12 Metro Park Road, Albany, New York 12205

October 8, 2001

Mr. Carl Hoffman, P.E.
New York Department of Environmental Conservation
Operation and Maintenance Section – Bureau of Hazardous Site Control
Division of Environmental Remediation
625 Broadway
11th Floor
Albany, New York 12233 - 7016

Re: **ServAll Laundry Site**
Bay Shore, Suffolk County
Site No. 1-52-077, Work Assignment No. D003821-19
Monthly Report July 2001

Telephone
518.458.1313
Facsimile
518.458.2472

Dear Mr. Hoffmann:

This is the Monthly Report for July 2001, the sixth monthly report submitted under Work Assignment No. D003821-19

The plant processed a total volume of 3,476,630 gallons of water at an average flow rate of 117.3 GPM for the month of July. In this sampling event the total influent volatile organic compounds (VOCs) concentration was 6.75 ppb (see discussion below regarding blank correction). Most compounds detected in the influent sample fell into the chlorinated solvent category, as would be expected with groundwater impacts arising from a dry cleaning operation. The plant removed approximately 32 percent of the influent VOCs. No iron was detected in the system effluent sample during this sampling event. The effluent manganese concentration was 695 ppb, which is above the discharge criteria of 600 ppb. This result is consistent with historical sampling results for manganese.

Review of the laboratory report for this sampling round found methyl-tert-butyl ether (MTBE), methylene chloride, chloroform, 1,1,1-trichloroethane, trichloroethene, and tetrachloroethene to be present at concentrations of 2.9, 0.41, 0.14, 0.41, 0.8, and 2.5 ug/L, respectively, for the influent sample. In the effluent sample MTBE, bromodichloromethane, methylene chloride, chloroform, trichloroethene, and tetrachloroethene were found to be present at concentrations of 1.8, 0.62, 0.68, 1.8, 0.12, and 0.27 ug/L, respectively.

Based on telephone conversations Earth Tech had with Severn Trent Laboratories, in February 2001, Methylene chloride, MTBE, and acetone are all common laboratory contaminants for this laboratory. USEPA data validation procedures state, that when contamination is seen in a laboratory method blank, trip blank, or field blank a factor of ten times the blank concentration for a common laboratory contaminant is used to "correct" sample results. For other blank contaminants, a factor of five times the blank concentration is used to "correct" sample results.

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Mr. Carl Hoffman
NYSDEC
ServAll Laundry Site
July 2001 Report

The table below presents a summary of the blank results and there associated sample results.

Compound	Blank (VBLKLO) Concentration	Trip Blank	Effluent Concentration	Influent Concentration	UV-OX
methyl-tert-butyl-ether	ND	ND	1.8	2.9	1.8
methylene chloride	2.0	1.4	0.68	0.41	0.86
Acetone	ND	ND	ND	ND	ND
chloroform	ND	ND	1.8	0.14	0.46
bromodichloromethane	ND	ND	0.62	ND	ND
toluene	0.23	ND	ND	ND	ND

When evaluating the performance of the water treatment system the sample results for methylene chloride shown in the table above were "blank corrected" and negated. This correction was made, since the concentration of methylene chloride found in the samples was lower than ten times the associated laboratory blank result for this compound.

Chloroform is not a common laboratory contaminant, and it was not found to be present in any of the blanks analyzed with the samples. To be conservative the chloroform concentration present in the influent and effluent samples was included in the total volatile organics calculation, and when calculating the overall contaminant reduction efficiency.

As shown in the table above, MTBE was present in both the influent and effluent samples, but not in any of the associated blanks. Earth Tech reported in the February 2001 monthly summary report that the presence of MTBE, in the samples associated with that report, was the result of laboratory contamination. The blank data for this sampling event does not support that same conclusion. To be conservative the MTBE concentration present in the influent was included in the total volatile organics calculation, and when calculating the overall contaminant reduction efficiency. Earth Tech will continue to follow this issue in the future, and data will be evaluated as described above for blank correction with regards to MTBE when appropriate.

The typical effluent pH range at the plant is between 6 and 9 SU. The pH seen in the influent is within that range with a value of 6.20. The effluent is also within the range (pH = 7.13). The overall effluent water quality data (TSS, Total Solids, Alkalinity, and pH) were consistent with historical laboratory and daily on-site monitoring data.

The following non-routine, system maintenance activities were conducted by H2M during the reporting period:

- The system was down upon arrival on 7/2/02 due to electrical discontinuity in lamp #3. The

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problem was fixed.

- On 7/24/02 four (4) drums of 15% sodium hypochlorite were ordered. The drums were received on 7/30/01

- Also on 7/30/01 separation tank 12A was high. The diaphragm pump was cleaned and emptied which solved the problem.

A complete list of all maintenance activities for this month are in the attached operations and maintenance letter summary submitted by the H2M Group dated July 5, 2001.

If you have any questions or comments regarding this report please feel free to contact me at (518) 437-8310.

Telephone
518.458.1313
Facsimile
518.458.2472

Very truly yours,

C. Brett Mongillo

C. Brett Mongillo
Manager Chemistry and Sampling Services
Earth Tech, Inc.

Enclosures

Servall Laundry
Site No. 1-52-077
Groundwater Remediation -2001 Operation and Maintenance

Summary Report

Plant Operating Data	unit	Monthly Average (to date)	Monthly Average (2001)	February-01	March-01	April-01	May-01	June-01
Flow Rate	gpm	117	123	146.1	144.11	129.22	101.99	100.64
Gallons processed	gallons	3342097	2882197	1,706,490	5,546,940	4,526,670	326,040	1,710,410
Percent of Time Operating	%	1	2	790%	92%	68%	5%	26%
Pounds of VOCs Treated	lb	1	0	0.09	0.41	0.37	NA	0.15
Influent VOC concentration	ug/L	106	13	8.1	14.79	22.43	NA	10.53
Effluent VOC concentration	ug/L	8	5	2.1	6.01	12.54	NA	0
Influent Total Iron	ug/L	1768	128	0	210	240	NA	0
Effluent Total Iron	ug/L	336	0	0	0	0	NA	0
Influent Total Manganese	ug/L	747	817	756	874	815	NA	862
Effluent Total Manganese	ug/L	583	802	766	870	813	NA	866
VOC removal efficiency	%	83.0%	51.54%	74.1%	59.4%	44.1%	0.0%	100.0%
Total Iron removal efficiency	%	#DIV/0!	#DIV/0!	0.0%	100.0%	100.0%	0.0%	#DIV/0!
Total Manganese removal efficiency	%	10.5%	1.64%	-1.3%	0.5%	0.2%	0.0%	-0.5%
Cartridge Filters	ea	1	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Sodium hypochlorite (12%)	lb	634	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Polymer	lb	25	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Hydrogen peroxide (50%)	lb	3705	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Caustic (50%)	lb	2074	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Hydrochloric Acid	lb	65	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Spare Parts or other	at cost	443	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Sludge generated (20% dewatered)	gal	19	0	0	0	0	0	0
Sludge disposed of	gal	14	0	0	0	0	0	0
Electricity (estimated)	kw hr	39891	37800	*NA*	*NA*	*NA*	*NA*	*NA*
Gas (estimated)	therms	854	800	*NA*	*NA*	*NA*	*NA*	*NA*
Compliance Sampling	at cost	893	650	*NA*	*NA*	*NA*	*NA*	*NA*
Operator	Month	8927	6700	*NA*	*NA*	*NA*	*NA*	*NA*
Redevelopment	at cost	2048	0	*NA*	*NA*	*NA*	*NA*	*NA*
Management & Engineering	at cost	2874	3200	*NA*	*NA*	*NA*	*NA*	*NA*
Consumables cost	*$*	$3,160	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Sludge disposal cost	*$*	$50	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Utilities cost	*$*	$3,889	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Services cost	*$*	*$14,742*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Operating Cost (Estimated)	***$***	***$21,841***	***$0***	*NA*	*NA*	*NA*	*NA*	*NA*

Notes:
NA = Not Available

Servall Laundry
Site No. 1-52-077
Groundwater Remediation -2001 Operation and Maintenance

Summary Report

Plant Operating Data	unit	July-01	August-01	September-01	October-01	November-01	December-01	Total Year 2001
Flow Rate	gpm	117.3						-
Gallons processed	gallons	3,476,630						17,293,180
Percent of Time Operating	%	54%						172%
Pounds of VOCs Treated	lb	0.06						1.08
Influent VOC concentration	ug/L	6.75						62.60
Effluent VOC concentration	ug/L	4.61						25.26
Influent Total Iron	ug/L	189						639
Effluent Total Iron	ug/L	0						0
Influent Total Manganese	ug/L	780						4,087
Effluent Total Manganese	ug/L	695						4,010
VOC removal efficiency	%	31.7%						51.5%
Total Iron removal efficiency	%	100.0%						#DIV/0!
Total Manganese removal efficiency	%	10.9%						1.6%
Cartridge Filters	ea	*NA*						0
Sodium hypochlorite (12%)	lb	*NA*						0
Polymer	lb	*NA*						0
Hydrogen peroxide (50%)	lb	*NA*						0
Caustic (50%)	lb	*NA*						0
Hydrochloric Acid	lb	*NA*						0
Spare Parts or other	at cost	*NA*						$0
Sludge generated (20% dewatered)	gal	0						0
Sludge disposed of	gal	0						0
Electricity (estimated)	kw hr	*NA*						0
Gas (estimated)	therms	*NA*						7,200
Compliance Sampling	at cost	*NA*						$0
Operator	Month	*NA*						$0
Redevelopment	at cost	*NA*						$0
Management & Engineering	at cost	*NA*						$0
Consumables cost	*$*	*NA*						$0
Sludge disposal cost	*$*	*NA*						$0
Utilities cost	*$*	*NA*						$0
Services cost	*$*	*NA*						$0
Operating Cost (Estimated)	***$***	*NA*						**$0**

Notes:
NA = Not Available

Servall Laundry Site
Site No. 1-52-077
Groundwater Remediation - Operation and Maintenance

2001 Compliance Sampling - UNCORRETED

Influent	2001 DATA											
Constituents	Discharge Criteria	units	February		March		April		May		June	
Chlorobenzene	5	ug/L		U		U		U	NA			U
Vinyl Chloride	2	ug/L		U		U		U	NA			U
1,1-Dichloroethene	5	ug/L		U		U		U	NA			U
Trichloroethene	5	ug/L	0.8		0.76		0.75		NA		0.83	
Tetrachloroethene	5	ug/L	5.1		11		15		NA		5.7	
1,1-Dichloroethane	5	ug/L		U		U		U	NA			U
Toluene	5	ug/L		U		U		U	NA			U
cis-1,2-Dichloroethene	5	ug/L		U		U	0.4	J	NA			U
trans-1,2-Dichloroethene	5	ug/L		U		U		U	NA			U
Methylene Chloride	N/A	ug/L	0.22	JB	0.43	JB	0.71	JB	NA		0.26	JB
1,1,1-Trichloroethane	N/A	ug/L	0.38	J		U	0.26	J	NA			U
Chloroform	N/A	ug/L		U		U		U	NA		0.16	J
Bromodichloromethane	N/A	ug/L		U		U		U	NA			U
Trichlorofluoromethane	N/A	ug/L		U		U		U	NA			U
Tetrahydrofuran	N/A	ug/L		U		U		U	NA			U
Methyl tert-Butly Ether	N/A	ug/L	1.6	JB	2.6	J	5	J	NA		4	J
Naphthalene	N/A	ug/L					0.31	J	NA			U
Total VOCs	**N/A**	**ug/L**	**8.10**		**14.79**		**22.43**		**0.00**		**10.95**	
pH			**6.2**		**5.8**		**5.85**		**NA**		**6.54**	
Iron (total)	600[4]	ug/L		U	210		240		NA			U
Manganese (total)	600[4]	ug/L	**756**		**874**		**815**		NA		862	
Alkalinity	N/A	mg/L	20		23.5		24		NA		21	
Total Suspended Solids	N/A	mg/L		U		U		U	NA			U
Total Solids	N/A	mg/L	114		117		3360		NA		141	

Effluent	2001 DATA											
Constituents	Discharge Criteria	units	February		March		April		May		June	
Chlorobenzene	5	ug/L		U		U		U	NA			U
Vinyl Chloride	2	ug/L		U		U		U	NA			U
1,1-Dichloroethene	5	ug/L		U		U		U	NA			U
Trichloroethene	5	ug/L		U		U		U	NA			U
Tetrachloroethene	5	ug/L	0.9		0.29	J	0.2	J	NA			U
1,1-Dichloroethane	5	ug/L		U		U		U	NA			U
Styrene	5 (POC)	ug/L		U		U		U	NA			U
Toluene	5	ug/L		U		U		U	NA			U
cis-1,2-Dichloroethene	5	ug/L		U		U		U	NA			U
trans-1,2-Dichloroethene	5	ug/L		U		U		U	NA			U
Methylene Chloride	N/A	ug/L	0.36	JB	0.42	JB	0.75	JB	NA		0.35	JB
1,1,1-Trichloroethane	N/A	ug/L		U		U		U	NA			U
Chloroform	N/A	ug/L	0.16	J	0.3	J	1.7		NA		0.67	U
Tetrahydrofuran	50	ug/L		U		U		U	NA			U
Acetone	N/A	ug/L		U	5		9.4	B	NA		3.6	B
2-Butanone	N/A	ug/L		U		U		U	NA			U
Bromodichloromethane	N/A	ug/L		U		U	0.3	J	NA			U
Methyl tert-Butly Ether	N/A	ug/L	0.68	JB		U	0.3	J	NA			U
Total VOCs	**N/A**	**ug/L**	**2.10**		**6.01**		**12.54**		**0.00**		**4.62**	
pH			**6.58**		**6.45**		**6.97**		**NA**		**7.56**	
Iron (total)	600[4]	ug/L		U		U		U	NA			U
Manganese (total)	600[4]	ug/L	**766**		**870**		**813**		**NA**		**866**	
Alkalinity	N/A	mg/L	22		36		67		NA		70	
Total Suspended Solids	N/A	mg/L		U		U		U	NA			U
Total Solids	N/A	mg/L	92		134		159		NA		189	

Notes:

1. Analytical data analyzed by STL Laboratories.
2. (U) Undetected.
3. (J) Estimate value. Result is below sample practical quantitation limit, but above the instrument detection limit.
4. The combined effluent concentration of Iron and Manganese will not exceed 1,000 ug/L.
5. N/A - No limit established for this site.
6. (E) Estimate value.
7. N-A - Not Analyzed
8. "-" indicates not performed.
9. Bold values exceed discharge limits.
10. (P) pestisnde/aroclor target analyte. Greater than 25% difference between the two GC columns.
11. Concentration between EPA contract detection limit and instrument detection limit
12. POC = principal organic contanunant
13. LE - lab error or contamination likely

Servall Laundry Site
Site No. 1-52-077
Groundwater Remediation - Operation and Maintenance

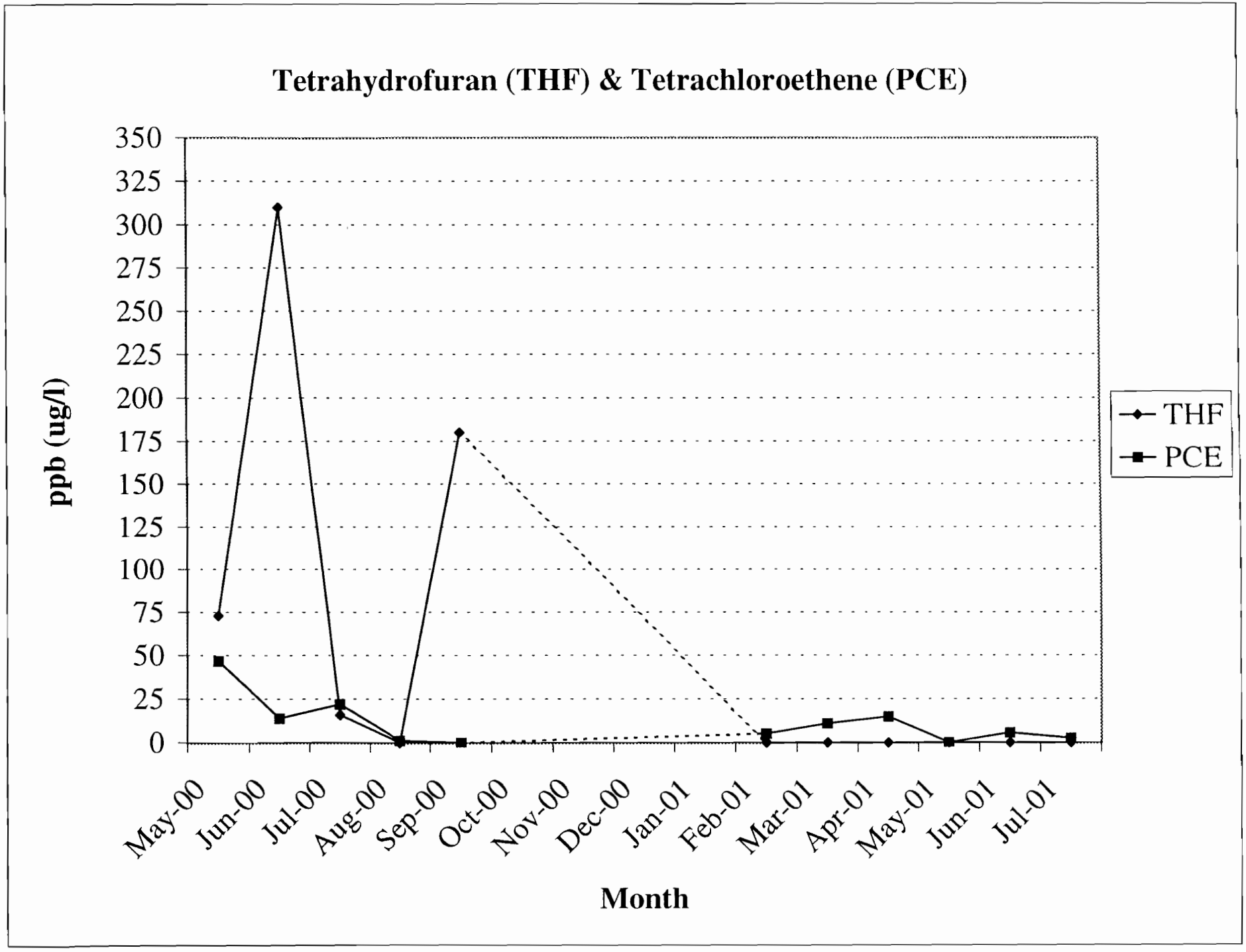
2001 Compliance Sampling - UNCORRETED

Influent			2001 DATA											
Constituents	Discharge Criteria	units	July		August		September		October		November		December	
Chlorobenzene	5	ug/L		U										
Vinyl Chloride	2	ug/L		U										
1,1-Dichloroethene	5	ug/L		U										
Trichloroethene	5	ug/L	0.8											
Tetrachloroethene	5	ug/L	2.5											
1,1-Dichloroethane	5	ug/L		U										
Toluene	5	ug/L		U										
cis-1,2-Dichloroethene	5	ug/L		U										
trans-1,2-Dichloroethene	5	ug/L		U										
Methylene Chloride	N/A	ug/L	0.41	JB										
1,1,1-Trichloroethane	N/A	ug/L	0.41	J										
Chloroform	N/A	ug/L	0.14	J										
Bromodichloromethane	N/A	ug/L		U										
Trichlorofluoromethane	N/A	ug/L		U										
Tetrahydrofuran	N/A	ug/L		U										
Methyl tert-Butly Ether	N/A	ug/L	2.9	J										
Naphthalene	N/A	ug/L		U										
Total VOCs	**N/A**	**ug/L**	**7.16**		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**	
pH			6.2											
Iron (total)	600[4]	ug/L	189											
Manganese (total)	600[4]	ug/L	780											
Alkalinity	N/A	mg/L	23											
Total Suspended Solids	N/A	mg/L		U										
Total Solids	N/A	mg/L	134											

Effluent			2001 DATA											
Constituents	Discharge Criteria	units	July		August		September		October		November		December	
Chlorobenzene	5	ug/L		U										
Vinyl Chloride	2	ug/L		U										
1,1-Dichloroethene	5	ug/L		U										
Trichloroethene	5	ug/L	0.12	J										
Tetrachloroethene	5	ug/L	0.27	J										
1,1-Dichloroethane	5	ug/L		U										
Styrene	5 (POC)	ug/L		U										
Toluene	5	ug/L		U										
cis-1,2-Dichloroethene	5	ug/L		U										
trans-1,2-Dichloroethene	5	ug/L		U										
Methylene Chloride	N/A	ug/L	0.68	JB										
1,1,1-Trichloroethane	N/A	ug/L		U										
Chloroform	N/A	ug/L	1.8											
Tetrahydrofuran	50	ug/L		U										
Acetone	N/A	ug/L		U										
2-Butanone	N/A	ug/L		U										
Bromodichloromethane	N/A	ug/L	0.62											
Methyl tert-Butly Ether	N/A	ug/L	1.8	J										
Total VOCs	**N/A**	**ug/L**	**5.29**		**0.00**		**0.00**		**0.00**		**0.00**		**0.00**	
pH			7.13											
Iron (total)	600[4]	ug/L		U										
Manganese (total)	600[4]	ug/L	695											
Alkalinity	N/A	mg/L	62											
Total Suspended Solids	N/A	mg/L		U										
Total Solids	N/A	mg/L	184											

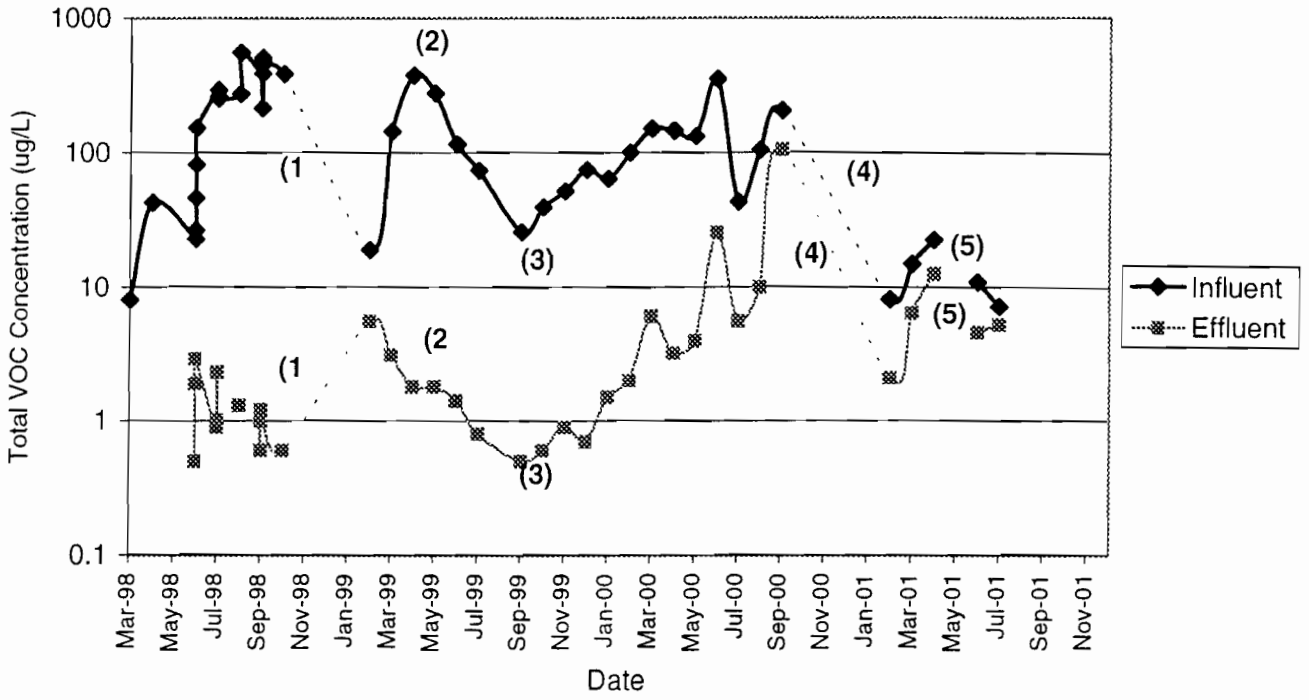
Notes:

1. Analytical data analyzed by STL Laboratories.
2. (U) Undetected.
3. (J) Estimate value. Result is below sample practical quan
instrument detection limit.
4. The combined effluent concentration of Iron and Mangan
5. N/A - No limit established for this site.
6. (E) Estimate value.
7. N-A - Not Analyzed
8. "-" indicates not performed.
9. Bold values exceed discharge limits.
10. (P) pestiside/aroclor target analyte. Greater than 25% di
11. Concentration between EPA contract detection limit and
12. POC = principal organic contaminant
13. LE - lab error or contamination likely

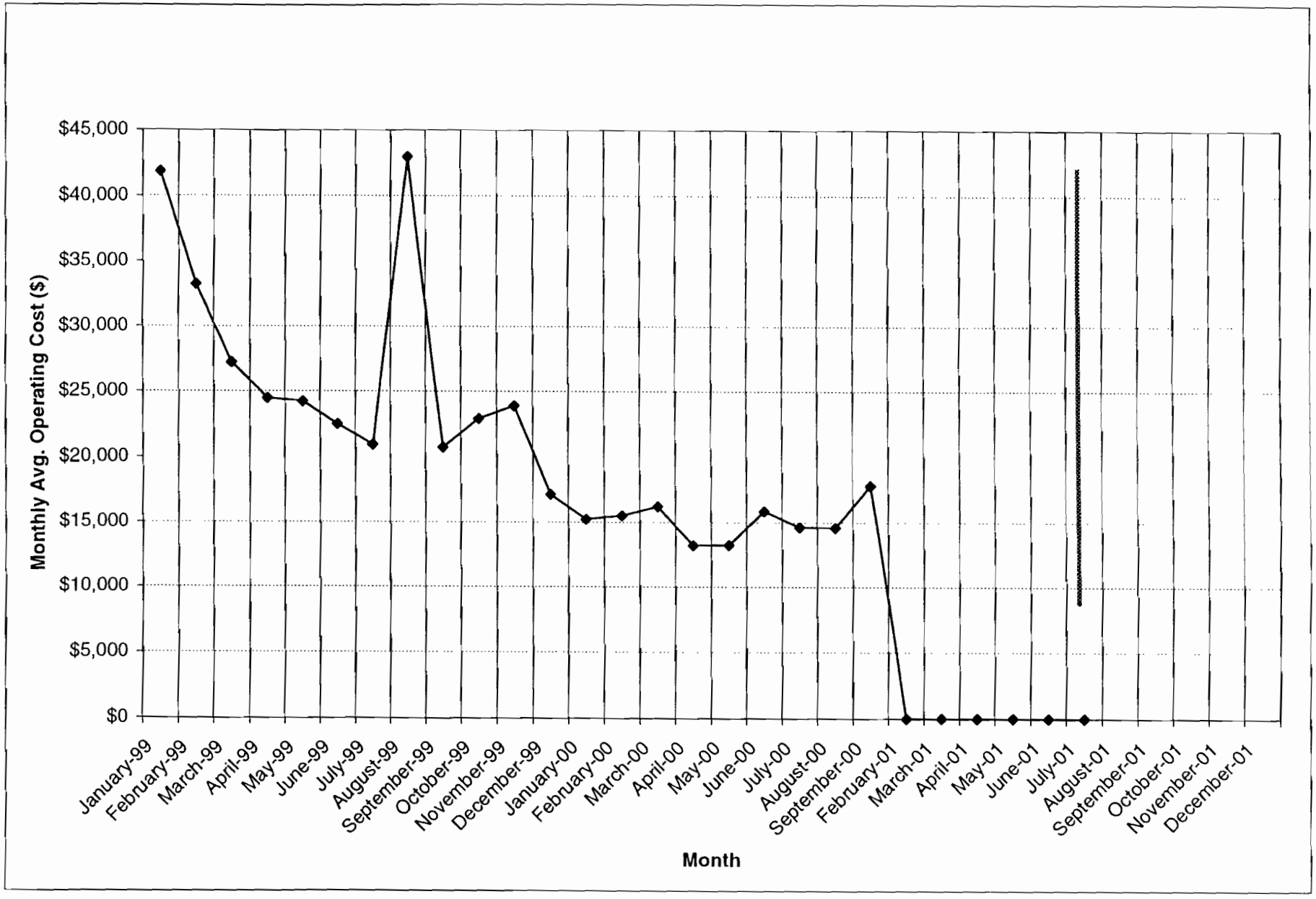

Tetrahydrofuran (THF) & Tetrachloroethene (PCE)
ppb (ug/l)
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
May-00
Jun-00
Jul-00
Aug-00
Sep-00
Oct-00
Nov-00
Dec-00
Jan-01
Feb-01
Mar-01
Apr-01
May-01
Jun-01
Jul-01
Month
THF
PCE

Servall Laundry Site
Site No. 1-52-077
Groundwater Remediation - Operation and Maintenance

Total Volatile Organic Compound (VOC) Influent and Effluent Trends



NOTES
1. Plant down due to reinjection well fouling (November 19, 1998 to January 23, 1999)
2. Brief Shut down in May: May 8 - May 10,1999
3. Low influent flow due to reinjection well fouling.
4. Plant Shut down due to change in project management
5. Plant shutdown for maintenance


Monthly Avg. Operating Cost ($)
$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
January-99
February-99
March-99
April-99
May-99
June-99
July-99
August-99
September-99
October-99
November-99
December-99
January-00
February-00
March-00
April-00
May-00
June-00
July-00
August-00
September-00
February-01
March-01
April-01
May-01
June-01
July-01
August-01
September-01
October-01
November-01
December-01
Month

Servall Laundry Site
Site No. 1-52-077
Groundwater Remediation

Summary Notes and Action Items

Month	Notes	Action	Resolutions
February	NYSDEC project manager requested repair of broken windows at the site.	Earth Tech requested that the O&M subcontractor (H2M) arrange for repairs	H2M had windows repaired.
	H2M Reported failure of three pH probes and one transmitter unit. They provided cost of replacement from original supplier	Earth Tech confirmed cost of replacement and received authorization to purchase replacements from NYSDEC	pH Probes and transmitter was replaced
	H2M has suggested that the UV lamp system may be ready for replacement lamps.	Earth Tech and H2M will track total VOC removal efficiency to verify the need to replace the UV lamps	
March	Nothing to Report		
April	See Discussion in Report		
May	See Discussion in Report		
June	Nothing to Report		
July	Nothing to Report		

Servall Laundry Site
Site No. 1-52-077
Summary of Off-Site Analytical Results

		Date	Mar-98	Apr-98	Jun-98	Jun-98	Jun-98	Jun-98	Jun-98	Jul-98	Jul-98	Jul-98	Aug-98	Aug-98
		Time	8am	8am	9am	1pm	2:50pm	6:50am	9am	6:30am	3pm	9:30am	4:30pm	4pm
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)												
TOTAL VOCs	**14,104**	**166**	**8**	**42.5**	**22.6**	**26.4**	**45.5**	**81.4**	**151.3**	**291.7**	**261.4**	**252**	**272.2**	**552.5**
Iron (mg/L)	0.5 - 5	17	0.19	0.98	0.67	1.1	1.1	1.2	1.7	1.8	1.5		1.5	1.7
Manganese (mg/L)	0.675	98	0.73	1	0.97	1.1	1.1	1.1	1.1	1.2	1		0.96	0.82
EFFLUENT														
TOTAL VOCs		**5**	**0**	**0**	**0**	**0**	**0.5**	**1.9**	**2.9**	**0.9**	**2.3**	**1**	**0**	**1.3**
Removal Efficiencies		96.74%	100%	100%	100%	100%	99%	98%	98%	100%	99%	100%	100%	100%
Iron (mg/L)		0.29	0.1	0.45	0.08	0.06	0.05	0.04	0.06	0.14	0.14		0.17	2.4
Manganese (mg/L)		96.1	0.66	0.87	0.91	1.7	1	1.1	1	1.2	1.1		0.97	0.79

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to **22** and **2.3**, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
Site No. 1-52-077
Summary of Off-Site Analytical Results

		Date	Sep-98	Sep-98	Sep-98	Sep-98	Sep-98	Oct-98
		Time		8am			1pm	9am
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)						
TOTAL VOCs	**14,104**	**166**	**382.8**	**503.2**	**473.1**	**213**	**453.6**	**383.3**
Iron (mg/L)	0.5 - 5	17	1.4	1.2	1.4	1.2	1.1	0.9
Manganese (mg/L)	0.675	98	0.85	0.8	0.74	0.69	0.73	0.67
EFFLUENT								
TOTAL VOCs		**5**	**0**	**1.1**	**1**	**0.6**	**1.2**	**0.6**
Removal Efficiencies		96.74%	100%	100%	100%	100%	100%	100%
Iron (mg/L)		0.29	0.19	0.05	0.11	0.05	0.15	0.06
Manganese (mg/L)		96.1	0.84	0.79	0.74	0.72	0.72	0.66

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to **22** and **2.3**, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
Site No. 1-52-077
Summary of Off-Site Analytical Results

		Date	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Sep-99	Oct-99	Nov-99
		Time									
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)									
TOTAL VOCs	**14,104**	**166**	**18.8**	**143.6**	**373.7**	**275.3**	**114.8**	**73.5**	**25.5**	**39.1**	**51.6**
Iron (mg/L)	0.5 - 5	17	0.574	0.42	0.564	0.385	0.236	0.321	0.172	0.979	0.716
Manganese (mg/L)	0.675	98	0.629	0.565	0.496	0.517	0.492	0.719	0.63	0.622	0.521
EFFLUENT											
TOTAL VOCs		**5**	**5.57**	**3.1**	**1.8**	**1.8**	**1.4**	**0.8**	**0.5**	**0.6**	**0.9**
Removal Efficiencies		96.74%	70%	98%	100%	99%	99%	99%	98%	98%	98%
Iron (mg/L)		0.29	0.134	0.0604	0.05	0.05	0.199	0.1	0.13	0.035	0.035
Manganese (mg/L)		96.1	0.612	0.569	0.49	0.542	0.507	0.71	0.66	0.613	0.519

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to **22** and **2.3**, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
Site No. 1-52-077
Summary of Off-Site Analytical Results

		Date	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00	Jul-00	Aug-00
		Time									
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)									
TOTAL VOCs	**14,104**	**166**	**73.9**	**63.9**	**100.3**	**150.6**	**145.45**	**131.82**	**350.93**	**42.89**	**104.46**
Iron (mg/L)	0.5 - 5	17	0.248	1.27	0.308	0.689	0.426	1.43	6.32	0.444	0.583
Manganese (mg/L)	0.675	98	0.548	0.593	0.542	0.517	0.499	0.864	2.9	0.992	0.514
EFFLUENT											
TOTAL VOCs		**5**	**0.7**	**1.5**	**2**	**6.1**	**3.22**	**3.97**	**25.16**	**5.57**	**10.05**
Removal Efficiencies		96.74%	99%	98%	98%	96%	98%	97%	93%	87%	90%
Iron (mg/L)		0.29	0.035	0.1	0.032	0.032	0.0755	3.01	1.78	0.732	1.4
Manganese (mg/L)		96.1	0.524	0.583	0.533	0.492	0.506	0.417	0.0166	0.841	0.399

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to **22** and **2.3**, respectively, as determined by the trends in VOC concentrations sampled.

Servall Laundry Site
Site No. 1-52-077
Summary of Off-Site Analytical Results

		Date	Sep-00	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
		Time									
INFLUENT	Design Concentration (ug/l)	Average of Samplig Results (ug/l)									
TOTAL VOCs	**14,104**	**166**	**204.19**	**8.1**	**14.79**	**22.43**	**NA**	**10.95**	**7.16**		
Iron (mg/L)	0.5 - 5	17	25.7	0	210	240	0	0	189		
Manganese (mg/L)	0.675	98	0.682	756	874	815	0	862	780		
EFFLUENT											
TOTAL VOCs		**5**	**105.99**	**2.1**	**6.45**	**12.54**	**NA**	**4.62**	**5.29**		
Removal Efficiencies		96.74%	48%	74%	56%	44%	0%	58%	26%		
Iron (mg/L)		0.29	0.0845	0	0	0	0	0	0		
Manganese (mg/L)		96.1	0.439	766	870	813	0	866	695		

* Numbers vary from published values in the Final Prove-out Report by Consumers Applied Technologies and Enviroclean Northeast, Inc., not dated. Published values, 2.2 and 23, were changed to **22** and **2.3**, respectively, as determined by the trends in VOC concentrations sampled.

TABLE VO-1.0
7001-1800A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	INFLUENT	UV-OX	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKLO	011800A-01	011800A-02	
Method Blank I.D.	VBLKLO	VBLKLO	VBLKLO	
Quant. Factor	1.00	1.00	1.00	
Dichlorodifluoromethane	U	U	U	0.50
Chloromethane	U	U	U	0.50
Vinyl Chloride	U	U	U	0.50
Bromomethane	U	U	U	0.50
Chloroethane	U	U	U	0.50
Freon 123A	U	U	U	0.50
Trichlorofluoromethane	U	U	U	0.50
Diethyl ether	U	U	U	25
1,1,2-Trichloro(1,2,2)trifluor	U	U	U	0.50
1,1-Dichloroethene	U	U	U	0.50
Acetone	U	U	U	2.5
Propionitrile	U	U	U	25
Methyl tert-Butyl ether	U	2.9J	1.8J	25
Carbon Disulfide	U	U	U	25
Bromodichloromethane	U	U	U	0.50
Iodomethane	U	U	U	0.50
Allyl Chloride	U	U	U	25
Acrylonitrile	U	U	U	25
Methylene Chloride	2	.41JB	.86JB	1.0
trans-1,2-Dichloroethene	U	U	U	0.50
1,1-Dichloroethane	U	U	U	0.50
2,2-Dichloropropane	U	U	U	0.50
2-Butanone	U	U	U	2.5
cis-1,2-Dichloroethene	U	U	U	0.50
Bromochloromethane	U	U	U	0.50
Chloroform	U	.14J	.46J	0.50
1,1,1-Trichloroethane	U	.41J	.32J	0.50
Carbon Tetrachloride	U	U	U	0.50
1,1-Dichloropropene	U	U	U	0.50
Methacrylonitrile	U	U	U	25
Benzene	U	U	U	0.50
1,2-Dichloroethane	U	U	U	0.50
Ethyl Methacrylate	U	U	U	25
1,4-Dioxane	U	U	U	50
Chloroacetonitrile	U	U	U	25
Date Received		07/17/01	07/17/01	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	07/24/01	07/24/01	07/24/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.0
7001-1800A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	INFLUENT	UV-OX	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKLO	011800A-01	011800A-02	
Method Blank I.D.	VBLKLO	VBLKLO	VBLKLO	
Quant. Factor	1.00	1.00	1.00	
1-Chlorobutane	U	U	U	25
1,1-Dichloro-2-propanone	U	U	U	2.5
Trichloroethene	U	.8	.11J	0.50
Tetrahydrofuran	U	U	U	25
1,2-Dichloropropane	U	U	U	0.50
Methyl Acrylate	U	U	U	25
Dibromomethane	U	U	U	0.50
cis-1,3-Dichloropropene	U	U	U	0.50
4-Methyl-2-pentanone	U	U	U	2.5
Methyl Methacrylate	U	U	U	25
Toluene	.23J	U	U	0.50
trans-1,3-Dichloropropene	U	U	U	0.50
2-Chloroethylvinylether	U	U	U	0.50
1,1,2-Trichloroethane	U	U	U	0.50
Tetrachloroethene	U	2.5	.3J	0.50
2-Hexanone	U	U	U	2.5
1,3-Dichloropropane	U	U	U	0.50
Dibromochloromethane	U	U	U	0.50
1,2-Dibromoethane	U	U	U	0.50
Chlorobenzene	U	U	U	0.50
1,1,1,2-Tetrachloroethane	U	U	U	0.50
Ethylbenzene	U	U	U	0.50
mp-xylene	U	U	U	1.0
o-Xylene	U	U	U	0.50
Styrene	U	U	U	0.50
Bromoform	U	U	U	0.50
Isopropylbenzene	U	U	U	0.50
Bromobenzene	U	U	U	0.50
1,1,2,2-Tetrachloroethane	U	U	U	0.50
1,2,3-Trichloropropane	U	U	U	0.50
n-Propylbenzene	U	U	U	0.50
2-Chlorotoluene	U	U	U	0.50
4-Chlorotoluene	U	U	U	0.50
1,3,5-Trimethylbenzene	U	U	U	0.50
tert-Butylbenzene	U	U	U	0.50
Date Received		07/17/01	07/17/01	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	07/24/01	07/24/01	07/24/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.0
7001-1800A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	INFLUENT	UV-OX	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKLO	011800A-01	011800A-02	
Method Blank I.D.	VBLKLO	VBLKLO	VBLKLO	
Quant. Factor	1.00	1.00	1.00	
1,2,4-Trimethylbenzene	U	U	U	0.50
1-Chlorohexane	U	U	U	0.50
sec-Butylbenzene	U	U	U	0.50
1,3-Dichlorobenzene	U	U	U	0.50
4-Isopropyltoluene	U	U	U	0.50
1,4-Dichlorobenzene	U	U	U	0.50
1,2-Dichlorobenzene	U	U	U	0.50
n-Butylbenzene	U	U	U	0.50
1,2-Dibromo-3-Chloropropane	U	U	U	0.50
Benzyl Chloride	U	U	U	0.50
trans-1,4-Dichloro-2-butene	U	U	U	25
Hexachloroethane	U	U	U	25
Nitrobenzene	U	U	U	25
Pentachloroethane	U	U	U	0.50
2-Nitropropane	U	U	U	25
1,2,4-Trichlorobenzene	U	U	U	0.50
Hexachlorobutadiene	U	U	U	0.50
Naphthalene	U	U	U	0.50
1,2,3-Trichlorobenzene	U	U	U	0.50
Date Received		07/17/01	07/17/01	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	07/24/01	07/24/01	07/24/01	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.1
7001-1800A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	EFFLUENT	TB071601		Quant. Limits with no Dilution
Lab Sample I.D.	011800A-03	011800A-04		
Method Blank I.D.	VBLKLO	VBLKLO		
Quant. Factor	1.00	1.00		
Dichlorodifluoromethane	U	U		0.50
Chloromethane	U	U		0.50
Vinyl Chloride	U	U		0.50
Bromomethane	U	U		0.50
Chloroethane	U	U		0.50
Freon 123A	U	U		0.50
Trichlorofluoromethane	U	U		0.50
Diethyl ether	U	U		25
1,1,2-Trichloro(1,2,2)trifluor	U	U		0.50
1,1-Dichloroethene	U	U		0.50
Acetone	U	U		2.5
Propionitrile	U	U		25
Methyl tert-Butyl ether	1.8J	U		25
Carbon Disulfide	U	U		25
Bromodichloromethane	.62	U		0.50
Iodomethane	U	U		0.50
Allyl Chloride	U	U		25
Acrylonitrile	U	U		25
Methylene Chloride	.68JB	1.4B		1.0
trans-1,2-Dichloroethene	U	U		0.50
1,1-Dichloroethane	U	U		0.50
2,2-Dichloropropane	U	U		0.50
2-Butanone	U	U		2.5
cis-1,2-Dichloroethene	U	U		0.50
Bromochloromethane	U	U		0.50
Chloroform	1.8	U		0.50
1,1,1-Trichloroethane	U	U		0.50
Carbon Tetrachloride	U	U		0.50
1,1-Dichloropropene	U	U		0.50
Methacrylonitrile	U	U		25
Benzene	U	U		0.50
1,2-Dichloroethane	U	U		0.50
Ethyl Methacrylate	U	U		25
1,4-Dioxane	U	U		50
Chloroacetonitrile	U	U		25
Date Received	07/17/01	07/17/01		
Date Extracted	N/A	N/A		
Date Analyzed	07/24/01	07/24/01		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.1
7001-1800A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	EFFLUENT	TB071601		
Lab Sample I.D.	011800A-03	011800A-04		Quant. Limits with no Dilution
Method Blank I.D.	VBLKLO	VBLKLO		
Quant. Factor	1.00	1.00		
1-Chlorobutane	U	U		25
1,1-Dichloro-2-propanone	U	U		2.5
Trichloroethene	.12J	U		0.50
Tetrahydrofuran	U	U		25
1,2-Dichloropropane	U	U		0.50
Methyl Acrylate	U	U		25
Dibromomethane	U	U		0.50
cis-1,3-Dichloropropene	U	U		0.50
4-Methyl-2-pentanone	U	U		2.5
Methyl Methacrylate	U	U		25
Toluene	U	U		0.50
trans-1,3-Dichloropropene	U	U		0.50
2-Chloroethylvinylether	U	U		0.50
1,1,2-Trichloroethane	U	U		0.50
Tetrachloroethene	.27J	U		0.50
2-Hexanone	U	U		2.5
1,3-Dichloropropane	U	U		0.50
Dibromochloromethane	U	U		0.50
1,2-Dibromoethane	U	U		0.50
Chlorobenzene	U	U		0.50
1,1,1,2-Tetrachloroethane	U	U		0.50
Ethylbenzene	U	U		0.50
mp-xylene	U	U		1.0
o-Xylene	U	U		0.50
Styrene	U	U		0.50
Bromoform	U	U		0.50
Isopropylbenzene	U	U		0.50
Bromobenzene	U	U		0.50
1,1,2,2-Tetrachloroethane	U	U		0.50
1,2,3-Trichloropropane	U	U		0.50
n-Propylbenzene	U	U		0.50
2-Chlorotoluene	U	U		0.50
4-Chlorotoluene	U	U		0.50
1,3,5-Trimethylbenzene	U	U		0.50
tert-Butylbenzene	U	U		0.50
Date Received	07/17/01	07/17/01		
Date Extracted	N/A	N/A		
Date Analyzed	07/24/01	07/24/01		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.1
7001-1800A
EARTH TECHNOLOGY
524.2 VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	EFFLUENT 011800A-03 VBLKLO 1.00	TB071601 011800A-04 VBLKLO 1.00		Quant. Limits with no Dilution
1,2,4-Trimethylbenzene	U	U		0.50
1-Chlorohexane	U	U		0.50
sec-Butylbenzene	U	U		0.50
1,3-Dichlorobenzene	U	U		0.50
4-Isopropyltoluene	U	U		0.50
1,4-Dichlorobenzene	U	U		0.50
1,2-Dichlorobenzene	U	U		0.50
n-Butylbenzene	U	U		0.50
1,2-Dibromo-3-Chloropropane	U	U		0.50
Benzyl Chloride	U	U		0.50
trans-1,4-Dichloro-2-butene	U	U		25
Hexachloroethane	U	U		25
Nitrobenzene	U	U		25
Pentachloroethane	U	U		0.50
2-Nitropropane	U	U		25
1,2,4-Trichlorobenzene	U	U		0.50
Hexachlorobutadiene	U	U		0.50
Naphthalene	U	U		0.50
1,2,3-Trichlorobenzene	U	U		0.50
Date Received	07/17/01	07/17/01		
Date Extracted	N/A	N/A		
Date Analyzed	07/24/01	07/24/01		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

0009 Aqueous

TABLE AS-1.0
7001-1800A
EARTH TECHNOLOGY
MISCELLANEOUS ATOMIC SPECTROSCOPY

All values are ug/L.

Client Sample I.D.	INFLUENT	UV-OX	EFFLUENT	
Lab Sample I.D.	011800A-01	011800A-02	011800A-03	
Iron	189.	220.	100.U	
Manganese	780.	739.	695.	

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

INFLUENT

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1800A SAS No.: _____ SDG No.: A1800

Matrix (soil/water): WATER Lab Sample ID: 011800A-01

% Solids: 0 Date Received: 07/17/01

CAS No.	Analyte	Concentration	C	Units	Q	M
471-34-1	Alkalinity	23.0		mg/L		T
12408-02-5	pH	6.20		S.U.		D
	TDS	134.		mg/L		G
	TSS	5.0	U	mg/L		G

Comments:

_____

_____

_____

_____

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

UV-OX

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1800A SAS No.: _____ SDG No.: A1800

Matrix (soil/water): WATER Lab Sample ID: 011800A-02

% Solids: 0 Date Received: 07/17/01

CAS No.	Analyte	Concentration	C	Units	Q	M
471-34-1	Alkalinity	21.0		mg/L		T
12408-02-5	pH	6.22		S.U.		D
	TDS	141.		mg/L		G
	TSS	5.0	U	mg/L		G

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

EFFLUENT

Lab Name: STL Contract:

Lab Code: STL Case No.: 1800A SAS No.: SDG No.: A1800

Matrix (soil/water): WATER Lab Sample ID: 011800A-03

% Solids: 0 Date Received: 07/17/01

CAS No.	Analyte	Concentration	C	Units	Q	M
471-34-1	Alkalinity	62.0		mg/L		T
12408-02-5	pH	7.13		S.U.		D
	TDS	184.		mg/L		G
	TSS	5.0	U	mg/L		G

Comments:

FORM I - WC

H2M GROUP

ACEC MEMBER SUPPORTING EXCELLENCE IN ENGINEERING

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August 9, 2001

Brett Mongillo
Earth Tech, Inc.
12 Metro Park Rd.
Albany, NY 12205

Re: Servall Laundry
Bay Shore, New York
July 2001 Operations Report

Dear Mr. Mongillo:

As you are aware, Holzmacher, McLendon, & Murrell, P.C. (H2M) is currently conducting the daily operation and maintenance duties for the above referenced site. A summary of activity with respect to the groundwater extraction and treatment plant for the month of July is provided below.

Overview

Routine equipment maintenance was performed and daily process equipment readings were compiled during the month.

Event Schedule

The following timeline represents specific tasks completed during the month of July.

- 7/2/01 System down due to Lamp #3 electrical discontinuity. Fixed the lamp problem, changed out sodium hypochlorite drums and changed circular charts and restarted treatment system at 14:15.
- 7/10/01 System operating normally. Changed effluent canister filter placed the soiled ones in HCl bath and took the cleaned filters out of the bath.
- 7/16/01 Took monthly compliance samples and sent them to Severn Trent Labs via Federal Express from 5th Avenue Storage.
- 7/23/01 Changed circular charts and sodium hypochlorite drum.
- 7/24/01 Ordered four more drums of 15% sodium hypochlorite.
- 7/30/01 Separation tank 12A high. Cleaned out diaphragm pump and emptied out the tank. Changed out circular charts at 8:00. Received shipment of four drums of 15% sodium hypochlorite solution.

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Plant Performance

Between July 1, 2001 and July 31, 2001, the treatment plant discharged 3,476,630 gallons of treated water. The average flow rate through the UV/Oxidation system was 117.30 gallons per minute during operating conditions. Operational data and daily chemistry records for the respective monitoring period have been included as an attachment to this report.

Waste Disposal

No waste was shipped off-site during the reporting period.

If you should have any questions or require additional information, please contact Philip Schade at (631) 756-8000, extension 1623.

Very truly yours,

HOLZMACHER, McLENDON, & MURRELL, P.C.

Philip J. Schade, P.E.
Project Manager

Rocky W. Wenskus
Environmental Scientist

RWW/
enclosures

cc: Gary J. Miller, P.E./H2M

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Daily Operations Checklist
Servall Laundry Site

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday
Date	7/2/2001	7/3/2001	7/4/2001	7/5/2001	7/6/2001	7/9/2001	7/10/2001	7/11/2001	7/12/2001	7/13/2001	7/16/2001
Time	15:30	15:30	*-*-*-*	11:55	9:50	15:30	8:45	14:30	11:00	8:00	14:30
Extraction Well Level (feet)	65.4	65.5	*-*-*-*	68.3	71.6	71.4	73.0	73.3	73.3	73.7	74.5
Influent Flow Rate (gpm)	104.13	106.24	*-*-*-*	* 196.53	*257.83	103.54	105.07	105.16	104.13	*220.35	*136.64
Influent Filter in Service (yes/no)	No	No	*-*-*-*	No	No	No	No	No	No	No	No
Inlet Pressure (psi)	10	10	*-*-*-*	20	20	10	10	10	10	10	10
Outlet Pressure (psi)	10	10	*-*-*-*	20	20	10	10	10	10	10	10
Cartridge Filter Flow Rate (gpm)	102.54	104.61	*-*-*-*	* 193.22	*256.19	101.76	103.33	103.48	102.57	*218.27	*135.36
Equalization Tank											
Level (inches)	51.99	51.59	*-*-*-*	49.32	52.01	51.95	51.99	51.97	52.03	52.02	52.06
pH	5.95	5.89	*-*-*-*	5.94	5,91	5.93	5.87	5.88	5.88	5.89	5.95
Mixer (on/off)	Off	Off	*-*-*-*	Off	Off	Off	Off	Off	Off	Off	Off
Acid Pump Settings: Speed / Stroke	Off	Off	*-*-*-*	Off	Off	Off	Off	Off	Off	Off	Off
UV/Oxidation Pump in Service (4A/4B)	4B	4B	*-*-*-*	4B	4A	4B	4B	4B	4B	4B	4B
UV/Oxidation Flow Rate (gpm)	119.54	114.58	*-*-*-*	125.61	112.20	118.39	118.19	114.38	115.86	118.27	115.92
UV/Oxidation Unit											
Lamp # 1 (on/off)	On	On	*-*-*-*	On	On	On	On	On	On	On	On
KV	252	252	*-*-*-*	252	252	252	252	252	252	252	252
Amps	7.8	7.8	*-*-*-*	7.7	7.7	7.8	7.7	7.7	7.7	7.7	7.7
Time	13249.62	11273.47	*-*-*-*	13280.01	13282.61	13289.45	13306.71	13336.58	13356.93	13378.06	13423.91
Lamp # 2 (on/off)	Off	Off	*-*-*-*	Off	Off	Off	Off	Off	Off	Off	Off
KV	N/A	N/A	*-*-*-*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Amps	N/A	N/A	*-*-*-*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time	N/A	N/A	*-*-*-*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lamp # 3 (on/off)	On	On	*-*-*-*	On	On	On	On	On	On	On	On
KV	245	245	*-*-*-*	245	245	245	245	245	245	245	245
Amps	7.5	7.5	*-*-*-*	7.4	7.4	7.6	7.3	7.3	7.3	7.3	7.4
Time	11478.53	11502.39	*-*-*-*	11508.93	11511.41	11518.36	11535.62	11565.49	11585.83	11606.97	11652.82
Peroxide Pump Settings: Speed / Stroke	45/40	45/40	*-*-*-*	45/40	55/55	55/55	60/60	60/60	60/60	60/60	60/60
Peroxide Residual Concentration (mg/l)	13	10	*-*-*-*	13	5	12	3	10	5	7	7
Totalizer Reading (gallons)	16023860	16167610	*-*-*-*	16211140	16228790	16274380	16392170	16594240	16732600	16827180	17191850

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday
Date	7/2/2001	7/3/2001	7/4/2001	7/5/2001	7/6/2001	7/9/2001	7/10/2001	7/11/2001	7/12/2001	7/13/2001	7/16/2001
pH Adjust Tank											
Level (inches)	55.11	50.35	*-*-*-*	48.97	49.89	49.96	50.03	49.98	49.94	49.96	49.98
pH	7.16	6.97	*-*-*-*	6.93	6.94	7.08	6.84	6.87	6.88	6.88	7.05
Mixer (on/off)	On	On	*-*-*-*	On	On	On	On	On	On	On	On
Caustic Pump Settings: Speed / Stroke	55/55	55/55	*-*-*-*	55/55	55/55	55/55	55/60	55/60	55/60	55/60	55/60
Polymer Feed Settings	Off	Off	*-*-*-*	Off	Off	Off	Off	Off	Off	Off	Off
Solution Pump: Speed / Stroke	N/A	N/A	*-*-*-*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dilution Water Rate	N/A	N/A	*-*-*-*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polymeer Bucket Weight (lbs.)	N/A	N/A	*-*-*-*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sand Filter Feed Pump in Service (6A/6B)	6A	6A	*-*-*-*	6A	6B	6B	6B	6B	6B	6B	6B
Sand Filters											
Filter # 1 inlet pressure (psi)	16	16	*-*-*-*	17	18	17	16	17	17	17	17
Filter # 1 outlet pressure (psi)	16	16	*-*-*-*	16	18	17	16	17	17	16	16
Filter # 2 inlet pressure (psi)	16	17	*-*-*-*	16	18	18	17	16	18	19	17
Filter # 2 outlet pressure (psi)	16	16	*-*-*-*	15	16	17	18	17	16	17	17
Filter # 3 inlet pressure (psi)	16	17	*-*-*-*	16	18	18	16	18	17	16	16
Filter # 3 outlet pressure (psi)	17	17	*-*-*-*	16	18	18	17	17	18	18	18
Filter # 4 inlet pressure (psi)	18	19	*-*-*-*	18	20	17	20	19	20	20	19
Filter # 4 outlet pressure (psi)	16	16	*-*-*-*	16	18	16	18	17	18	18	16
Effluent Flow Rate (gpm)	90.80	93.95	*-*-*-*	90.45	99.47	115.61	104.13	106.98	95.43	97.42	99.15
Effluent Filter in Service (yes/no)	Yes	Yes	*-*-*-*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inlet Pressure (psi)	12	12	*-*-*-*	12	12	12	12	12	12	12	12
Outlet Pressure (psi)	12	12	*-*-*-*	12	12	12	12	12	12	12	12
Reinjection Well Level (feet)	64.81	67.65	*-*-*-*	67.61	69.04	68.10	66.46	66.35	66.50	66.45	65.20
Chemical Storage Levels											
Caustic Level (NaOH) (inches)	33	33	*-*-*-*	33	33	33	33	33	33	33	33
Peroxide Level (H_2O_2) (inches)	51	51	*-*-*-*	51	51	51	51	51	51	51	51
Acid Level (H_2SO_4) (inches)	53	53	*-*-*-*	53	53	53	53	53	53	53	53
Air Compressor (psi)	140	145	*-*-*-*	145	150	150	140	155	150	150	140
Compressed Air Dryer (on/off)	On	On	*-*-*-*	On	On	On	On	On	On	On	On
Chlorine pump: Speed / Stroke	60/50	60/50	*-*-*-*	60/50	60/50	60/50	60/50	60/50	60/50	60/50	60/50
Chlorine Residual Concentration (mg/l)	0.9	0.7	*-*-*-*	0.9	0.7	0.9	0.5	0.7	0.7	0.7	0.6

* - Unit inoperable
--*-* – Independence Day Holiday

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Daily Operations Checklist
Servall Laundry Site

Day	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday
Date	7/17/2001	7/18/2001	7/19/2001	7/20/2001	7/23/2001	7/24/2001	7/25/2001	7/26/2001	7/27/2001	7/30/2001	7/31/2001
Time	7:45	8:00	15:00	8:50	14:00	13:15	10:25	8:15	8:00	7:45	8:00
Extraction Well Level (feet)	77.9	54.6	54.6	54.7	54.6	54.6	54.6	54.9	54.8	54.7	56.6
Influent Flow Rate (gpm)	*158.66	*173.43	*327.31	*327.31	*327.31	*327.31	*327.31	99.40	98.62	98.65	98.65
Influent Filter in Service (yes/no)	No	No	No	No	No	No	No	No	No	No	nO
Inlet Pressure (psi)	10	10	10	10	10	10	10	10	10	10	10
Outlet Pressure (psi)	10	10	10	10	10	10	10	10	10	10	10
Cartridge Filter Flow Rate (gpm)	*157.07	*170.69	*	*	*	*	*	97.81	97.03	98.11	98.11
Equalization Tank											
Level (inches)	51.96	51.99	52.02	51.97	51.94	51.98	51.94	52.06	51.97	52.01	51.99
pH	5.87	5.89	5.90	5.91	5.91	5.92	5.92	5.94	5.93	5.95	5.93
Mixer (on/off)	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Acid Pump Settings: Speed / Stroke	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
UV/Oxidation Pump in Service (4A/4B)	4A	4A	4A	4A	4A	4A	4A	4A	4A	4A	4A
UV/Oxidation Flow Rate (gpm)	117.44	118.17	118.88	118.88	118.88	118.88	118.88	117.15	116.31	113.40	113.40
UV/Oxidation Unit											
Lamp # 1 (on/off)	On	On	On	On	On	On	On	On	On	On	On
KV	252	252	252	252	252	252	252	252	252	252	252
Amps	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
Time	13441.24	13465.56	13496.29	13514.20	13591.52	13614.61	13635.80	13643.12	13666.89	13738.76	13762.92
Lamp # 2 (on/off)	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
KV	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Amps	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lamp # 3 (on/off)	On	On	On	On	On	On	On	On	On	On	On
KV	245	245	245	245	245	245	245	245	245	245	245
Amps	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Time	11670.15	11694.46	11725.19	11743.10	11820.42	11843.51	11864.70	111872.03	11895.80	11967.66	11991.81
Peroxide Pump Settings: Speed / Stroke	60/60	60/60	60/60	60/60	60/60	60/60	50/50	50/50	50/50	50/50	50/50
Peroxide Residual Concentration (mg/l)	7	5	6	7	8	20	15	10	12	12	10
Totalizer Reading (gallons)	17310440	17477850	17689450	17812510	18341240	18497860	18639750	18687250	18849010	19337820	19500490

Daily Operations Checklist
Servall Laundry Site

Day	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday
Date	7/17/2001	7/18/2001	7/19/2001	7/20/2001	7/23/2001	7/24/2001	7/25/2001	7/26/2001	7/27/2001	7/30/2001	7/31/2001
pH Adjust Tank											
Level (inches)	49.92	49.98	49.99	49.92	49.92	49.94	49.90	49.99	49.96	49.92	49.95
pH	7.11	6.84	6.84	6.83	6.78	6.90	6.93	6.93	7.03	7.04	7.08
Mixer (on/off)	On	On	On	On	On	On	On	On	On	On	On
Caustic Pump Settings: Speed / Stroke	55/60	55/60	55/60	55/60	60/60	60/60	60/60	60/60	60/60	60/60	60/60
Polymer Feed Settings	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Solution Pump: Speed / Stroke	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dilution Water Rate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Polymeer Bucket Weight (lbs.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sand Filter Feed Pump in Service (6A/6B)	6B	6B	6B	6B	6B	6B	6B	6B	6B	6B	6B
Sand Filters											
Filter # 1 inlet pressure (psi)	17	16	17	18	18	16	16	17	18	18	19
Filter # 1 outlet pressure (psi)	17	16	17	16	16	16	16	16	18	17	18
Filter # 2 inlet pressure (psi)	18	17	16	18	19	18	18	19	20	19	18
Filter # 2 outlet pressure (psi)	16	17	14	16	17	19	19	16	16	17	20
Filter # 3 inlet pressure (psi)	17	18	18	16	16	17	17	20	19	16	18
Filter # 3 outlet pressure (psi)	19	19	17	17	18	19	19	18	18	18	18
Filter # 4 inlet pressure (psi)	20	20	18	19	19	20	20	19	19	20	22
Filter # 4 outlet pressure (psi)	18	19	18	18	15	18	18	17	19	16	18
Effluent Flow Rate (gpm)	94.25	95.64	98.98	98.98	98.98	98.98	98.98	97.77	102.77	89.18	89.18
Effluent Filter in Service (yes/no)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inlet Pressure (psi)	12	12	12	12	12	12	12	12	12	12	12
Outlet Pressure (psi)	12	12	12	12	12	12	12	12	12	12	12
Reinjection Well Level (feet)	64.67	65.83	66.14	66.20	65.80	65.90	65.44	64.55	65.24	65.86	66.07
Chemical Storage Levels											
Caustic Level (NaOH) (inches)	33	33	33	33	32	32	32	32	32	32	32
Peroxide Level (H_2O_2) (inches)	51	51	51	51	50	50	50	50	50	50	50
Acid Level (H_2SO_4) (inches)	53	53	53	53	53	53	53	53	53	53	53
Air Compressor (psi)	155	140	150	155	150	155	140	150	160	140	145
Compressed Air Dryer (on/off)	On	On	On	On	On	On	On	On	On	On	On
Chlorine pump: Speed / Stroke	60/50	60/50	60/50	60/50	60/50	60/50	60/50	60/50	60/50	60/50	60/50
Chlorine Residual Concentration (mg/l)	0.7	0.5	0.7	0.7	0.9	0.7	0.8	0.5	0.9	0.7	0.9

* - Unit inoperable

H2MGROUP

Servall Laundry
Process Control Samples

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday
Date	7/2/2001	7/3/2001	7/4/2001	7/5/2001	7/6/2001	7/9/2001	7/10/2001	7/11/2001	7/12/2001	7/13/2001	7/16/2001
Time	15:45	15:45	*-*-*-*	12:10	10:00	15:45	9:00	14:45	11:15	8:15	14:45
Influent											
pH	5.20	5.17	*-*-*-*	5.21	5.22	5.25	5.15	5.19	5.15	5.18	5.26
Iron (mg/L)	0.5	0.5	*-*-*-*	0.4	0.3	0.5	0.3	0.4	0.2	0.3	0.4
UVOX											
pH	5.15	5.17	*-*-*-*	5.19	5.29	5.21	5.27	5.20	5.23	5.22	5.42
Peroxide Residual (mg/L)	13	10	*-*-*-*	13	5	12	3	10	5	7	7
Effluent											
pH	6.24	6.20	*-*-*-*	6.15	6.34	6.33	6.15	6.21	6.25	6.23	6.33
Iron (mg/L)	0.0	0.0	*-*-*-*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Chlorine (mg/L)	0.9	0.7	*-*-*-*	0.9	0.7	0.9	0.5	0.7	0.7	0.7	0.6

Day	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday
Date	7/17/2001	7/18/2001	7/19/2001	7/20/2001	7/23/2001	7/24/2001	7/25/2001	7/26/2001	7/27/2001	7/30/2001	7/31/2001
Time	8:00	8:15	15:15	9:05	14:15	13:30	10:40	8:30	8:15	8:15	8:15
Influent											
pH	5.24	5.28	5.21	5.23	5.30	5.21	5.25	5.30	5.21	5.24	5.24
Iron (mg/L)	0.4	0.3	0.5	0.4	0.5	0.6	0.5	0.7	0.6	0.5	0.7
UVOX											
pH	5.43	5.40	5.41	5.45	5.42	5.30	5.35	5.46	5.40	5.41	5.43
Peroxide Residual (mg/L)	7	5	6	7	8	20	15	10	12	12	10
Effluent											
pH	6.31	6.33	6.30	6.41	6.40	6.33	6.30	6.20	6.27	6.26	6.30
Iron (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chlorine (mg/L)	0.7	0.5	0.7	0.7	0.9	0.7	0.8	0.5	0.9	0.7	0.9