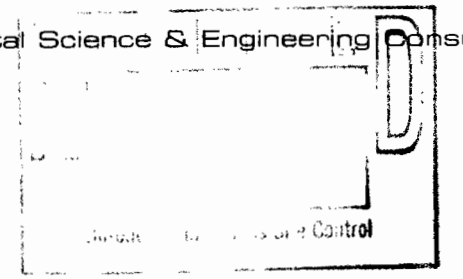
**Lawler, Matusky & Skelly Engineers LLP**

Environmental Science & Engineering Consultants



September 28, 2000
File No. 650-395

Mr. Carl Hoffman
New York State Department of Environmental Conservation
Operation and Maintenance Section - Bureau of Hazardous Site Control
Division of Environmental Remediation
50 Wolf Road
Albany, New York 12233-7010

Re: **Servall Laundry Site**
**Bay Shore, Suffolk County**
**Site No. 1-52-077, Work Assignment No. D002676-39.2**
**Monthly Report – September 2000**

Dear Mr. Hoffman:

Attached please find the Monthly Report for September 2000, the last monthly report submitted under Work Assignment No. D002676-39.2.

The plant operation data for the month of September is due from H2M at the end of the month, no later than October 13, 2000. At that time, the information will be forwarded to you. This report was based on compliance samples collected on September 8, 2000. The plant removed approximately 48% of the influent VOCs. The reduced efficiency is apparently due to the presence of Tetrahydrofuran (THF). THF was detected at influent concentrations of 180 ppb and effluent concentrations of 100 ppb. The concentrations of THF contributed 88% of total influent VOCs and 94% of total effluent VOCs. The plant removed only 44% of THF compared to 86% removal of other VOCs. Overall effluent concentrations of total VOCs were within discharge limitations however, THF exceeded its Class GA groundwater standard of 50 ppb. THF is not in the current permit for the site.

THF has been observed since May 2000 and now represents a high percentage of the overall VOC's detected. THF is widely used in industry with applications in the manufacture of polymers and resins, lacquers, glues, paints, and inks. Also, preliminary investigation reveals that THF is one of the possible ingredients for PVC cements and pipe solvents in plumbing. Reviewing several MSDS's for PVC cements indicated the presence of THF. Deteriorating pipe joints or connections in the plant which are made of PVC might be possible sources of THF.

Effluent concentrations of iron and manganese were within the discharge limitations. The September data reveals that the influent iron concentration was at 25,700 ppb, which appears unrealistically high. This concentration is 25 times more than the average concentration and five times more than the highest measured historical concentration of iron. The effluent iron concentration was within discharge limit at 85.5 ppb. This represents more than 99.66 % removal of total iron which exceeds the average capacity of the plant and has never been observed suggesting error in the sampling procedure or analytical error.



ONE BLUE HILL PLAZA • P.O. BOX 1509 • PEARL RIVER, NY 10965
(914) 735-8300 • FACSIMILE (914) 735-7466 • WEBSITE: WWW.LMSENG.COM

LMS will continue to provide task management of the plant operations until September 30, 2000 unless otherwise directed by the NYSDEC. If you have any questions or comments please feel free to contact me at x 249.

Very Truly Yours,

Robert DeGiorgio, P.E.
Project Manager

Enclosures

cc: Phil Schade, H2M

**Lawler, Matusky & Skelly Engineers LLP** Environmental Science & Engineering Consultants



September 8, 2000
File No. 650-395

Mr. Carl Hoffman
New York State Department of Environmental Conservation
Operation and Maintenance Section - Bureau of Hazardous Site Control
Division of Environmental Remediation
50 Wolf Road
Albany, New York 12233-7010

Re: **Servall Laundry Site**
**8 Drayton Avenue, Bay Shore, Suffolk County**
**Site No. 1-52-077, Work Assignment No. D002676-39.2**
**National Waste Disposal Corp.**

Dear Mr. Hoffman:

Please be aware on September 30, 2000, Lawler, Matusky & Skelly Engineers LLP (LMS) will no longer be providing task management of the plant operations, including handling waste disposal, at the Servall Laundry Site. The NYSDEC shall coordinate directly with National Waste Disposal Corp. at (516) 242-0300 to update the contact information and billing arrangements.

This letter serves as formal notice of change in contact for both the NYSDEC and National Waste Disposal Corp. The final payment of $390 shall be made from LMS during the week of September 11, 2000 resulting in a $0.00 balance for waste disposal services as of September 30, 2000. If you have any questions or comments please feel free to contact me at extension 249.

Very Truly Yours,

Robert DeGiorgio, P.E.
Project Manager

cc: National Waste Disposal Corp.

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**Lawler, Matusky & Skelly Engineers LLP**

Environmental Science & Engineering Consultants

October 13, 2000
File No. 650-395

Mr. Carl Hoffman
New York State Department of Environmental Conservation
Operation and Maintenance Section - Bureau of Hazardous Site Control
Division of Environmental Remediation
50 Wolf Road
Albany, New York 12233-7010

Re: **Servall Laundry Site**
**Bay Shore, Suffolk County**
**Site No. 1-52-077, Work Assignment No. D002676-39.2**
**Monthly Report – September 2000**

Dear Mr. Hoffman:

Attached please find the Monthly Report for September 2000, the last monthly report submitted under Work Assignment No. D002676-39.2. This version includes the H2M report, which was not included in the previous monthly report, sent to you on September 28, 2000.

If you have any questions or comments please feel free to contact me at x 249.

Very Truly Yours,

Robert DeGiorgio, P.E.
Project Manager

Enclosures

cc: Phil Schade, H2M

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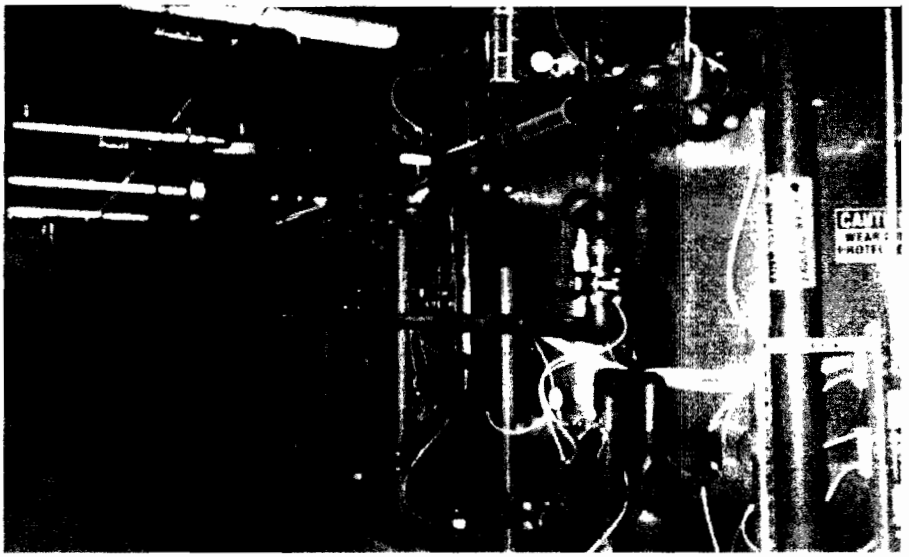
Servall Laundry Site
Site No. 1-52-077
Groundwater Remediation
Operation and Maintenance

Monthly Operations Report

September-00



**LAWLER, MATUSKY & SKELLY ENGINEERS LLP**
Environmental Science & Engineering Consultants
One Blue Hill Plaza
Pearl River, New York 10965

650-395

Servall Laundry
Site No. 1-52-077
Groundwater Remediation -2000 Operation and Maintenance

Summary Report

| Plant Operating Data | unit | Monthly Average (to date) | Monthly Average (2000) | January-00 | February-00 | March-00 | April-00 | May-00 | June-00 | July-00 | August-00 | September-00 | Total Year 2000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow Rate | gpm | 116 | 153 | 160.44 | 160.39 | 160.2 | 158.57 | 152.09 | 144.05 | 149.45 | 147.49 | 145.19 | - |
| Gallons processed | gallons | 3,469,692 | 3,389,778 | 4,154,420 | 5,390,400 | 3,744,760 | 3,862,440 | 3,408,300 | 1,839,960 | 2,771,780 | 3,023,240 | 2,312,700 | 30,508,000 |
| Percent of Time Operating | % | 53% | 52% | 62% | 86% | 56% | 60% | 51% | 28% | 43% | 45% | 35% | 52% |
| Pounds of VOCs Treated | lb | 1.6 | 3.3 | 2.16 | 4.42 | 4.51 | 4.58 | 3.63 | 5.00 | 0.86 | 2.38 | 1.89 | 29.45 |
| Influent VOC concentration | ug/L | 131 | 144 | 63.9 | 100.3 | 150.6 | 145.45 | 131.82 | 350.93 | 42.89 | 104.46 | 204.19 | - |
| Effluent VOC concentration | ug/L | 9.80 | 18.17 | 1.5 | 2 | 6.1 | 3.22 | 3.97 | 25.16 | 5.57 | 10.05 | 105.99 | - |
| Influent Total Iron | ug/L | 2,296 | 4,130 | 1270 | 308 | 689 | 426 | 1430 | 6320 | 444 | 583 | 25700 | - |
| Effluent Total Iron | ug/L | 444 | 805 | 100 | 32 | 32 | 75.5 | 3010 | 1780 | 732 | 1400 | 84.5 | - |
| Influent Total Manganese | ug/L | 737 | 900 | 593 | 542 | 517 | 499 | 864 | 2900 | 992 | 514 | 682 | - |
| Effluent Total Manganese | ug/L | 522 | 470 | 583 | 533 | 492 | 506 | 417 | 16.6 | 841 | 399 | 439 | - |
| VOC removal efficiency | % | 95.8% | 89.4% | 97.7% | 98.0% | 95.9% | 97.8% | 97.0% | 92.8% | 87.0% | 90.4% | 48.1% | 89.4% |
| Total Iron removal efficiency | % | 46.3% | 23.9% | 92.1% | 89.6% | 95.4% | 82.3% | -110.5% | 71.8% | -64.9% | -140.1% | 99.7% | 23.9% |
| Total Manganese removal efficiency | % | 14.1% | 25.7% | 1.7% | 1.7% | 4.8% | -1.4% | 51.7% | 99.4% | 15.2% | 22.4% | 35.6% | 25.7% |
| Cartridge Filters | ea | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 |
| Sodium hypochlorite (12%) | lb | 628 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 4,000 |
| Polymer | lb | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hydrogen peroxide (50%) | lb | 3704 | 4522 | 4538 | 4538 | 4538 | 4538 | 4538 | 4392 | 4538 | 4538 | 4538 | 40,698 |
| Caustic (50%) | lb | 2200 | 4839 | 5534 | 5177 | 5534 | 5355 | 5534 | 5355 | 357 | 5355 | 5355 | 43,554 |
| Hydrochloric Acid | lb | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spare Parts or other | at cost | $424 | $22 | $196 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $196 |
| Sludge generated (20% dewatered) | gal | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 225 |
| Sludge disposed of | gal | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electricity (estimated) | kw hr | 39767 | 37156 | 37,800 | 37,800 | 37,800 | 37,800 | 37,800 | 32,000 | 37,800 | 37,800 | 37,800 | 334,400 |
| Gas (estimated) | therms | 852 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 7,200 |
| Compliance Sampling | at cost | $882.10 | $650.61 | $655.50 | $650.00 | $650.00 | $650.00 | $650.00 | $650.00 | $650.00 | $650.00 | $650.00 | $5,856 |
| Operator | Month | $8,795 | $6,021 | $5,790 | $6,500 | $7,190 | $4,548 | $4,549 | $7,593 | $6,749 | $4,570 | $6,700 | $54,189 |
| Redevelopment | at cost | $1,955 | $0 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0 |
| Management & Engineering | at cost | $2,807 | $1,408 | $931 | $1,239.99 | $1,200.00 | $856.00 | $856.00 | $1,065.00 | $1,118.60 | $2,202.22 | $3,200.00 | $12,669 |
| *Consumables cost* | *$* | *$3,173* | *$3,451* | *$4,162* | *$3,441* | *$3,516* | *$3,479* | *$3,516* | *$3,406* | *$2,429* | *$3,479* | *$3,629* | $31,056 |
| *Sludge disposal cost* | *$* | *$48.13* | *$0.00* | *$0.00* | *$0.00* | *$0.00* | *$0.00* | *$0.00* | *$0.00* | *$0.00* | *$0.00* | *$0.00* | $0 |
| *Utilities cost* | *$* | *$3,877* | *$3,624* | *$3,682* | *$3,682* | *$3,682* | *$3,682* | *$3,682* | *$3,160* | *$3,682* | *$3,682* | *$3,682* | $32,616 |
| *Services cost* | *$* | *$14,439* | *$8,079* | *$7,376* | *$8,390* | *$9,040* | *$6,054* | *$6,055* | *$9,308* | *$8,518* | *$7,422* | *$10,550* | $72,713 |
| ***Operating Cost (Estimated)*** | ***$*** | ***$21,537*** | ***$15,154*** | ***$15,221*** | ***$15,513*** | ***$16,238*** | ***$13,215*** | ***$13,253*** | ***$15,874*** | ***$14,629*** | ***$14,583*** | ***$17,861*** | **$136,386** |

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

## 2000 Compliance Sampling

| **Influent** | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituents | Discharge Criteria | units | January | | February | | March | | April | | May | | June | |
| Chlorobenzene | 5 | ug/L | | U | | | | U | | U | | U | | |
| Vinyl Chloride | 2 | ug/L | | U | | | | U | | U | | U | | |
| 1,1-Dichloroethene | 5 | ug/L | 0.1 | J | | | | U | | U | | U | | |
| Trichloroethene | 5 | ug/L | 1 | | 1 | | 1 | | 1.1 | | 0.8 | | | |
| Tetrachloroethene | 5 | ug/L | 54 | E | 87 | | 140 | E | 130 | E | 47 | E | 14 | |
| 1,1-Dichloroethane | 5 | ug/L | 0.2 | J | | | | U | | U | | U | | |
| Toluene | 5 | ug/L | | U | 0.5 | | | U | | U | | U | 0.34 | JD |
| cis-1,2-Dichloroethene | 5 | ug/L | 0.3 | J | 0.6 | | 0.8 | | 0.6 | | 0.3 | J | 7.5 | |
| trans-1,2-Dichloroethene | 5 | ug/L | | U | | | | U | | U | | U | | |
| Methylene Chloride | N/A | ug/L | | U | 1.6 | JD | | U | 2.6 | JDB | 0.4 | JB | 13 | DB |
| 1,1,1-Trichloroethane | N/A | ug/L | 0.5 | | | | | U | 0.4 | J | 0.4 | J | | |
| Chloroform | N/A | ug/L | 0.2 | J | 0.2 | | | U | 1.9 | JDB | 6.4 | | 5.2 | |
| Bromodichloromethane | N/A | ug/L | | U | | | | U | | U | 0.38 | J | | |
| Trichlorofluoromethane | N/A | ug/L | | U | | | | U | | U | 0.1 | J | | |
| Tetrahydrofuran | N/A | ug/L | | | | | | | | | 73 | | 310 | E |
| Methyl tert-Butly Ether | N/A | ug/L | 7.6 | | 9.4 | | 8.8 | | 8.8 | J | 3.1 | J | 0.89 | J |
| **Total VOCs** | **N/A** | **ug/L** | **63.9** | | **100.3** | | **150.6** | | **145.5** | | **131.82** | | **350.93** | |
| pH | | | | | | | | | | | | | | |
| Iron (total) | 600[4] | ug/L | 1270 | | 308 | | 689 | | 426 | | 1430 | | 6320 | |
| Manganese (total) | 600[4] | ug/L | 593 | | 542 | | 517 | | 499 | | 864 | | 2900 | |
| Alkalinity | N/A | mg/L | 27 | | 29 | | 16 | | 15 | | 89 | | 44.2 | |
| Total Suspended Solids | N/A | mg/L | 10 | U | 10 | U | 10 | U | 5 | U | 6 | | 7 | |
| Total Solids | N/A | mg/L | 159 | | 162 | | 145 | | 156 | | 261 | | 344 | |
| | | | | | | | | | | | | | | |
| **Effluent** | | | | | | | | | | | | | | |
| Constituents | Discharge Criteria | units | January | | February | | March | | April | | May | | June | |
| Chlorobenzene | 5 | ug/L | | U | | | | U | | U | | U | | |
| Vinyl Chloride | 2 | ug/L | | U | | | | U | | U | | U | | |
| 1,1-Dichloroethene | 5 | ug/L | | U | | | | U | | U | | U | | |
| Trichloroethene | 5 | ug/L | | U | | | | U | | U | | U | | |
| Tetrachloroethene | 5 | ug/L | 0.7 | | 1.4 | | 4.2 | | 2.4 | | 2.2 | | 0.98 | |
| 1,1-Dichloroethane | 5 | ug/L | | U | | | | U | | U | | U | | |
| Styrene | 5 (POC) | ug/L | | | | | | | | | | | 5.5 | DB |
| Toluene | 5 | ug/L | | U | 0.2 | JB | | U | | U | | U | | |
| cis-1,2-Dichloroethene | 5 | ug/L | | U | | | | U | | U | | U | | |
| trans-1,2-Dichloroethene | 5 | ug/L | | U | | | | U | | U | | U | | |
| Methylene Chloride | N/A | ug/L | | U | | | | U | 0.2 | JB | 0.38 | JB | 7.6LE | DB |
| 1,1,1-Trichloroethane | N/A | ug/L | 0.3 | J | | | | U | | U | | U | | |
| Chloroform | N/A | ug/L | 0.3 | J | | | 0.7 | B | 0.1 | JB | 0.84 | | 0.45 | J |
| Tetrahydrofuran | 50 | ug/L | | | | | | | | | | | 18 | J |
| Acetone | N/A | ug/L | | | | | | | | | | | 100LE | |
| 2-Butanone | N/A | ug/L | | | | | | | | | | | 49LE | DB |
| Bromodichloromethane | N/A | ug/L | 0.2 | J | | | 0.4 | J | | U | | U | | |
| Methyl tert-Butly Ether | N/A | ug/L | | U | 0.4 | | 0.8 | | 0.5 | J | 0.55 | J | 0.23 | J |
| **Total VOCs** | **N/A** | **ug/L** | **1.5** | | **2** | | **6.1** | | **3.2** | | **3.97** | | **25.16** | |
| pH | | | | | | | | | | | | | | |
| Iron (total) | 600[4] | ug/L | 100 | | 32 | | 32 | U | 75.5 | B | **3010** | | **1780** | |
| Manganese (total) | 600[4] | ug/L | 583 | | 533 | | 492 | | 506 | | 417 | | 16.6 | |
| Alkalinity | N/A | mg/L | 2 | U | 38 | | 41 | | 43 | | 25.8 | | 2100 | |
| Total Suspended Solids | N/A | mg/L | 10 | U | 10 | U | 10 | U | 5 | U | 5 | U | 43 | |
| Total Solids | N/A | mg/L | 170 | | 171 | | 163 | | 183 | | 168 | | 2420 | |

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) pestiside/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 contaminant
13. LE - lab error or contamination likely

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

2000 Compliance Sampling

| **Influent** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituents | Discharge Criteria | units | July | | August | | September | | October | | November | | December | | |
| Chlorobenzene | 5 | ug/L | | U | | U | | U | | | | | | | |
| Vinyl Chloride | 2 | ug/L | | U | | U | | U | | | | | | | |
| 1,1-Dichloroethene | 5 | ug/L | | U | | U | | U | | | | | | | |
| Trichloroethene | 5 | ug/L | 0.94 | | | U | | U | | | | | | | |
| Tetrachloroethene | 5 | ug/L | 22 | | 1.2 | | | U | | | | | | | |
| 1,1-Dichloroethane | 5 | ug/L | | U | | U | | U | | | | | | | |
| Toluene | 5 | ug/L | | U | | U | | U | | | | | | | |
| cis-1,2-Dichloroethene | 5 | ug/L | 1.7 | | | U | 21 | | | | | | | | |
| trans-1,2-Dichloroethene | 5 | ug/L | | U | | U | | U | | | | | | | |
| Methylene Chloride | N/A | ug/L | 0.43 | | 0.36 | JB | 1.2 | JDB | | | | | | | |
| 1,1,1-Trichloroethane | N/A | ug/L | 0.32 | JB | | U | | U | | | | | | | |
| Chloroform | N/A | ug/L | | U | 1.9 | | 0.47 | JD | | | | | | | |
| Bromodichloromethane | N/A | ug/L | | U | | U | 0.42 | JD | | | | | | | |
| Trichlorofluoromethane | N/A | ug/L | | U | | U | | U | | | | | | | |
| Tetrahydrofuran | N/A | ug/L | 16 | J | 100 | J | 180 | D | | | | | | | |
| Methyl tert-Butly Ether | N/A | ug/L | 1.5 | JB | 1 | JB | 1.1 | JD | | | | | | | |
| **Total VOCs** | **N/A** | **ug/L** | **42.89** | | **104.46** | | **204.19** | | | | | | | | |
| pH | | | 6.38 | | 7.18 | | 6.66 | | | | | | | | |
| Iron (total) | 600[4] | ug/L | 444 | | 583 | | 25700 | | | | | | | | |
| Manganese (total) | 600[4] | ug/L | 992 | | 514 | | 682 | | | | | | | | |
| Alkalinity | N/A | mg/L | 25 | | 119 | | 72 | | | | | | | | |
| Total Suspended Solids | N/A | mg/L | 5 | U | 5 | U | 16 | | | | | | | | |
| Total Solids | N/A | mg/L | 138 | | 283 | | 165 | | | | | | | | |
| | | | | | | | | | | | | | | | |
| **Effluent** | | | | | | | | | | | | | | | |
| Constituents | Discharge Criteria | units | July | | August | | September | | October | | November | | December | | |
| Chlorobenzene | 5 | ug/L | | U | | U | | U | | | | | | | |
| Vinyl Chloride | 2 | ug/L | | U | | U | 0.28 | J | | | | | | | |
| 1,1-Dichloroethene | 5 | ug/L | | U | | U | | U | | | | | | | |
| Trichloroethene | 5 | ug/L | | U | | U | 0.69 | | | | | | | | |
| Tetrachloroethene | 5 | ug/L | 1.7 | | 0.38 | | 1.8 | | | | | | | | |
| 1,1-Dichloroethane | 5 | ug/L | | U | | U | | U | | | | | | | |
| Styrene | 5 (POC) | ug/L | | U | | U | | U | | | | | | | |
| Toluene | 5 | ug/L | | U | | U | | U | | | | | | | |
| cis-1,2-Dichloroethene | 5 | ug/L | | U | | U | 2.4 | | | | | | | | |
| trans-1,2-Dichloroethene | 5 | ug/L | | U | | U | | U | | | | | | | |
| Methylene Chloride | N/A | ug/L | | U | 0.87 | JB | 0.29 | | | | | | | | |
| 1,1,1-Trichloroethane | N/A | ug/L | | U | | U | | U | | | | | | | |
| Chloroform | N/A | ug/L | 0.15 | J | 1.9 | | 0.53 | | | | | | | | |
| Tetrahydrofuran | 50 | ug/L | 2.9 | J | 6.6 | J | 100 | | | | | | | | |
| Acetone | N/A | ug/L | | NA | | NA | | U | | | | | | | |
| 2-Butanone | N/A | ug/L | | NA | | NA | | U | | | | | | | |
| Bromodichloromethane | N/A | ug/L | | U | | U | | U | | | | | | | |
| Methyl tert-Butly Ether | N/A | ug/L | 0.82 | JB | 0.3 | JB | | U | | | | | | | |
| **Total VOCs** | **N/A** | **ug/L** | **5.57** | | **10.05** | | **105.99** | | | | | | | | |
| pH | | | 5.91 | | **11.65** | | 6.79 | | | | | | | | |
| Iron (total) | 600[4] | ug/L | **732** | | **1400** | | 84.5 | | | | | | | | |
| Manganese (total) | 600[4] | ug/L | **841** | | 399 | | 439 | | | | | | | | |
| Alkalinity | N/A | mg/L | 22 | | 668 | | 25 | | | | | | | | |
| Total Suspended Solids | N/A | mg/L | 5 | U | 20 | | 5 | | | | | | | | |
| Total Solids | N/A | mg/L | 142 | | 909 | | 83 | | | | | | | | |

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

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

Graphical Data Trends

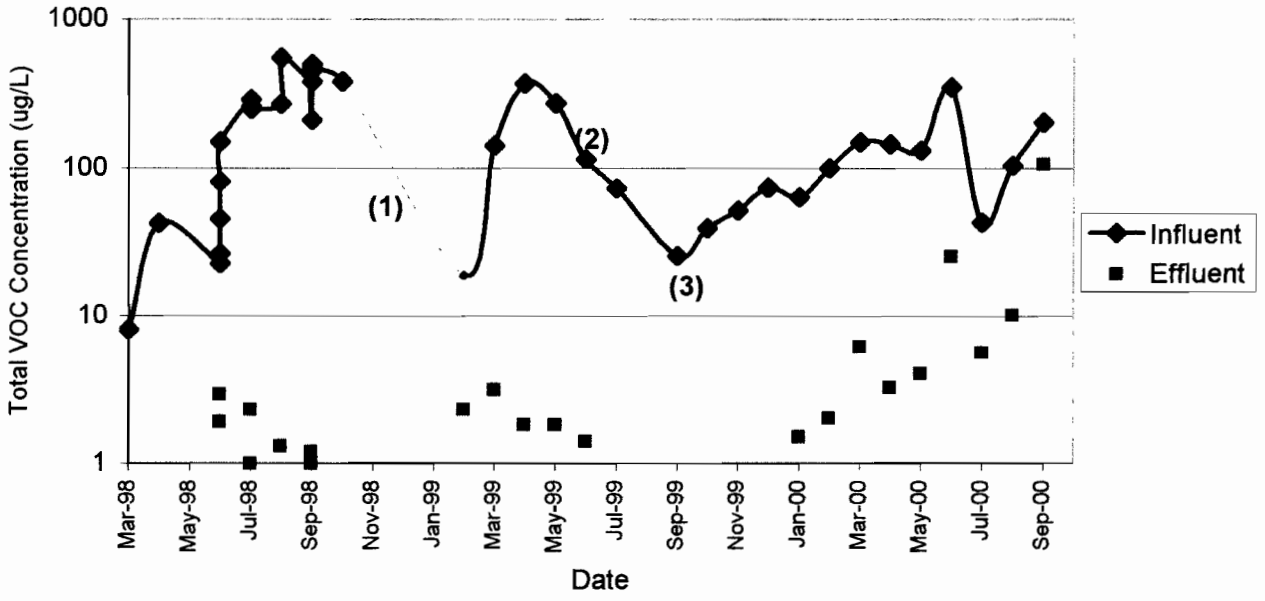



**Figure 1 - Total Volatile Organic Compound (VOC) Influent and Effluent Trends**

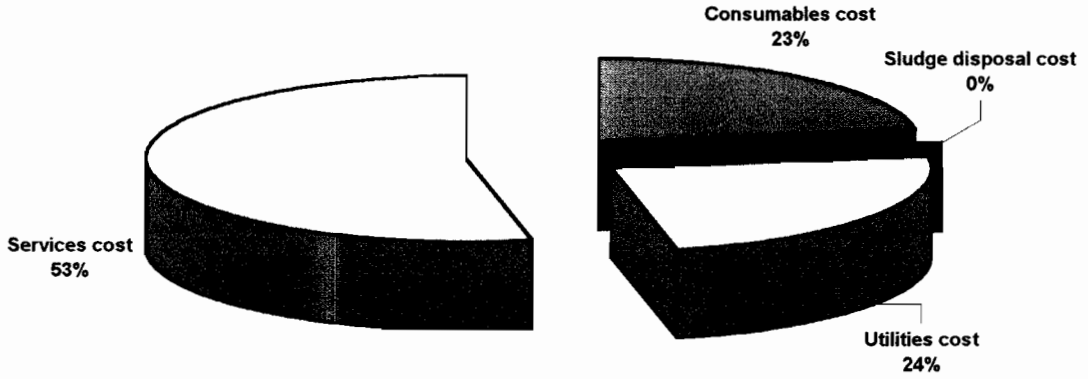



**Figure 2 - Monthly Average Operating Cost Breakdown - to date is $23,915**
**Avg. Monthly operating costs in the Year 2000 is $15,154**

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.

**Servall Laundry**
**Site No. 1-52-077**
**Groundwater Remediation - Operations and Maintenance Costs to Date**

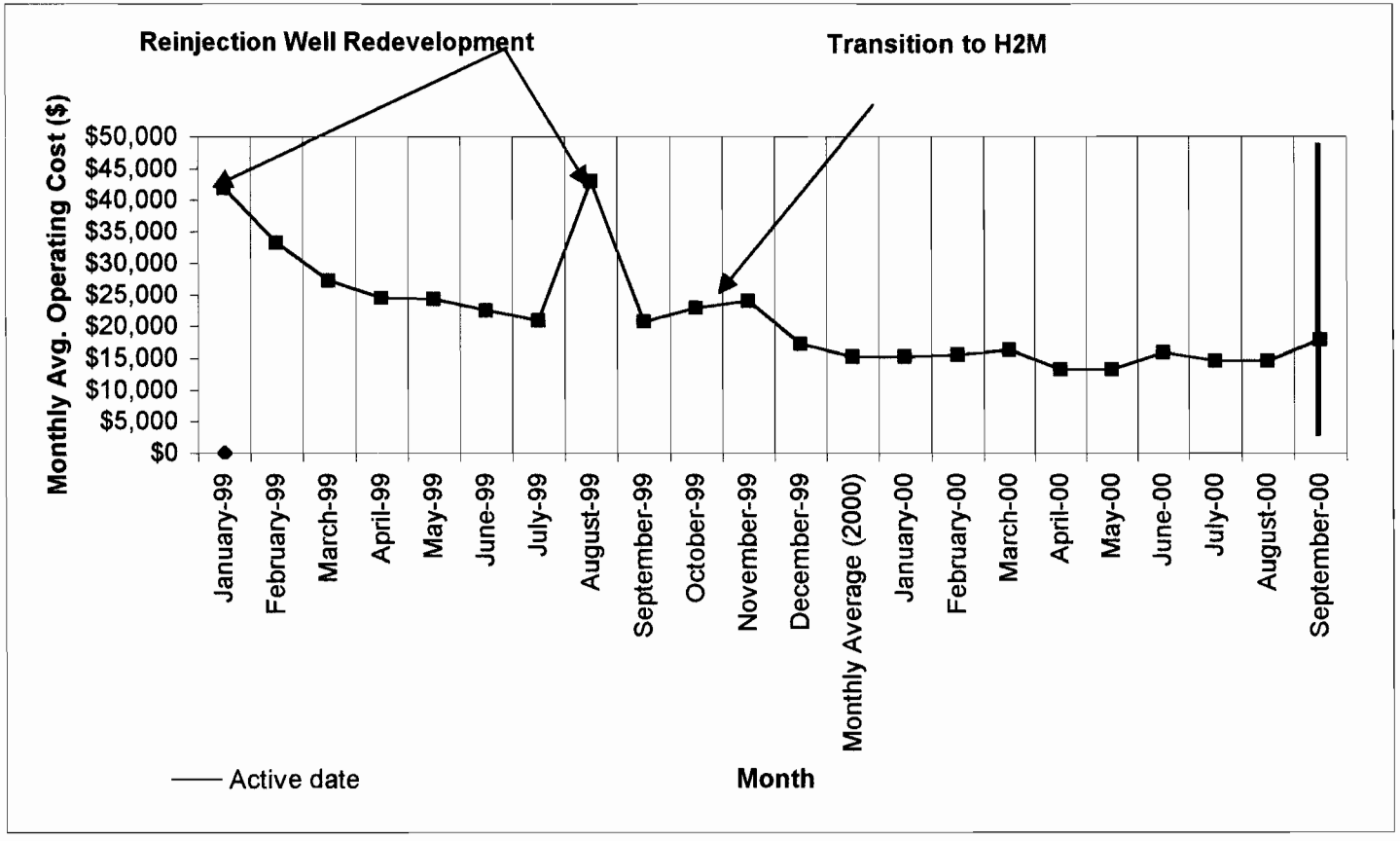



**Figure 3 - Average Operating Cost Trends (Estimated)**

H2MGROUP

**Holzmacher, McLendon & Murrell, P.C. • H2M Associates, Inc.**
**H2M Construction Management, Inc. • H2M Labs, Inc.**

ACEC Member
*Supporting Excellence In Engineering*

575 Broad Hollow Road, Melville, NY 11747-5076
(516) 756-8000 • Fax: (516) 694-4122

October 10, 2000

Robert J. DiGiorgio
Lawler, Matusky, & Skelly Engineers, LLP
One Blue Hill Plaza
Pearl River, NY 10965

Re: Servall Laundry QWETP
Bay Shore, New York
September 2000 Operations Report

Dear Mr. DeGiorgio:

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 September is provided below.

**Overview**

Routine equipment maintenance was performed and daily process equipment readings were collected during the month. H2M's current contract, relative to operation and maintenance of the subject facility, ended on September 30, 2000. Therefore, the facility was temporarily shut-down as of September 29, 2000.

**Event Schedule**

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

- 9/7/00 The monthly compliance samples were collected and sent to Severn Trent Laboratories via Federal Express.
- 9/12/00 Clean effluent filters were installed into their respective canisters.
- 9/25/00 All four sand filter canisters were manually backwashed.
- 9/26/00 A filter press cycle was performed. The sump was emptied into the equalization tank.

- 9/27/00 A small amount of sludge was collected from the previous day's filter press procedure.

  Effluent filters were taken out of the acid baths, washed down, and placed on top of the trench drain.

  General maintenance around the facility (i.e., mopping and cleaning) was accomplished.

- 9/28/00 The equalization tank was drained until only a trace amount of water remained within it. The valves from the extraction pipe were closed.

  The pumps controlling the delivery of sodium hydroxide (caustic), hydrogen peroxide, and sodium hypochlorite (bleach) were turned off. The pumps controlling the flow of water (4A, 4B, 6A and 6B) were turned off through the master control panel. The air compressor was shut down by switching it off through the master control panel. The sump pumps were turned off by means of the control panel immediately next to the sump.

- 9/29/00 Sand filter canisters were drained and vented, and solids were removed from the vent opening on the top of each canister.

  The pumps in the facility were serviced as per manufacturers' recommendations.

  The natural gas heating system thermostat was set to 66 degrees Fahrenheit.

Available treatment chemical volumes as of the end of September 2000 are as follows:

| Tank | Level | Volume |
|---|---|---|
| Acid | 54 in. | 2644 gal |
| Caustic | 20 in. | 600 gal |
| Peroxide | 20 in. | 800 gal |

**Plant Performance**

Between September 1, 2000 and September 29, 2000, the treatment plant discharged 2,312,700 gallons of treated water. The average flowrate of the UV/Oxidation system was 145.19 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.

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**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

David W. Nadler
Environmental Scientist

DWN/

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

H2MGROUP

Daily Operation Check List

Servall Laundry Site



| Day | Fri | Mon/Tu | Wed | Thur | Fri | Mon | Tue | Wed | Thur | Fri |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | 9/1 | 9/5 | 9/6 | 9/7 | 9/8 | 9/11 | 9/12 | 9/13 | 9/14 | 9/15 |
| Time | 8:20 | 7:45 | 8:30 | 7:30 | 7:20 | 7:20 | 7:40 | 8:00 | 8:10 | 7:30 |
| Extraction Well Level (feet) | 53.9 | 52.9 | 52.8 | 53.1 | 55.0 | 55.2 | 55.2 | 51.7 | 50.9 | 52.6 |
| Influent Flow Rate (gpm) | 154.29 | 156.87 | 153.72 | 152.14 | 156.33 | 154.49 | 153.71 | 151.50 | 156.63 | 159.24 |
| Influent Filter in Service (yes/no) | no | NO | no | NO | NO | no | no | no | NO | NO |
| Inlet Pressure (psi) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Outlet Pressure (psi) | 18 | 18 | 18 | 18 | 16 | 18 | 18 | 18 | 18 | 18 |
| Cartridge Filter Flow Rate (gpm) | 147.20 | 151.60 | 150.97 | 149.72 | 144.23 | 149.36 | 150.08 | 146.23 | 147.92 | 149.88 |
| Equalization Tank | | | | | | | | | | |
| Level (inches) | 54.81 | 52.86 | 51.96 | 52.23 | 51.90 | 51.86 | 53.27 | 54.11 | 56.20 | 54.47 |
| pH | 7.72 | 7.69 | 7.70 | 7.78 | 7.79 | 7.78 | 7.78 | 7.69 | 7.72 | 7.65 |
| 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) | 4A | 4B | 4B | 4B | 4B | 4B | 4B | 4B | 4B | 4B |
| UV/Oxidation Flow Rate (gpm) | 149.37 | 148.41 | 149.23 | 144.91 | 146.68 | 147.69 | 145.53 | 146.39 | 146.62 | 145.54 |
| 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 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 |
| Time | 12146.14 | 12191.53 | 12209.80 | 12225.75 | 12246.96 | 12286.84 | 12306.54 | 12329.09 | 12352.10 | 12370.78 |
| Lamp # 2 (on/off) | OFF | OFF | OFF | OFF | off | off | off | off | off | off |
| KV | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Time | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 |
| Lamp # 3 (on/off) | ~~ON~~ ON | ~~258~~ ON | ON | ON | ON | ON | ON | ON | ON | ON |
| KV | 258 | ~~7.0~~ 258 | 258 | 258 | 258 | 258 | 258 | 258 | 258 | 258 |
| Amps | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Time | 10550.76 | 10596.15 | 10614.42 | 10630.37 | 10651.58 | 10691.46 | 10711.16 | 10733.71 | 10756.72 | 10775.46 |
| Peroxide Pump Settings: Speed / Stroke | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 |
| Peroxide Residual Concentration (mg/l) | 13 | 12 | 11 | 11 | 13 | 12 | 11 | 12 | 13 | 12 |
| Totalizer Reading (gpm) | 99321710 | 99643050 | 99732410 | 99828740 | 99916530 | 100272730 | 100368950 | 100443050 | 100532010 | 100628120 |

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Daily Operation Check List

Servall Laundry Site



| Date | 9/1 | 9/5 | 9/6 | 9/7 | 9/8 | 9/11 | 9/12 | 9/13 | 9/14 | 9/15 |
|---|---|---|---|---|---|---|---|---|---|---|
| pH Adjust Tank | | | | | | | | | | |
| Level (inches) | 51.52 | 52.36 | 51.91 | 52.01 | 53.61 | 54.27 | 52.91 | 51.86 | 50.99 | 52.17 |
| pH | 7.68 | 7.67 | 7.63 | 7.65 | 7.62 | 7.68 | 7.61 | 7.63 | 7.64 | 7.67 |
| Mixer (on/off) | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON |
| Caustic Pump Settings: Speed / Stroke | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 |
| Polymer Feed Settings | OFF | off | OFF | OFF | OFF | off | off | off | OFF | OFF |
| Solution Pump: Speed / Stroke | | | | | | | | | | |
| Dilution Water Rate | | | | | | | | | | |
| Polymeer Bucket Weight (lbs.) | | | | | | | | | | |
| Sand Filter Feed Pump in Service (6A/6B) | 6B | 6B | 6B | 6B | 6B | 6B | 6B | 6B | 6B | 6B |
| Sand Filters | | | | | | | | | | |
| Filter # 1 inlet pressure (psi) | 20 | 20 | 20 | 22 | 22 | 20 | 22 | 20 | 20 | 22 |
| Filter #1 outlet pressure (psi) | 18 | 20 | 22 | 20 | 22 | 20 | 20 | 18 | 18 | 18 |
| Filter # 2 inlet pressure (psi) | 20 | 20 | 22 | 20 | 20 | 22 | 20 | 20 | 20 | 22 |
| Filter #2 outlet pressure (psi) | 20 | 22 | 20 | 20 | 22 | 20 | 20 | 20 | 20 | 20 |
| Filter # 3 inlet pressure (psi) | 20 | 20 | 20 | 20 | 20 | 20 | 22 | 20 | 20 | 20 |
| Filter #3 outlet pressure (psi) | 20 | 22 | 20 | 20 | 20 | 20 | 22 | 20 | 20 | 20 |
| Filter # 4 inlet pressure (psi) | 20 | 20 | 20 | 22 | 20 | 20 | 20 | 20 | 20 | 22 |
| Filter #4 outlet pressure (psi) | 20 | 18 | 20 | 20 | 20 | 18 | 20 | 20 | 22 | 20 |
| Effluent Flow Rate (gpm) | 141.11 | 142.08 | 141.43 | 145.60 | 143.98 | 149.39 | 142.61 | 142.28 | 147.36 | 141.80 |
| Effluent Filter in Service (yes/no) | Yes | Yes | yes | Yes | Yes | yes | yes | yes | yes | YES |
| Inlet Pressure (psi) | 16 | 16 | 16 | 16 | 16 | 16 | 18 | 18 | 18 | 18 |
| Outlet Pressure (psi) | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 14 | 14 |
| Reinjection Well Level (feet) | 57.18 | 56.22 | 54.21 | 53.19 | 53.37 | 52.81 | 51.60 | 53.81 | 52.60 | 51.94 |
| Chemical Storage Levels | | | | | | | | | | |
| Caustic Level (NaOH) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Peroxide Level ($H_2O_2$) | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 |
| Acid Level ($H_2SO_4$) | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 |
| Air Compressor (psi) | 150 | 150 | 150 | 150 | 140 | 150 | 160 | 160 | 150 | 150 |
| Compressed Air Dryer (on/off) | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON |
| Chlorine Pump: Speed / Stroke | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 |
| Chlorine Residual Concentration (mg/l) | 0.2 | 0.2 | 0.1 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 |

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Daily Operation Check List

Servall Laundry Site



| Day | Mon | Tue | Wed | Thur | Fri | Mon | Tue | Wed | Thur | Fri |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | 9/18 | 9/19 | 9/20 | 9/21 | 9/22 | 9/25 | 9/26 | 9/27 | 9/28 | 9/29 |
| Time | 8:30 | 8:20 | 7:50 | 7:30 | 8:00 | 8:10 | 8:20 | 8:00 | 7:00 | 7:00 |
| Extraction Well Level (feet) | 54.1 | 55.3 | 52.7 | 53.6 | 53.0 | 54.1 | 55.2 | 52.1 | 51.7 | 51.7 |
| Influent Flow Rate (gpm) | 152.61 | 153.17 | 154.90 | 153.11 | 152.67 | 154.73 | 156.20 | 150.91 | 0 | 0 |
| Influent Filter in Service (yes/no) | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| Inlet Pressure (psi) | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Outlet Pressure (psi) | 10 | 10 | 10 | 10 | 10 | 10 | 12 | 12 | 12 | 12 |
| Cartridge Filter Flow Rate (gpm) | 143.97 | 146.72 | 145.91 | 143.40 | 145.37 | 144.71 | 143.42 | 146.29 | 0 | 0 |
| Equalization Tank | | | | | | | | | | |
| Level (inches) | 53.71 | 54.11 | 52.91 | 53.88 | 54.19 | 53.66 | 54.13 | 53.72 | 15.1 | 15.1 |
| pH | 7.60 | 7.61 | 7.67 | 7.69 | 7.59 | 7.54 | 7.58 | 7.60 | 7.58 | 7.58 |
| 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) | 4A | 4A | 4A | 4A | 4A | 4A | 4A | 4A | OFF | OFF |
| UV/Oxidation Flow Rate (gpm) | 147.30 | 142.99 | 141.61 | 140.86 | 142.83 | 140.91 | 144.46 | 142.16 | 0 | 0 |
| UV/Oxidation Unit | | | | | | | | | | |
| Lamp # 1 (on/off) | On | ON | ON | On | On | On | ON | On | OFF | OFF |
| KV | 252 | 252 | 252 | 252 | 252 | 252 | 252 | 252 | 0 | 0 |
| Amps | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 0 | 0 |
| Time | 12412.64 | 12429.86 | 12451.81 | 12471.08 | 12491.13 | 12510.54 | 12532.02 | 12550.35 | 12550.35 | 12550.35 |
| Lamp # 2 (on/off) | OFF | Off | Off | OFF | OFF | OFF | OFF | Off | OFF | OFF |
| KV | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Time | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 | 5984.86 |
| Lamp # 3 (on/off) | ON | On | On | ON | ON | On | On | On | OFF | OFF |
| KV | 258 | 258 | 258 | 258 | 258 | 258 | 258 | 258 | 0 | 0 |
| Amps | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 0 | 0 |
| Time | 10817.26 | 10834.48 | 10856.43 | 10875.70 | 10895.75 | 10915.16 | 10936.64 | 10954.97 | 10954.97 | 10954.97 |
| Peroxide Pump Settings: Speed / Stroke | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | 50/50 | OFF | OFF |
| Peroxide Residual Concentration (mg/l) | 12 | 14 | 14 | 12 | 13 | ~~1250/50~~ | 13 | 12 | — | — |
| Totalizer Reading (gpm) | 100970280 | 101059020 | 101157030 | 101196010 | 100327500 | 101459930 | 101547860 | 101634410 | 101634410 | 101634410 |

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Daily Operation Check List

Servall Laundry Site



| Date | 9/18 | 9/19 | 9/20 | 9/21 | 9/22 | 9/25 | 9/26 | 9/27 | 9/28 | 9/29 |
|---|---|---|---|---|---|---|---|---|---|---|
| pH Adjust Tank | | | | | | | | | | |
| Level (inches) | 52.81 | 53.17 | 52.88 | 53.70 | 51.67 | 52.71 | 53.86 | 54.20 | 52.12 | 52.12 |
| pH | 7.62 | 7.77 | 7.80 | 7.76 | 7.72 | 7.70 | 7.71 | 7.70 | — | — |
| Mixer (on/off) | ON | ON | ON | ON | ON | ON | ON | ON | OFF | OFF |
| Caustic Pump Settings: Speed / Stroke | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | 45/35 | OFF | OFF |
| Polymer Feed Settings | Off | off | OFF | OFF | off | OFF | OFF | OFF | off | OFF |
| Solution Pump: Speed / Stroke | | | | | | | | | | |
| Dilution Water Rate | | | | | | | | | | |
| Polymeer Bucket Weight (lbs.) | | | | | | | | | | |
| Sand Filter Feed Pump in Service (6A/6B) | 6A | 6A | 6A | 6A | 6A | 6A | 6A | 6A | off | OFF |
| Sand Filters | | | | | | | | | | |
| Filter # 1 inlet pressure (psi) | 20 | 22 | 20 | 22 | 18 | 20 | 20 | 20 | 20 | 20 |
| Filter #1 outlet pressure (psi) | 20 | 20 | 18 | 20 | 20 | 20 | 22 | 22 | 20 | 20 |
| Filter # 2 inlet pressure (psi) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 18 |
| Filter #2 outlet pressure (psi) | 22 | 20 | 20 | 20 | 22 | 22 | 22 | 20 | 20 | 18 |
| Filter # 3 inlet pressure (psi) | 20 | 20 | 18 | 22 | 20 | 20 | 20 | 22 | 20 | 20 |
| Filter #3 outlet pressure (psi) | 20 | 22 | 20 | 22 | 22 | 22 | 22 | 20 | 20 | 18 |
| Filter # 4 inlet pressure (psi) | 22 | 20 | 22 | 20 | 20 | 20 | 20 | 20 | 20 | ~~20~~ |
| Filter #4 outlet pressure (psi) | 20 | 20 | 22 | 20 | 22 | 20 | 22 | 18 | 20 | 18 |
| Effluent Flow Rate (gpm) | 143.71 | 144.19 | 140.16 | 141.23 | 142.17 | 141.29 | 140.91 | 141.11 | 0 | 0 |
| Effluent Filter in Service (yes/no) | Yes | Yes | YES | Yes | Yes | Yes | Yes | Yes | yes | Yes |
| Inlet Pressure (psi) | 18 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Outlet Pressure (psi) | 12 | 10 | 10 | 10 | 12 | 14 | 14 | 12 | 12 | 12 |
| Reinjection Well Level (feet) | 56.80 | 54.23 | 54.72 | 55.12 | 52.88 | 51.84 | 52.70 | 51.80 | 51.71 | 51.71 |
| Chemical Storage Levels | | | | | | | | | | |
| Caustic Level (NaOH) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Peroxide Level ($H_2O_2$) | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 |
| Acid Level ($H_2SO_4$) | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 | 76.9 |
| Air Compressor (psi) | 150 | 150 | 140 | 150 | 150 | 140 | 150 | 140 | 140 | 140 |
| Compressed Air Dryer (on/off) | ON | ON | ON | ON | ON | ON | ON | ON | OFF | OFF |
| Chlorine Pump: Speed / Stroke | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | 60/85 | off | OFF |
| Chlorine Residual Concentration (mg/l) | 0.3 | 0.3 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | — | — |

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**Servall Laundry Process Control Samples**

| **Date** | 9/1 | 9/5 | 9/6 | 9/7 | 9/8 | 9/11 | 9/12 | 9/13 | 9/14 | 9/15 | 9/18 | 9/19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time** | 9:00 | 9:05 | 9:30 | 8:50 | 9:55 | 10:00 | 8:50 | 9:40 | 9:30 | 9:20 | 10:05 | 10:00 |
| **Influent** | | | | | | | | | | | | |
| Flow | 154.29 | 156.87 | 153.72 | 152.14 | 156.33 | 154.49 | 153.71 | 151.50 | 156.63 | 159.24 | 152.61 | 153.17 |
| pH | 6.07 | 6.10 | 6.00 | 6.08 | 5.98 | 6.01 | 6.03 | 6.07 | 5.98 | 6.01 | 6.11 | 6.04 |
| Iron | 0.7 | 0.6 | 0.7 | 0.7 | 0.8 | 0.5 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.6 |
| **UVOX** | | | | | | | | | | | | |
| Peroxide Residual | 13 | 12 | 11 | 11 | 13 | 12 | 11 | 12 | 13 | 12 | 12 | 14 |
| pH | 6.04 | 5.92 | 5.98 | 6.13 | 6.01 | 6.04 | 5.94 | 5.94 | 5.97 | 6.00 | 5.92 | 5.96 |
| **Effluent** | | | | | | | | | | | | |
| pH | 7.79 | 7.72 | 7.81 | 7.69 | 7.68 | 7.72 | 7.77 | 7.64 | 7.60 | 7.59 | 7.61 | 7.68 |
| Iron | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| Chlorine | 0.2 | 0.2 | 0.1 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 |

| **Date** | 9/20 | 9/21 | 9/22 | 9/25 | 9/26 | 9/27 | 9/28 | 9/29 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time** | 9:40 | 9:30 | 9:40 | 10:00 | 9:40 | 9:30 | — | — | | | | |
| **Influent** | | | | | | | | | | | | |
| Flow | 154.90 | 153.11 | 152.67 | 154.73 | 156.20 | 150.91 | 0 | 0 | | | | |
| pH | 5.99 | 6.04 | 6.00 | 5.95 | 5.96 | 5.94 | — | — | | | | |
| Iron | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | — | — | | | | |
| **UVOX** | | | | | | | | | | | | |
| Peroxide Residual | 14 | 12 | 13 | 12 | 13 | 12 | — | — | | | | |
| pH | 5.96 | 6.00 | 6.01 | 5.99 | 5.92 | 5.91 | — | — | | | | |
| **Effluent** | | | | | | | | | | | | |
| pH | 7.73 | 7.72 | 7.76 | 7.80 | 7.65 | 7.69 | — | — | | | | |
| Iron | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | — | — | | | | |
| Chlorine | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | — | — | | | | |