses
3. "J" indicates an estimated value below the practical quantitation limit but above the method detection limit.
4. Non-detect values are assumed to be equal to zero for calculation of monthly average concentrations.
5. "B" = Method blanks that contain concentrations of target analyte at a reportable level.

Table 4
Mr. C's Dry Cleaners Site Remediation
Site #9-15-157
Effluent Discharge Criteria & Analytical Compliance Results

Parameter	Daily Maximum ¹	Units	April 11, 2005 Effluent Analytical Values
Flow	216,000	gpd	65,123.55 gpd ⁶
pH	6.0 - 9.0	standard units	8.15
1,1 Dichloroethene	10	µg/L	ND (<2.00)
1,2 Dichloroethane	10	µg/L	ND (<2.00)
Trichloroethene	10	µg/L	ND (<2.00)
Tetrachloroethene	10	µg/L	6.8
Vinyl Chloride	10	µg/L	ND (<2.00)
Benzene	5	µg/L	ND (<2.00)
Ethylbenzene	5	µg/L	ND (<2.00)
Methylene Chloride	10	µg/L	2.2
1,1,1 Trichloroethane	10	µg/L	ND (<2.00)
Toluene	5	µg/L	2.7
Methyl-t-Butyl Ether (MTBE)	NA	ug/L	ND (<10.00)
o-Xylene ³	5	µg/L	NA
m, p-Xylene ³	10	µg/L	NA
Total Xylenes	NA	ug/L	NA
Iron, total	600	µg/L	NA
Aluminum	4,000	µg/L	NA
Copper	48	µg/L	NA
Lead	11	µg/L	NA
Manganese	2,000	µg/L	NA
Silver	100	µg/L	NA
Vanadium	28	µg/L	NA
Zinc	230	µg/L	NA
Total Dissolved Solids	850	mg/L	NA
Total Suspended Solids	20	mg/L	NA
Hardness	N/A	mg/l	508
Cyanide, Free	10	µg/L	NA

NOTES:

1. "Daily Maximum" excerpted from Attachment E of Addendum 1 to the Construction Contract Documents.
2. Analytical report did not differentiate between o-Xylene and m, p-Xylene. Total Xylene value reported is given in each line.
3. Shaded cells indicate that analytical value exceeds the "Daily Maximum"
4. "ND" indicates that the compound was not detected and lists the practical quantitation limit in parentheses.
5. "NA" indicates that analyses were not performed and data is unavailable.
6. Average flows based on effluent readings taken April 4 through May 2, 2005. Total gallons 1,652,510 divided by 25.375 operating days.

Table 5
Mr. C's Dry Cleaners Site Remediation
Site #9-15-157
Monthly VOCs Removed From Groundwater

Month	Actual Period	Influent VOCs (µg/L)	Effluent VOCs (µg/L)	VOCs Removed (lbs.)
September 2002 ⁶	9/5/02 - 10/2/02	1297	1	47.2
October 2002 ⁶	10/2/02 - 11/4/02	2000	1	71.6
November 2002 ⁶	11/4/02 - 12/2/02	1685	0	46.8
December 2002 ⁶	12/2/02 - 1/7/03	1586	9	44.1
January 2003 ⁶	1/7/03 - 2/3/03	1803	10	29.5
February 2003 ⁶	2/3/03 - 3/10/03	1985	3	35.7
March 2003 ⁶	3/10/03 - 4/7/03	1990	5	54.1
April 2003 ⁶	4/7/03 - 5/2/03	1656	3	35.5
May 2003 ⁶	5/2/03 - 6/2/03	1623	7	22.3
June 2003 ⁶	6/2/03 - 6/30/03	5787	6	96.6
July 2003 ⁶	6/30/03 - 7/29/03	1356	1	28.8
August 2003 ⁶	7/29/03 - 8/25/03	1263	3	21.5
September 2003 ⁶	8/25/03 - 10/22/03	1263	3	3.9
October 2003 ⁷	10/22/03 - 10/29/03	1693.69	1.47	1.0
November 2003 ⁷	10/29/03 - 11/25/03	2510.83	4.4	4.7
December 2003 ⁷	11/25/03 - 12/29/03	503.3	10.5	6.2
January 2004 ⁷	12/29/03 - 01/26/04	3667	15.8	21.0
February 2004 ⁷	01/26/04 - 02/24/04	3348.6	26.7	20.4
March 2004 ⁷	02/24/04 - 03/29/04	1939.3	4.96	34.9
April 2004 ⁷	03/29/04 - 04/26/04	2255	0.0	32.8
May 2004 ⁷	4/26/2004 - 5/24/2004	2641	13.3	30.9
June 2004 ⁷	5/24/2004 - 6/21/2004	1454	1.7	22.5
July 2004 ⁷	6/22/2004 - 7/26/2004	1313	3.6	20.3
August 2004 ⁷	7/27/04 - 8/23/04	2305	7.4	24.7
September 2004 ⁷	8/23/04 - 9/27/04	1453	6.7	14.5
October 2004 ⁷	9/27/04 - 10/25/04	1504	14.3	11.7
November 2004 ⁷	10/25/04 - 11/23/04	1480	36.42	13.2
December 2004 ^{7,8}	11/23/04 - 12/27/04	1562	132.21	18.6
January 2005 ⁷	12/27/04 - 1/31/05	1264	47.5	18.3
February 2005 ⁹	1/31/05 - 2/28/05	1538	53.2	15.8
March 2005 ⁹	2/28/05 - 4/4/05	931	56.0	9.5
April 2005 ⁹	4/4/05 - 5/2/05	1269	111.7	15.96
Total pounds of VOCs removed from inception =				874.2

NOTES:

1. Calculations are based on monthly water samples and assumes samples are representative of the entire reporting period.
2. Calculations assume that non-detect values = 0 ug/L.
Total VOCs summations include estimated "J" values.
3. Calculations are based on totalizer readings.
4. "Influent VOCs" and "Effluent VOCs" values given above is the summation of values for individual compounds given in monthly analytical reports.
5. No samples were collected in September 2003. August 2003 values are used.
6. Treatment system operated by Tyree Organization, Ltd. from 9/02 to 9/03.
7. Treatment system operated by O&M Enterprises from 10/03 to present.
8. Average influent and effluent concentrations used for December 2004.
9. Compliance sampling from April 11, 2005 used for monthly calculations.

CONVERSIONS:

1 pound = 453.5924 grams
1 gallon = 3.785 liters

Pounds of VOCs removed calculated by the following formula:

$$(1269 \text{ ug/L} - 111.7 \text{ ug/L}) * (1 \text{ g} / 10^6 \text{ ug}) * (1 \text{ lb} / 453.5924 \text{ g}) * 1,652,510 \text{ gallons} * (3.785 \text{ L} / \text{gallon}) \sim 15.96 \text{ lbs}$$

where 1,652,510 gallons is the monthly process water volume.

Attachment A
OMEI Weekly Inspection Reports
April 2005

Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form

Date/Time 4/4/05 9:10

Inspection personnel RC Becken

Other personnel on site J. Mayes

Weather Conditions sunny 37 degrees

Are all well pumps operating in auto? (YES) NO

If "NO", provide explanation

Provide water level readings on control panel

RW-1	(ON)	OFF	<u>7</u>	ft
PW-2	ON	(OFF)	<u>5</u>	ft
PW-3	ON	(OFF)	<u>3</u>	ft
PW-4	ON	(OFF)	<u>6</u>	ft
PW-5	(ON)	OFF	<u>8</u>	ft
PW-6	ON	(OFF)	<u>5</u>	ft
PW-7	(ON)	OFF	<u>8</u>	ft
PW-8	ON	(OFF)	<u>5</u>	ft
Equalization tank			<u>4</u>	ft

Influent Flow Rate 25.9 gpm

Influent Totalizer Reading 6036276 gallons

Sequestering agent drum level 0 ft-in

Amount of sequestering agent remaining 0 gallons

Sequestering agent feed rate 0 gpm

Sequestering agent metering Pump Pressure 0 psi

Bag filter top pressure 30 psi

Bag filter bottom pressure 0 psi

**Mr. C's Dry Cleaners Site
 NYSDEC Site #9-15-157
 System Inspection Form**

Influent feed pump in use #1 (#2)

Influent Pump Pressure _____ 7 psi

Air stripper blower in use (#1) #2

Air stripper differential pressure _____ 0.12 inches H₂O

Air stripper r Pressure _____ 43 inches H₂O

Effluent feed pump in use #1 (#2)

Effluent feed pump pressure _____ 8 psi

Effluent flow rate _____ ~90 gpm

Effluent Totalizer reading _____ 9413121 gallons

Are building heaters in use? (YES) NO

Ambient air temperature _____ 58 degrees F

Are any leaks present? YES (NO)

Is sump pump in use? YES (NO)

Water level in sump _____ 4"

Is treatment building clean and organized? (YES) NO

Samples collected? YES (NO)

	Sample ID	Time of Sampling	pH	Turbidity	Temp.
Air stripper influent					
Air stripper effluent					
GAC influent	_____		NA	NA	
GAC effluent	_____		NA	NA	

Is there evidence of tampering/vandalism of wells? YES (NO)

Were manholes inspected? YES NO

Were electrical boxes inspected? YES (NO)

Is water present in any manholes or electrical boxes? (YES) NO

(If yes, provide manhole/electric box ID and description of any corrective measures on the following page.)

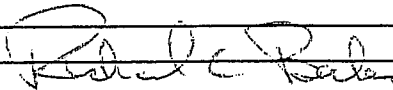
Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form

Other observations: _____

Mike Steffan of E&E called to inform me of an exceedance in March 2005 analytical for effluent discharge, therefore I will shutdown the system until the stripper trays can be inspected and cleaned.

Describe any other system maintenance performed
Changed filters after which the influent flow increased to 75.4 gpm

Signature



Mr. C's Dry Cleaners Site
 NYSDEC Site #9-15-157
 Piezometer Water Level Log

Date 4/4/2005

Measurements taken by RC Becken J. Mays

RW-1	<u>23.68</u>	ft	Comments _____
PZ-1A	<u>10.63</u>	ft	Comments _____
PZ-1B	<u>10.3</u>	ft	Comments _____
PZ-1C	<u>11.44</u>	ft	Comments _____
PZ-1D	_____	ft	Comments <u>covered with parked car</u>
PW-2	_____	ft	Comments <u>snow covered</u>
PZ-2A	_____	ft	Comments <u>snow covered</u>
PZ-2B	_____	ft	Comments <u>snow covered</u>
PZ-2C	_____	ft	Comments <u>snow covered</u>
PZ-2D	_____	ft	Comments <u>snow covered</u>
PW-3	_____	ft	Comments <u>snow covered</u>
PZ-3A	_____	ft	Comments <u>snow covered</u>
PZ-3B	_____	ft	Comments <u>snow covered</u>
PZ-3C	_____	ft	Comments <u>snow covered</u>
PZ-3D	<u>10.64</u>	ft	Comments _____
PW-4	<u>21.1</u>	ft	Comments _____
PZ-4A	<u>10.72</u>	ft	Comments _____
PZ-4B	<u>10.14</u>	ft	Comments _____
PZ-4C	<u>9.61</u>	ft	Comments _____
PZ-4D	<u>10.33</u>	ft	Comments _____

RW-1 pump on during measurements? (YES) NO
 PW-2 pump on during measurements? (YES) NO
 PW-3 pump on during measurements? (YES) NO
 PW-4 pump on during measurements? (YES) NO

Mr. C's Dry Cleaners Site
 NYSDEC Site #9-15-157
 Piezometer Water Level Log

Date 4/4/2005

Measurements taken by RC Becken J. Mayes

PW-5	<u>15.5</u>	ft	Comments _____
PZ-5A	<u>9.55</u>	ft	Comments _____
PZ-5B	<u>9.89</u>	ft	Comments _____
PZ-5C	<u>9.45</u>	ft	Comments _____
PZ-5D	<u>10.25</u>	ft	Comments _____
PW-6	<u>20.4</u>	ft	Comments _____
PZ-6A	_____	ft	Comments <u>snow covered</u>
PZ-6B	<u>10.53</u>	ft	Comments _____
PZ-6C	_____	ft	Comments <u>snow covered</u>
PZ-6D	<u>10.45</u>	ft	Comments _____
PW-7	<u>17.32</u>	ft	Comments _____
MPI-6S	_____	ft	Comments <u>snow covered</u>
PZ-7B	<u>11.02</u>	ft	Comments _____
OW-B	<u>10.8</u>	ft	Comments _____
PZ-7D	_____	ft	Comments <u>snow covered</u>
PW-8	<u>19.8</u>	ft	Comments _____
PZ-8A	<u>7.34</u>	ft	Comments _____
PZ-8B	<u>7.25</u>	ft	Comments _____
PZ-8C	<u>6.81</u>	ft	Comments _____
PZ-8D	<u>7.1</u>	ft	Comments _____

PW-5 pump on during measurements? (YES) NO
 PW-6 pump on during measurements? (YES) NO
 PW-7 pump on during measurements? (YES) NO
 PW-8 pump on during measurements? (YES) NO

Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form

Date/Time 4/11/05 9:30

Inspection personnel Richard C. Becken

Other personnel on site Jim Mayes

Weather Conditions sunny 47 degrees

Are all well pumps operating in auto? (YES) NO
If "NO", provide explanation

Provide water level readings on control panel

RW-1	(ON)	OFF	<u>8</u>	ft
PW-2	ON	(OFF)	<u>5</u>	ft
PW-3	(ON)	OFF	<u>7</u>	ft
PW-4	ON	(OFF)	<u>6</u>	ft
PW-5	(ON)	OFF	<u>10</u>	ft
PW-6	ON	(OFF)	<u>7</u>	ft
PW-7	ON	(OFF)	<u>8</u>	ft
PW-8	ON	(OFF)	<u>4</u>	ft
Equalization tank			<u>4</u>	ft

Influent Flow Rate 49 gpm

Influent Totalizer Reading 6279965 gallons

Sequestering agent drum level 0 ft-in

Amount of sequestering agent remaining 0 gallons

Sequestering agent feed rate 0 gpm

Sequestering agent metering Pump Pressure 0 psi

Bag filter top pressure 8 psi

Bag filter bottom pressure 0 psi

**Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form**

Influent feed pump in use #1 (#2)

Influent Pump Pressure _____ 7 psi

Air stripper blower in use (#1) #2

Air stripper differential pressure _____ 0.2 inches H₂O

Air stripper r Pressure _____ 22 inches H₂O

Effluent feed pump in use (#1) #2

Effluent feed pump pressure _____ 8 psi

Effluent flow rate _____ ~90 gpm

Effluent Totalizer reading _____ 9561537 gallons

Are building heaters in use? YES (NO)

Ambient air temperature _____ 54 degrees F

Are any leaks present? (YES) NO

Is sump pump in use? YES (NO)

Water level in sump _____ 4"

Is treatment building clean and organized? (YES) NO

Samples collected? (YES) NO

	Sample ID	Time of Sampling	pH	Turbidity	Temp.
Air stripper influent		10:00	7.41	7.97	52.1
Air stripper effluent			7.84	8.53	55
GAC influent	_____		NA	NA	
GAC effluent	_____		NA	NA	

Is there evidence of tampering/vandalism of wells? YES (NO)

Were manholes inspected? YES (NO)

Were electrical boxes inspected? YES (NO)

Is water present in any manholes or electrical boxes? (YES) NO

(If yes, provide manhole/electric box ID and description of any corrective measures on the following page.)

**Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form**

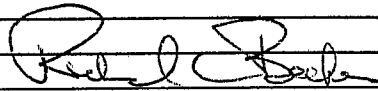
Other observations:

As per Mr. Steffan and my telephone conversation, the system was again shutdown to prevent additional mineral deposit buildup in the stripper tray until a new sequestering agent is received. Shutdown occurred after the water samples were taken appr. 11:00 am.

Describe any other system maintenance performed

The filter was changed increasing flow to 73 gpm.

Signature



Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form

Date/Time 4/18/05 9:10

Inspection personnel RC Becken

Other personnel on site Larry R.

Weather Conditions clear sunny 50 degrees

Are all well pumps operating in auto? (YES) NO
If "NO", provide explanation

Provide water level readings on control panel

RW-1	(ON)	OFF	<u>14</u>	ft
PW-2	ON	(OFF)	<u>6</u>	ft
PW-3	(ON)	OFF	<u>3</u>	ft
PW-4	(ON)	OFF	<u>7</u>	ft
PW-5	(ON)	OFF	<u>7</u>	ft
PW-6	ON	(OFF)	<u>7</u>	ft
PW-7	(ON)	OFF	<u>8</u>	ft
PW-8	ON	(OFF)	<u>5</u>	ft
Equalization tank			<u>4</u>	ft

Influent Flow Rate 40.25 gpm

Influent Totalizer Reading 6693458 gallons

Sequestering agent drum level 0 ft-in

Amount of sequestering agent remaining 0 gallons

Sequestering agent feed rate 0 gpm

Sequestering agent metering Pump Pressure 0 psi

Bag filter top pressure 25 psi

Bag filter bottom pressure 0 psi

**Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form**

Influent feed pump in use #1 (#2)

Influent Pump Pressure _____ 7 psi

Air stripper blower in use (#1) #2

Air stripper differential pressure _____ 0.21 inches H₂O

Air stripper r Pressure _____ 22 inches H₂O

Effluent feed pump in use (#1) #2

Effluent feed pump pressure _____ 7 psi

Effluent flow rate _____ ~90 gpm

Effluent Totalizer reading _____ 9812029 gallons

Are building heaters in use? YES (NO)

Ambient air temperature _____ 60 degrees F

Are any leaks present? YES (NO)

Is sump pump in use? YES (NO)

Water level in sump _____ 4

Is treatment building clean and organized? (YES) NO

Samples collected? YES (NO)

	Sample ID	Time of Sampling	pH	Turbidity	Temp.
Air stripper influent					
Air stripper effluent					
GAC influent	_____		NA	NA	
GAC effluent	_____		NA	NA	

Is there evidence of tampering/vandalism of wells? YES (NO)

Were manholes inspected? YES NO

Were electrical boxes inspected? YES (NO)

Is water present in any manholes or electrical boxes? (YES) NO

(If yes, provide manhole/electric box ID and description of any corrective measures on the following page.)

Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form

Other observations: _____

Checked alkalinity of influent water and effluent water results as follows:

influent 75 mg/l as CaCo3 low range

influent 300 mg/l as CaCO3 high range

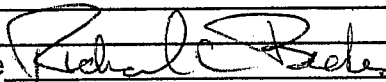
effluent 70 mg/l as CaCO3 low range

effluent 280 mg/l as CaCO3 high range

Describe any other system maintenance performed

Changed filters afterwhich the influent flow increased to 72.15 gpm

Signature



Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form

Date/Time 4/25/05 8:45

Inspection personnel RC Becken

Other personnel on site _____

Weather Conditions overcast 40 degrees

Are all well pumps operating in auto? (YES) NO
If "NO", provide explanation

Provide water level readings on control panel

RW-1	(ON)	OFF	<u>5</u>	ft
PW-2	ON	(OFF)	<u>7</u>	ft
PW-3	(ON)	OFF	<u>6</u>	ft
PW-4	(ON)	OFF	<u>6</u>	ft
PW-5	(ON)	OFF	<u>8</u>	ft
PW-6	ON	(OFF)	<u>4</u>	ft
PW-7	(ON)	OFF	<u>8</u>	ft
PW-8	ON	(OFF)	<u>4</u>	ft
Equalization tank			<u>4</u>	ft

Influent Flow Rate 30.61 gpm

Influent Totalizer Reading 7119835 gallons

Sequestering agent drum level 0 ft-in

Amount of sequestering agent remaining 0 gallons

Sequestering agent feed rate 0 gpm

Sequestering agent metering Pump Pressure 0 psi

Bag filter top pressure 22 psi

Bag filter bottom pressure 0 psi

**Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form**

Influent feed pump in use (#1) #2

Influent Pump Pressure _____ 8 psi

Air stripper blower in use #1 (#2)

Air stripper differential pressure _____ 0.16 inches H₂O

Air stripper r Pressure _____ 31 inches H₂O

Effluent feed pump in use #1 (#2)

Effluent feed pump pressure _____ 10 psi

Effluent flow rate _____ ~90 gpm

Effluent Totalizer reading _____ 10072839 gallons

Are building heaters in use? YES (NO)

Ambient air temperature _____ 60 degrees F

Are any leaks present? YES (NO)

Is sump pump in use? YES (NO)

Water level in sump _____ 4"

Is treatment building clean and organized? (YES) NO

Samples collected? YES (NO)

	Sample ID	Time of Sampling	pH	Turbidity	Temp.
Air stripper influent					
Air stripper effluent					
GAC influent	_____		NA	NA	
GAC effluent	_____		NA	NA	

Is there evidence of tampering/vandalism of wells? YES (NO)

Were manholes inspected? YES NO

Were electrical boxes inspected? YES (NO)

Is water present in any manholes or electrical boxes? (YES) NO

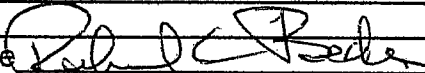
(If yes, provide manhole/electric box ID and description of any corrective measures on the following page.)

Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form

Other observations: _____

Describe any other system maintenance performed

changed filter flow increased to 68.01 gpm

Signature  _____

Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form

Date/Time 5/02/05 9:15

Inspection personnel RC Becken

Other personnel on site _____

Weather Conditions overcast 45 degrees

Are all well pumps operating in auto? (YES) NO
If "NO", provide explanation

Provide water level readings on control panel

RW-1	(ON)	OFF	<u>5</u>	ft
PW-2	(ON)	OFF	<u>4</u>	ft
PW-3	(ON)	OFF	<u>6</u>	ft
PW-4	(ON)	OFF	<u>3</u>	ft
PW-5	(ON)	OFF	<u>8</u>	ft
PW-6	(ON)	OFF	<u>7</u>	ft
PW-7	(ON)	OFF	<u>5</u>	ft
PW-8	(ON)	OFF	<u>4</u>	ft
Equalization tank				ft

Influent Flow Rate 41.19 gpm

Influent Totalizer Reading 7631639 gallons

Sequestering agent drum level 0 ft-in

Amount of sequestering agent remaining 0 gallons

Sequestering agent feed rate 0 gpm

Sequestering agent metering Pump Pressure 0 psi

Bag filter top pressure 23 psi

Bag filter bottom pressure 0 psi

**Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form**

Influent feed pump in use (#1) #2

Influent Pump Pressure _____ 7 psi

Air stripper blower in use #1 (#2)

Air stripper differential pressure _____ 0.08 inches H₂O

Air stripper r Pressure _____ 42 inches H₂O

Effluent feed pump in use (#1) #2

Effluent feed pump pressure _____ 12 psi

Effluent flow rate _____ ~90 gpm

Effluent Totalizer reading _____ 1038631 gallons

Are building heaters in use? YES (NO)

Ambient air temperature _____ 56 degrees F

Are any leaks present? YES (NO)

Is sump pump in use? YES (NO)

Water level in sump _____ 4"

Is treatment building clean and organized? (YES) NO

Samples collected? YES (NO)

	Sample ID	Time of Sampling	pH	Turbidity	Temp.
Air stripper influent					
Air stripper effluent					
GAC influent	_____		NA	NA	
GAC effluent	_____		NA	NA	

Is there evidence of tampering/vandalism of wells? YES (NO)

Were manholes inspected? YES NO

Were electrical boxes inspected? YES (NO)

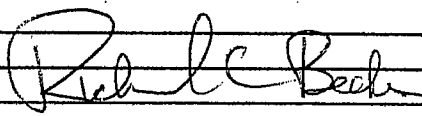
Is water present in any manholes or electrical boxes? (YES) NO

(If yes, provide manhole/electric box ID and description of any corrective measures on the following page.)

**Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
System Inspection Form**

Other observations: Stripper tray pressure extremely high resulting
low air flow.

Describe any other system maintenance performed
Changed filter after which influent flow increased to 71.86 gpm

Signature 

**Mr. C's Dry Cleaners Site
 NYSDEC Site #9-15-157
 Piezometer Water Level Log**

Date 5/2/2005

Measurements taken by RC Becken

PW-5	<u>18.2</u>	ft	Comments _____
PZ-5A	<u>10.57</u>	ft	Comments _____
PZ-5B	<u>10.41</u>	ft	Comments _____
PZ-5C	<u>10.01</u>	ft	Comments _____
PZ-5D	<u>10.81</u>	ft	Comments _____
PW-6	<u>16.5</u>	ft	Comments _____
PZ-6A	<u>11.21</u>	ft	Comments _____
PZ-6B	<u>11.04</u>	ft	Comments _____
PZ-6C	<u>11.29</u>	ft	Comments _____
PZ-6D	<u>11.01</u>	ft	Comments _____
PW-7	<u>19.47</u>	ft	Comments _____
OW-C	<u>11.04</u>	ft	Comments _____
PZ-7B	<u>11.54</u>	ft	Comments _____
MPI6S	<u>10.67</u>	ft	Comments _____
PZ-7D	<u>10.99</u>	ft	Comments _____
PW-8	<u>21.35</u>	ft	Comments _____
PZ-8A	<u>7.91</u>	ft	Comments _____
PZ-8B	<u>7.8</u>	ft	Comments _____
PZ-8C	<u>7.4</u>	ft	Comments _____
PZ-8D	<u>7.61</u>	ft	Comments _____

PW-5 pump on during measurements? YES NO
 PW-6 pump on during measurements? YES NO
 PW-7 pump on during measurements? YES NO
 PW-8 pump on during measurements? YES NO

**Mr. C's Dry Cleaners Site
NYSDEC Site #9-15-157
Piezometer Water Level Log**

Date 5/2/2005

Measurements taken by RC Becken

RW-1	<u> </u>	ft	Comments <u>car parked on well</u>
PZ-1A	<u>10.99</u>	ft	Comments <u> </u>
PZ-1B	<u>10.74</u>	ft	Comments <u> </u>
PZ-1C	<u>11.92</u>	ft	Comments <u> </u>
PZ-1D	<u> </u>	ft	Comments <u>car parked on well</u>
<hr/>			
PW-2	<u>21.31</u>	ft	Comments <u> </u>
PZ-2A	<u>10.55</u>	ft	Comments <u> </u>
PZ-2B	<u>10.9</u>	ft	Comments <u> </u>
PZ-2C	<u>10.31</u>	ft	Comments <u> </u>
PZ-2D	<u> </u>	ft	Comments <u>gone</u>
<hr/>			
PW-3	<u>20.6</u>	ft	Comments <u> </u>
PZ-3A	<u>11.1</u>	ft	Comments <u> </u>
PZ-3B	<u>11.1</u>	ft	Comments <u> </u>
PZ-3C	<u>11.6</u>	ft	Comments <u> </u>
PZ-3D	<u>11.11</u>	ft	Comments <u> </u>
<hr/>			
PW-4	<u>21.1</u>	ft	Comments <u> </u>
PZ-4A	<u>11.3</u>	ft	Comments <u> </u>
PZ-4B	<u>10.61</u>	ft	Comments <u> </u>
PZ-4C	<u>10.78</u>	ft	Comments <u> </u>
PZ-4D	<u>10.12</u>	ft	Comments <u> </u>

RW-1 pump on during measurements?	YES	NO
PW-2 pump on during measurements?	YES	NO
PW-3 pump on during measurements?	YES	NO
PW-4 pump on during measurements?	YES	NO

Attachment B
Selected pages from
Severn-Trent Laboratory
Analytical Data Packages:
A05-3420, A05-3421, A05-3429
April 11, 2005



1/19
STL

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
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ANALYTICAL REPORT

Job#: A05-3420

STL Project#: NY5A9393.3

Site Name: Ecology and Environment NYSDEC Standby

Task: Mr. C's Site-000699.NY06

Mr. Mike Steffan
Ecology and Environment
368 Pleasant View Drive
Lancaster, NY 14086

STL Buffalo



Anthony E. Bogolin
Project Manager

04/19/2005



STL Buffalo Current Certifications

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP SDWA, CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
North Carolina	CWA	411
North Dakota	SDWA, CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington	CWA	C254
West Virginia	CWA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>MATRIX</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
			<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A5342001	AS-Effluent	WATER	04/11/2005	10:00	04/11/2005	18:10
A5342002	AS-Influent	WATER	04/11/2005	09:55	04/11/2005	18:10

METHODS SUMMARY

Job#: A05-3420STL Project#: NY5A9393.3Site Name: Ecology and Environment NYSDEC Standby

PARAMETER	ANALYTICAL	
	METHOD	
pH	MCAWW	150.1
Total Hardness	MCAWW	130.2

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/4-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993)

NON-CONFORMANCE SUMMARY

Job#: A05-3420STL Project#: NY5A9393.3Site Name: Ecology and Environment NYSDEC StandbyGeneral Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A05-3420

Sample Cooler(s) were received at the following temperature(s); 2.8 °C
All samples were received in good condition.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected at or above the reporting limit.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- 1 Indicates coelution.
- * Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

- ND or U Indicates element was analyzed for, but not detected at or above the reporting limit.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- K Indicates the post digestion spike recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- M Indicates duplicate injection results exceeded quality control limits.
- W Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- * Indicates analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Sample Data Package

Date: 04/19/2005
Time: 13:09:45

Ecology and Environment NYSDEC Standby
Mr. C's Site-000699.NY06

8/19 Page: 1
Rept: AN1178

Sample ID: AS-Effluent
Lab Sample ID: A5342001
Date Collected: 04/11/2005
Time Collected: 10:00

Date Received: 04/11/2005
Project No: NY5A9393.3
Client No: 397714
Site No:

Parameter	Result	Flag	Detection	Units	Method	Date/Time	
			Limit			Analyzed	Analyst
Wet Chemistry Analysis							
pH	8.15		0	S.U.	150.1	04/12/2005 18:25	SM
Total Hardness	508		2.0	MG/L	130.2	04/12/2005 15:00	SM

Date: 04/19/2005

Time: 13:09:45

Ecology and Environment NYSDEC Standby
Mr. C's Site-000699.NY06

9/19 Page: 2
Rept: AN1178

Sample ID: AS-Influent

Lab Sample ID: A5342002

Date Collected: 04/11/2005

Time Collected: 09:55

Date Received: 04/11/2005

Project No: NY5A9393.3

Client No: 397714

Site No:

Parameter	Result	Flag	Detection Limit	Units	Method	Date/Time Analyzed	Analyst
Wet Chemistry Analysis							
pH	7.81		0	s.U.	150.1	04/12/2005 18:25	SM
Total Hardness	492		2.0	MG/L	130.2	04/12/2005 15:00	SM

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

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www.stl-inc.com

ANALYTICAL REPORT

Job#: A05-3421, A05-3429

STL Project#: NY5A9393.3

SDG#: STLNC

Site Name: Ecology and Environment NYSDEC Standby

Task: Mr. C's Site-000699.NY06

Mr. Mike Steffan
Ecology and Environment
368 Pleasant View Drive
Lancaster, NY 14086

STL Buffalo



Anthony E. Bogolin
Project Manager

04/22/2005

STL Buffalo Current Certifications

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP SDWA, CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
North Carolina	CWA	411
North Dakota	SDWA, CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington	CWA	C254
West Virginia	CWA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>MATRIX</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
			<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A5342101	AS-Effluent	WATER	04/11/2005	10:00	04/11/2005	18:10
A5342901	AS-Influent	WATER	04/11/2005	09:55	04/11/2005	18:10

METHODS SUMMARY

Job#: A05-3421, A05-3429STL Project#: NY5A9393.3SDG#: STLNCSite Name: Ecology and Environment NYSDEC Standby

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
METHOD 8260 - TCL VOLATILE ORGANICS	SW8463 8260

SW8463

"Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A05-3421, A05-3429STL Project#: NY5A9393.3SDG#: STLNCSite Name: Ecology and Environment NYSDEC StandbyGeneral Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A05-3421

Sample Cooler(s) were received at the following temperature(s); 2.8 °C
All samples were received in good condition.

A05-3429

Sample Cooler(s) were received at the following temperature(s); 2.8 °C
All samples were received in good condition.

GC/MS Volatile Data

Volatile Organics were subcontracted to STL North Canton. The complete subcontract report is included in this report as Appendix A. Comments pertaining to Volatile Organics may be found within the comment summary of the subcontract report.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Date: 04/22/2005
Time: 17:24:03

Dilution Log w/Code Information
For Project NY5A9393.3, SDG STLNC

6/36 Page: 1
Rept: AN1266R

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Parameter (Inorganic)/Method (Organic)</u>	<u>Dilution</u>	<u>Code</u>
AS-Effluent	A5342101	8260	2.00	008
AS-Influent	A5342901	8260	40.00	008

Dilution Code Definition:

- 002 - sample matrix effects
- 003 - excessive foaming
- 004 - high levels of non-target compounds
- 005 - sample matrix resulted in method non-compliance for an Internal Standard
- 006 - sample matrix resulted in method non-compliance for Surrogate
- 007 - nature of the TCLP matrix
- 008 - high concentration of target analyte(s)
- 009 - sample turbidity
- 010 - sample color
- 011 - insufficient volume for lower dilution
- 012 - sample viscosity
- 013 - other

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected at or above the reporting limit.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- 1 Indicates coelution.
- * Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

- ND or U Indicates element was analyzed for, but not detected at or above the reporting limit.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- K Indicates the post digestion spike recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- M Indicates duplicate injection results exceeded quality control limits.
- W Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- * Indicates analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Sample Data Package

Date: 04/22/2005
 Time: 17:24:06

Ecology and Environment NYSDEC Standby
 Mr. C's Site-000699.NY06

Sample ID: AS-Effluent
 Lab Sample ID: A5342101
 Date collected: 04/11/2005
 Time collected: 10:00

Date Received: 04/11/2005
 Project No: NY5A9393.3
 Client No: 397714
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time	
			Limit	Units		Analyzed	Analyst
*SUB*AQUEOUS-SW8463 8260 - TCL VOLATILES - 25							
1,1,1-Trichloroethane	ND		2.0	UG/L	8260	04/13/2005	SUB
1,1,2,2-Tetrachloroethane	ND		2.0	UG/L	8260	04/13/2005	SUB
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	UG/L	8260	04/13/2005	SUB
1,1,2-Trichloroethane	ND		2.0	UG/L	8260	04/13/2005	SUB
1,1-Dichloroethane	ND		2.0	UG/L	8260	04/13/2005	SUB
1,1-Dichloroethene	ND		2.0	UG/L	8260	04/13/2005	SUB
1,2,4-Trichlorobenzene	ND		2.0	UG/L	8260	04/13/2005	SUB
1,2-Dibromo-3-chloropropane	ND		4.0	UG/L	8260	04/13/2005	SUB
1,2-Dibromoethane	ND		2.0	UG/L	8260	04/13/2005	SUB
1,2-Dichlorobenzene	ND		2.0	UG/L	8260	04/13/2005	SUB
1,2-Dichloroethane	ND		2.0	UG/L	8260	04/13/2005	SUB
1,2-Dichloropropane	ND		2.0	UG/L	8260	04/13/2005	SUB
1,3-Dichlorobenzene	ND		2.0	UG/L	8260	04/13/2005	SUB
1,4-Dichlorobenzene	ND		2.0	UG/L	8260	04/13/2005	SUB
2-Butanone	ND		20	UG/L	8260	04/13/2005	SUB
2-Hexanone	ND		20	UG/L	8260	04/13/2005	SUB
4-Methyl-2-pentanone	ND		20	UG/L	8260	04/13/2005	SUB
Acetone	100		20	UG/L	8260	04/13/2005	SUB
Benzene	ND		2.0	UG/L	8260	04/13/2005	SUB
Bromodichloromethane	ND		2.0	UG/L	8260	04/13/2005	SUB
Bromoform	ND		2.0	UG/L	8260	04/13/2005	SUB
Bromomethane	ND		2.0	UG/L	8260	04/13/2005	SUB
Carbon Disulfide	ND		2.0	UG/L	8260	04/13/2005	SUB
Carbon Tetrachloride	ND		2.0	UG/L	8260	04/13/2005	SUB
Chlorobenzene	ND		2.0	UG/L	8260	04/13/2005	SUB
Chloroethane	ND		2.0	UG/L	8260	04/13/2005	SUB
Chloroform	ND		2.0	UG/L	8260	04/13/2005	SUB
Chloromethane	ND		2.0	UG/L	8260	04/13/2005	SUB
cis-1,2-Dichloroethene	ND		2.0	UG/L	8260	04/13/2005	SUB
cis-1,3-Dichloropropene	ND		2.0	UG/L	8260	04/13/2005	SUB
Cyclohexane	ND		2.0	UG/L	8260	04/13/2005	SUB
Dibromochloromethane	ND		2.0	UG/L	8260	04/13/2005	SUB
Dichlorodifluoromethane	ND		2.0	UG/L	8260	04/13/2005	SUB
Ethylbenzene	ND		2.0	UG/L	8260	04/13/2005	SUB
Isopropylbenzene	ND		2.0	UG/L	8260	04/13/2005	SUB
Methyl acetate	ND		20	UG/L	8260	04/13/2005	SUB
Methyl-t-Butyl Ether (MTBE)	ND		10	UG/L	8260	04/13/2005	SUB
Methylcyclohexane	ND		2.0	UG/L	8260	04/13/2005	SUB
Methylene chloride	2.2	B	2.0	UG/L	8260	04/13/2005	SUB
Styrene	ND		2.0	UG/L	8260	04/13/2005	SUB
Tetrachloroethene	6.8		2.0	UG/L	8260	04/13/2005	SUB
Toluene	2.7		2.0	UG/L	8260	04/13/2005	SUB
Total Xylenes	ND		4.0	UG/L	8260	04/13/2005	SUB
trans-1,2-Dichloroethene	ND		2.0	UG/L	8260	04/13/2005	SUB
trans-1,3-Dichloropropene	ND		2.0	UG/L	8260	04/13/2005	SUB
Trichloroethene	ND		2.0	UG/L	8260	04/13/2005	SUB
Trichlorofluoromethane	ND		2.0	UG/L	8260	04/13/2005	SUB
Vinyl chloride	ND		2.0	UG/L	8260	04/13/2005	SUB

Sample ID: AS-Influent

Lab Sample ID: A5342901

Date Collected: 04/11/2005

Time Collected: 09:55

Date Received: 04/11/2005

Project No: NY5A9393.3

Client No: 397714

Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
*SUB*AQUEOUS-SW8463 8260 - TCL VOLATILES - 25								
1,1,1-Trichloroethane	ND		40	UG/L	8260	04/13/2005		SUB
1,1,2,2-Tetrachloroethane	ND		40	UG/L	8260	04/13/2005		SUB
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	UG/L	8260	04/13/2005		SUB
1,1,2-Trichloroethane	ND		40	UG/L	8260	04/13/2005		SUB
1,1-Dichloroethane	ND		40	UG/L	8260	04/13/2005		SUB
1,1-Dichloroethene	ND		40	UG/L	8260	04/13/2005		SUB
1,2,4-Trichlorobenzene	ND		40	UG/L	8260	04/13/2005		SUB
1,2-Dibromo-3-chloropropane	ND		80	UG/L	8260	04/13/2005		SUB
1,2-Dibromoethane	ND		40	UG/L	8260	04/13/2005		SUB
1,2-Dichlorobenzene	ND		40	UG/L	8260	04/13/2005		SUB
1,2-Dichloroethane	ND		40	UG/L	8260	04/13/2005		SUB
1,2-Dichloropropane	ND		40	UG/L	8260	04/13/2005		SUB
1,3-Dichlorobenzene	ND		40	UG/L	8260	04/13/2005		SUB
1,4-Dichlorobenzene	ND		40	UG/L	8260	04/13/2005		SUB
2-Butanone	ND		400	UG/L	8260	04/13/2005		SUB
2-Hexanone	ND		400	UG/L	8260	04/13/2005		SUB
4-Methyl-2-pentanone	ND		400	UG/L	8260	04/13/2005		SUB
Acetone	ND		400	UG/L	8260	04/13/2005		SUB
Benzene	ND		40	UG/L	8260	04/13/2005		SUB
Bromodichloromethane	ND		40	UG/L	8260	04/13/2005		SUB
Bromoform	ND		40	UG/L	8260	04/13/2005		SUB
Bromomethane	ND		40	UG/L	8260	04/13/2005		SUB
Carbon Disulfide	ND		40	UG/L	8260	04/13/2005		SUB
Carbon Tetrachloride	ND		40	UG/L	8260	04/13/2005		SUB
Chlorobenzene	ND		40	UG/L	8260	04/13/2005		SUB
Chloroethane	ND		40	UG/L	8260	04/13/2005		SUB
Chloroform	ND		40	UG/L	8260	04/13/2005		SUB
Chloromethane	ND		40	UG/L	8260	04/13/2005		SUB
cis-1,2-Dichloroethene	ND		40	UG/L	8260	04/13/2005		SUB
cis-1,3-Dichloropropene	ND		40	UG/L	8260	04/13/2005		SUB
Cyclohexane	ND		40	UG/L	8260	04/13/2005		SUB
Dibromochloromethane	ND		40	UG/L	8260	04/13/2005		SUB
Dichlorodifluoromethane	ND		40	UG/L	8260	04/13/2005		SUB
Ethylbenzene	ND		40	UG/L	8260	04/13/2005		SUB
Isopropylbenzene	ND		40	UG/L	8260	04/13/2005		SUB
Methyl acetate	ND		400	UG/L	8260	04/13/2005		SUB
Methyl-t-Butyl Ether (MTBE)	ND		200	UG/L	8260	04/13/2005		SUB
Methylcyclohexane	ND		40	UG/L	8260	04/13/2005		SUB
Methylene chloride	69	B	40	UG/L	8260	04/13/2005		SUB
Styrene	ND		40	UG/L	8260	04/13/2005		SUB
Tetrachloroethene	1200		40	UG/L	8260	04/13/2005		SUB
Toluene	ND		40	UG/L	8260	04/13/2005		SUB
Total Xylenes	ND		80	UG/L	8260	04/13/2005		SUB
trans-1,2-Dichloroethene	ND		40	UG/L	8260	04/13/2005		SUB
trans-1,3-Dichloropropene	ND		40	UG/L	8260	04/13/2005		SUB
Trichloroethene	ND		40	UG/L	8260	04/13/2005		SUB
Trichlorofluoromethane	ND		40	UG/L	8260	04/13/2005		SUB
Vinyl chloride	ND		40	UG/L	8260	04/13/2005		SUB

Chronology and QC Summary Package

SAMPLE CHRONOLOGY

METHOD 8260 - TCL VOLATILE ORGANICS

Client Sample ID Job No. & Lab Sample ID	AS-Effluent A05-3421 A5342101	AS-Influent A05-3429 A5342901
Sample Date	04/11/2005 10:00	04/11/2005 09:55
Received Date	04/11/2005 18:10	04/11/2005 18:10
Extraction Date	04/13/2005	04/13/2005
Analysis Date	---	---
Extraction HT Met?	YES	YES
Analytical HT Met?	WATER	WATER
Sample Matrix	2.0	40.0
Dilution Factor		
Sample wt/vol	LITERS	LITERS
% Dry		

Chain of Custody

**Chain of
Custody Record**

TL-4124 (0801)
 Client: **Ecology and Environment Inc.**
 Address: **305 PLEASANT VIEW DRIVE**
 City: **LUNCASTLE** State: **NY** Zip Code: **14086**
 Project Name and Location (State): **MR & MRS DAY CLEANERS**
 Contract/Purchase Order/Quote No.: **Hand Delivered**
 Project Manager: **MIKE STEFFAN**
 Telephone Number (Area Code)/Fax Number: **716-684-6600 / 716-684-0844**
 Date: **4/11/05** Chain of Custody Number: **191935**
 Lab Number: **1** of **1**

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix						Containers & Preservatives	Special Instructions/ Conditions of Receipt									
			Air	Soil	Sed	Aqueous	Unpres.	H2SO4			HNO3	HCl	NaOH	ZnAc					
AS - FLOWN	4/11/05	0955	X			X			X	X									STANDARD TA
AS - EFFLUENT	4/11/05	1000	X			X			X	X									3DOY-TAI

Possible Hazard Identification:
 Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Poison C
 Other

Turn Around Time Required:
 24 Hours
 48 Hours
 7 Days
 14 Days
 21 Days
 Other

Sample Disposal:
 Return To Client
 Disposal By Lab
 Archive For _____ Months

QC Requirements (Specify):

1. Relinquished By: *[Signature]* Date: **4/11/05** Time: **10:35**
 2. Relinquished By: *[Signature]* Date: **4/11/05** Time: **6:10**
 3. Relinquished By: *[Signature]* Date: **4/11/05** Time: **1:18**

Comments: **2.82**

Attachment C
Summary of Site Utility Costs and Projections
October 2003 to April 2005

Mr. C's Dry Cleaners Site - Remedial Treatment Utility Costs
NYSDEC Work Assignment #27.4
12 Months of System Operation and Maintenance

Month	Possible OP Hours	Actual OP Hours	Up-Time Percent	Percent Capacity*
September-03	96	96	100.00%	58%
October-03	168	168	100.00%	6%
November-03	720	720	100.00%	5%
December-03	744	744	100.00%	28%
January-04	672	672	100.00%	16%
February-04	696	696	100.00%	21%
March-04	816	815	99.88%	51%
April-04	672	670	99.70%	50%
May-04	696	513	73.71%	43%
June-04	696	692	99.43%	30%
July-04	840	840	100.00%	47%
August-04	672	672	100.00%	42%
September-04	840	820	97.62%	31%
October-04	672	607	90.33%	33%
November-04	696	641.5	92.17%	37%
December-04	816	792	97.06%	42%
January-05	840	840	100.00%	46%
February-05	672	660	98.21%	41%
March-05	840	828	98.57%	33%
April-05	696	609	87.50%	58%
Totals to Date	13560	13095.5	96.57%	

Monthly Treatment System Operational Time by O&M Services

Month	Possible OP Hours	Actual OP Hours	Up-Time Percent	Percent Capacity*	General Operation Comments
September-03	96	96	100.00%	58%	Shut down by Tyree after Separable Part B inspection Official Startup by O&M Enterprises on 10/22/03
October-03	168	168	100.00%	6%	
November-03	720	720	100.00%	5%	
December-03	744	744	100.00%	28%	
January-04	672	672	100.00%	16%	
February-04	696	696	100.00%	21%	
March-04	816	815	99.88%	51%	
April-04	672	670	99.70%	50%	
May-04	696	513	73.71%	43%	Equipment shutdown-low flow of water to air stripper - 5/17-24/04
June-04	696	692	99.43%	30%	Individual pumps shutdown for inspection and cleaning
July-04	840	840	100.00%	47%	100% operational
August-04	672	672	100.00%	42%	100% operational
September-04	840	820	97.62%	31%	Temporary Stripper Shutdown
October-04	672	607	90.33%	33%	65 hour weekend shutdown due to low pressure problems with the airstripper
November-04	696	641.5	92.17%	37%	
December-04	816	792	97.06%	42%	GAC units removed from treatment system operations
January-05	840	840	100.00%	46%	GAC units removed from project site 1/14/05
February-05	672	660	98.21%	41%	Unit cleaned February 4, 2005
March-05	840	828	98.57%	33%	Unit shut down for additional cleaning and sequestering agent review.
April-05	696	609	87.50%	58%	Unit cleaned April 8, 2005. Back in service until new sequestering agent approved and installed.
Totals to Date	13560	13095.5	96.57%		

* Percent Capacity is based on initial operating groundwater flows from the eight installed pumps from 9/02. Evaluated on total gallons discharged for monthly operating time
 Maximum pump discharges calculated as an average of 78 gpm as the total for all 8 pumps at the site if all pumps operate 100%.

Projected Utility Costs for the O&M year (11/04 to 11/05)

Ave./Month	Electric	Gas	Telephone	Ave. Utility Cost Total
\$	1,793.64	130.07	39.01	\$25,515.31
				12 months

Attachment D
Redux 380 –Sequestering Agent
Material Safety Data Sheet (MSDS)



Material Safety Data Sheet

Product Name: Redux 380

MSDS #: 22

Effective date: 12/15/2004

Page 1 of 6

SECTION 1 -- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

IDENTIFICATION

Product Name Redux 380

Chemical Name Aqueous Blended Deposit Control Agent

Chemical Family

Formula

Synonym

COMPANY IDENTIFICATION

Redux Technology
550 VT Rte. 30, P.O. Box 331
Newfane, VT 05345
Phone: 802-365-7200
Fax: 802-365-4652
Email: info@reduxtech.com

EMERGENCY TELEPHONE NUMBER

24 hours a day: CHEMTREC 1-800-424-9300.

Number for non-emergency questions concerning MSDS: (802) 365-7200

SECTION 2 -- COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Amount (%W/W)</u>
Water	7732-18-5	~60.0%
Polymaleic Acid	26099-09-2	~16.0%
Residual Monomers		< 0.01%
2 phosphono-1,2,4-butanetricarboxylic acid	37971-36-1	~24.0%

Redux Technology
Material Safety Data Sheet

Product Name: Redux 380
 MSDS #: 22

Effective date: 2/10/2004
 Page 2 of 6

SECTION 3 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	Eye and skin irritant. Material may cause burns on exposed tissues. Eye contact may cause corneal injury, which may result in permanent impairment of vision, or even blindness. Prolonged or repeated skin may cause irritation or even a burn.
--------------------	--

POTENTIAL HEALTH EFFECTS	
INGESTION.....	Corrosive and causes severe and permanent damages to mouth throat and stomach. May be fatal if swallowed.
INHALATION.....	Damages airways and lungs, depending upon amount and duration of exposure. Effects can vary from irritation to bronchitis or pneumonia.
EYE CONTACT.....	Severely corrosive to the eyes, and may cause permanent damage, including blindness.
SKIN CONTACT.....	Corrosive; causes severe skin burns. Harmful contact may not cause immediate pain.

SECTION 4 -- FIRST AID MEASURES

INGESTION	If swallowed, DO NOT induce vomiting. Immediately drink a large quantity of water. If available, give large quantities of milk. Never give anything by mouth to an unconscious person. Get medical attention immediately. If vomiting occurs spontaneously, keep airway clear.
INHALATION	Get person out of contaminated area to fresh air. If breathing has stopped, resuscitate and administer oxygen if readily available. Get medical attention immediately.
EYE CONTACT	Immediately flush eye with plenty of cool, running water. Remove contact lenses if applicable and continue flushing for at least 15 minutes, holding eyelids apart to ensure thorough rinsing of the entire eye. Get medical attention immediately.
SKIN CONTACT	Immediately flush skin with plenty of cool running water for at least 15 minutes. Wash with soap and water. If irritation develops or persists, get medical attention. Remove contaminated clothing and shoes; wash before reuse.
NOTE TO PHYSICIAN	Information pertaining to ingestion toxicology, therapy, symptomatology and treatment can be found in <u>Clinical Toxicology of Commercial Products</u> , authored by Gosselin, Smith and Hodge and published by Williams & Wilkins, Baltimore, Maryland.

Redux Technology
Material Safety Data Sheet

Product Name: Redux 380
MSDS #: 22

Effective date: 2/10/2004
Page 3 of 6

SECTION 5 -- FIRE FIGHTING MEASURES

FLASH POINT / METHOD	None / N.A.	FLAMMABLE LIMITS	Not flammable or combustible
EXTINGUISHING MEDIA	Use extinguishing media appropriate for surrounding fire.		
SPECIAL FIRE FIGHTING PROCEDURES	Pressure demand self-contained respiratory protection and protective clothing should be worn by fire fighters.		
FIRE AND EXPLOSION HAZARDS	Not a fire or explosion hazard		

SECTION 6 -- ACCIDENTAL RELEASE MEASURES

RESPONSE TO SPILLS	Absorb with inert material such as vermiculite, shovel into closeable container for disposal. Thoroughly flush residual with water.
--------------------	---

SECTION 7 -- HANDLING AND STORAGE

HANDLING PRECAUTIONS	Wear proper safety equipment. Mix only with water. Follow appropriate tank entry procedures (ANSI Z117) and OSHA Confined Space Regulations.
STORAGE PRECAUTIONS	Store in a cool, dry and well-ventilated place. Keep from freezing. Keep container tightly closed when not in use.

SECTION 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

HYGIENIC PRACTICES	Observe label precautions; use personal protective equipment. Avoid breathing mists or vapors of this product.
ENGINEERING CONTROLS	Facilities using this product must be equipped with an eyewash station. Local Exhaust: None

Redux Technology
Material Safety Data Sheet

Product Name: Redux 380
MSDS #: 22

Effective date: 2/10/2004
Page 4 of 6

PERSONAL PROTECTIVE EQUIPMENT

X	RESPIRATOR	NIOSH/MSHA approved respirator where mists or sprays may be generated.
X	GOGGLES / FACE SHIELD	Chemical splash goggles required; also use face shield if exposure is severe
X	APRON	Required; PVC, Neoprene or Vinyl acceptable
X	GLOVES	Required; use PVC, Neoprene or Nitrile with long gauntlet or protective cuff
X	BOOTS	Rubber

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear pale yellow liquid	BOILING POINT	> 212° F
ODOR	Slight Odor	FREEZING POINT	< 32° F
pH	Approx. 2.5	VAPOR PRESSURE	Similar to water
SPECIFIC GRAVITY	1.1	VAPOR DENSITY	Similar to water
SOLUBILITY IN WATER	Complete	EVAPORATION RATE	Similar to water

SECTION 10 -- STABILITY AND REACTIVITY

CHEMICAL STABILITY		STABLE	X		UNSTABLE	
CONDITIONS TO AVOID	Do not mix with anything but water.					
INCOMPATIBILITY	Do not mix with quaternary amines, acids, sulfides and strong oxidizers.					
HAZARDOUS PRODUCTS OF DECOMPOSITION	Carbon dioxide and carbon monoxide.					
POLYMERIZATION		WILL NOT OCCUR	X		MAY OCCUR	
CONDITIONS TO AVOID	Not applicable					

Redux Technology
Material Safety Data Sheet

Product Name: Redux 380
 MSDS #: 22

Effective date: 2/10/2004
 Page 5 of 6

SECTION 11 -- TOXICOLOGICAL INFORMATION

Oral: Rat LD50 = >6,500 mg/kg
 Eye Irritation: Corrosive
 Skin irritation: Mild Irritant

CARCINOGENICITY

	THIS PRODUCT CONTAINS A KNOWN OR SUSPECTED CARCINOGEN
X	THIS PRODUCT DOES NOT CONTAIN ANY KNOWN OR ANTICIPATED CARCINOGENS ACCORDING TO THE CRITERIA OF THE NTP ANNUAL REPORT ON CARCINOGENS AND OSHA 29 CFR 1910, Z

OTHER EFFECTS

ACUTE	May be corrosive to all body tissues which it comes in contact.
CHRONIC	The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis. Similarly, inhalation of dust, spray, or mist may result in varying degrees of irritation or damage to the respiratory tract tissues and an increased susceptibility to respiratory illness.

SECTION 12 -- ECOLOGICAL INFORMATION

BIODEGRADABILITY		CONSIDERED BIODEGRADABLE	X		NOT BIODEGRADABLE	
BOD / COD VALUE	Not established					
ECOTOXICITY	Ceriodaphnia: 48 hr LD50 = 2900 mg/l NOAEL = 2000 mg/l Fathead Minnow: 96 hr LD50 = 5700 mg/l NOAEL = 2000 mg/l					

Redux Technology
Material Safety Data Sheet

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SECTION 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD	Product that cannot be used according to the label must be disposed of as a hazardous waste at an approved hazardous waste management facility. Empty containers may be triple rinsed, then offered for recycling or reconditioning; or puncture and dispose of in a sanitary landfill.				
RCRA CLASSIFICATION	Hazardous, corrosive D002				
RECYCLE CONTAINER	<input type="checkbox"/>	YES	<input checked="" type="checkbox"/> X	CODE	2 - HDPE
					NO <input type="checkbox"/>

SECTION 14 -- TRANSPORT INFORMATION

DOT CLASSIFICATION	<input type="checkbox"/>	HAZARDOUS	<input checked="" type="checkbox"/> X	<input type="checkbox"/>	NOT HAZARDOUS	<input type="checkbox"/>
DESCRIPTION	Corrosive					

SECTION 15 -- REGULATORY INFORMATION

REGULATORY STATUS

EPA REGISTERED (UNDER FIFRA)	
FDA REGULATED	
KOSHER	
SARA TITLE III MATERIAL	
USDA AUTHORIZED	
NSF APPROVAL	

SECTION 16 -- OTHER INFORMATION

NFPA CLASSIFICATION

2	BLUE	HEALTH HAZARD
0	RED	FLAMMABILITY
1	YELLOW	REACTIVITY
C	WHITE	SPECIAL HAZARD