STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

Mr. Frank Ruksznis
Superintendent
Guilford-Sangerville Sanitary District
P.O. Box 370
Guilford, Maine 04443

August 10, 2004

RE: Maine Waste Discharge License (WDL) Application #W006792-5L-G-R
Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0102032
Final License/Permit

Dear Mr. Ruksznis:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL which was approved by the Department of Environmental Protection. This permit/license supersedes the National Pollutant Discharge Elimination System (NPDES) permit #ME0102032, last issued by the Environmental Protection Agency (EPA) on February 11, 1998. Please read the permit/license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

We would like to make you aware of the fact that your monthly Discharge Monitoring Reports (DMR) may not reflect the revisions in this permitting action for several months. However, you are required to report applicable test results for parameters required by this permitting action that do not appear on the DMR. Please see the attached April 2003 O&M Newsletter article regarding this matter.

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Resource Regulation
Bureau of Land and Water Quality

Enc.
cc: Clarissa Trasko, DEP/EMRO Ted Lavery, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-1507

DMR Lag

(reprinted from April 2003 O&M Newsletter)

When the Department renews discharge permits, the parameter limits may change or parameters may be added or deleted. In some cases, it is merely the replacement of the federally issued NPDES permit with a state-issued MEPDES permit that results in different limits. When the new permit is finalized, a copy of the permit is passed to our data entry staff for coding into EPA's Permits Compliance System (PCS) database. PCS was developed in the 1970's and is not user-friendly. Entering or changing parameters can take weeks or even months. This can create a lag between the time your new permit becomes effective and the new permit limits appearing on your DMRs. If you are faced with this, it can create three different situations that have to be dealt with in different ways.

1. If the parameter was included on previous DMRs, but only the limit was changed, there will be a space for the data. Please go ahead and enter it. When the changes are made to PCS, the program will have the data and compare it to the new limit.

2. When a parameter is eliminated from monitoring in your new permit, but there is a delay in changing the DMR, you will have a space on the DMR that needs to be filled. For a parameter that has been eliminated, please enter the space on the DMR for that parameter only with "NODI-9" (No Discharge Indicator Code #9). This code means monitoring is conditional or not required this monitoring period.

3. When your new permit includes parameters for which monitoring was not previously required, and coding has not caught up on the DMRs, there will not be any space on the DMR identified for those parameters. In that case, please fill out an extra sheet of paper with the facility name and permit number, along with all of the information normally required for each parameter (parameter code, data, frequency of analysis, sample type, and number of exceedances). Each data point should be identified as monthly average, weekly average, daily max, etc. and the units of measurement such as mg/L or lb/day. Staple the extra sheet to the DMR so that the extra data stays with the DMR form. Our data entry staff cannot enter the data for the new parameters until the PCS coding catches up. When the PCS coding does catch up, our data entry staff will have the data right at hand to do the entry without having to take the extra time to seek it from your inspector or from you.

   EPA is planning significant improvements for the PCS system that will be implemented in the next few years. These improvements should allow us to issue modified permits and DMRs concurrently. Until then we appreciate your assistance and patience in this effort.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

GUILFORD-SANGERVILLE	)	MAINE POLUTANT DISCHARGE
SANITARY DISTRICT	)	ELIMINATION SYSTEM PERMIT
GUILFORD, PISCATAQUIS COUNTY, MAINE	)	AND
PUBLICLY OWNED TREATMENT WORKS	)	WASTE DISCHARGE LICENSE
#W006792-5L-G-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et. seq. and Maine Law 38 M.R.S.A., Section 414-A et seq., the Department of Environmental Protection (Department) has considered the application of the GUILFORD-SANGERVILLE SANITARY DISTRICT (GSSD), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The applicant has applied to the Department for renewal of Department Waste Discharge License (WDL) #W006792-47-F-R which was issued on August 28, 1997 and expired on August 28, 2002. The 8/28/97 WDL authorized the discharge of up to a daily maximum flow of 0.93 million gallons per day (MGD) of secondary treated sanitary waste waters to the Piscataquis River, Class B, in Guilford, Maine. It is noted the Piscataquis River was reclassified from a Class C waterway to a Class B waterway during the term of the previous licensing action.

MODIFICATIONS REQUESTED

The permittee has requested the following modifications of the previous licensing action:

1. Correct a typographical error in the previous licensing action by establishing the flow limit of 0.93 MGD as a monthly average limit as opposed to a daily maximum limit.

2. Reduce the testing frequency for sulfide, phenols and total chromium from 1/Quarter to 1/Year based on the historic test results for said parameters.

3. Eliminate the daily maximum total residual chlorine limit from the license as the facility is in compliance with the bacteria limits established in the license without disinfecting the discharge.

PERMIT SUMMARY

This permitting action is similar to the 8/28/97 WDL action in that it is;

1. Carrying forward the surveillance and screening level monitoring frequency of 2/Year for whole effluent toxicity (WET) testing and chemical specific testing.

2. Carrying forward the ground water quality monitoring and reporting requirements to serve as a vehicle for leak detection for the lagoon system.'

This permitting action is different than the 8/28/97 WDL action in that it is;

3. Establishing four tiers (Tier IA, Tier IB, Tier IIA and Tier IIB) of monthly average and or daily maximum technology and or water quality based mass and concentration limits for all parameters including critical water quality thresholds for whole effluent toxicity (WET) testing.

4. Establishing the flow limit of 0.93 MGD for Tier IB & Tier IIB as a monthly average rather than a daily maximum to correct a typographical error in the previous licensing action and establishing a flow limitation of 0.465 MGD for Tier IA & Tier IIA.

5. Establishing a requirement to achieve 85% removal for BOD_5 and TSS.

6. Eliminating sulfide limitations and monitoring requirements.

7. Establishing a daily maximum best practicable treatment (BPT) limit of 0.3 ml/L for settleable solids and deleting the weekly average concentration reporting requirement.

8. Establishing a daily maximum water quality based and monthly average BPT based limit for total residual chlorine.

9. Revising the daily maximum BPT pH range limit from 6.0 – 8.5 standard units to 6.0 – 9.0 standard units based on a new Department regulation.

10. Establishing water quality based chronic no observed effect level (C-NOEL) limits for the brook trout and water flea.

11. Establishing monthly average and or daily maximum mass limits for antimony, arsenic, copper and lead.

12. Establishing a seasonal (June 1 – September 30) monitoring and reporting requirement for total phosphorus.

13. Requiring the permittee to develop and or maintain an up-to-date Operations and Maintenance (O&M) plan and Wet Weather Flow Management Plan for the waste water treatment facility.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated July 8, 2004, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:

   a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   b. Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;

   c. The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

   d. Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and

   e. Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the application of the GUILFORD-SANGERVILLE SANITARY DISTRICT, to discharge up to a monthly average flow of 0.93 million gallons per day (MGD) of secondary treated sanitary waste waters to the Piscataquis River, Class B in Guilford, Maine. The discharges shall be subject to the attached conditions and all applicable standards and regulations:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*," revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 11TH DAY OF AUGUST, 2004.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY: _____
Dawn Gallagher, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application June 27, 2002.

Date of application acceptance July 9, 2002.

FILED
AUG 13 2004
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection _____

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY
W67925LG 8/9/04

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the permit, the permittee is authorized to discharge treated waste waters via **OUTFALL #001** to the Piscataquis River. Such treated waste water discharges shall be limited and monitored by the permittee as specified below.

TIER #1A – Applicable when 40 CFR, Part 410, Subpart G (Stock & Yarn finishing) production level is <42,000 lbs/day and dry weather flows are ≤0.465 MGD.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow [50050]	0.465 MGD[03]	---	Report MGD[03]	---	---	---	Continuous [99/99]	Recorder [RC]
Biochemical Oxygen Demand (BOD_5) [00310]	258 lbs/Day [26]	---	478 lbs/Day [26]	66 mg/L [19]	---	123 mg/L [19]	2/Week [02/07]	Composite [24]
BOD_5 % Removal(1) [81010]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Total Suspended Solids (TSS) [00530]	441 lbs/Day [26]	---	845 lbs/Day[26]	114 mg/L [19]	---	218 mg/L [19]	2/Week [02/07]	Composite [24]
TSS % Removal(1) [81011]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Chemical Oxygen Demand (COD) [80108]	1,817 lbs/Day [26]	---	4,394 lbs/Day [26]	468 mg/L [19]	---	1,133 mg/L [19]	2/Week [02/07]	Composite [24]
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	2/Week [02/07]	Grab [GR]
E. coli Bacteria (2) [31633]	---	---	---	64/100 ml(3) [13]	---	427/100 ml [13]	2/Week [02/07]	Grab [GR]
Total Residual Chlorine(4) [50060]	---	---	---	0.1 mg/L [19]	---	0.3 mg/L [19]	1/Day [01/01]	Grab [GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER #1A – Applicable when 40 CFR, Part 410, Subpart G (Stock & Yarn finishing) production level is <42,000 lbs/day and dry weather flows are ≤0.465 MGD.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Ty as specified
Antimony (Total) [01097]	---	---	Report lbs/Day [26]	---	---	Report ug/L [28]	1/Quarter [01/YR]	Composite [24]
Arsenic (Total) [01002]	0.005 lbs/Day [26]	---	----	2.0 ug/L(5) [28]	---	---	1/Year [01/YR]	Composite [24]
Chromium (Total) [01034]	2.1 lbs/Day [26]	---	4.1 lbs/Day [26]	812 ug/L[28]	---	1,586 ug/L [28]	1/Year [01/YR]	Composite [24]
Copper (Total) [01097]	---	---	Report lbs/Day [26]	---	---	Report ug/L [28]	1/Quarter [01/YR]	Composite [24]
Lead (Total) [01051]	0.04 lbs/Day [26]	---	---	15 ug/L[28]	---	---	1/Year [01/YR]	Composite [illegible]
Phenols (Total) [46000]	2.1 lbs/Day [26]	---	4.1 lbs/Day [26]	812 ug/L[28]	---	1,586 ug/L [28]	1/Year [01/YR]	Composite [24]
Total Phosphorus [00665] *(June 1 – September 30)*	Report lbs/Day[26]	---	Report lbs/Day[26]	Report mg/L [19]	---	Report mg/L [19]	1/Month[01/30]	Composite [24]
pH (Std. Units) [00400]	---	---	---	---	---	6.0-9.0 [12]	3/Week [03/07]	Grab [GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER #1B – Applicable when 40 CFR, Part 410, Subpart G (Stock & Yarn finishing) production level is <42,000 lbs/day and dry weather flows are >0.465 MGD.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow [50050]	0.93 MGD[03]	---	Report MGD[03]	---	---	---	Continuous [99/99]	Recorder [RC]
Biochemical Oxygen Demand (BOD_5) [00310]	258 lbs/Day [26]	---	478 lbs/Day [26]	33 mg/L [19]	---	62 mg/L [19]	2/Week [02/07]	Composite [24]
BOD_5 % Removal(1) [81010]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Total Suspended Solids (TSS) [00530]	441 lbs/Day [26]	---	845 lbs/Day [26]	57 mg/L [19]	---	109 mg/L [19]	2/Week [02/07]	Composite [24]
TSS % Removal(1) [81011]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Chemical Oxygen Demand (COD) [80108]	1,817 lbs/Day [26]	---	4,394 lbs/Day [26]	234 mg/L [19]	---	567 mg/L [19]	2/Week [02/07]	Composite [24]
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	2/Week [02/07]	Grab [GR]
E. coli Bacteria (2) [31633]	---	---	---	64/100 ml(3) [13]	---	427/100 ml [13]	2/Week [02/07]	Grab [GR]
Total Residual Chlorine(4) [50060]	---	---	---	0.1 mg/L [19]	---	0.17 mg/L [19]	1/Day [01/01]	Grab [GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER #1B – Applicable when 40 CFR, Part 410, Subpart G (Stock & Yarn finishing) production level is <42,000 lbs/day and dry weather flows are >0.465 MGD.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Antimony (Total) [01097]	3.0 lbs/Day [26]	---	---	585 ug/L[28]	---	---	1/Quarter [01/YR]	Composite [24]
Arsenic (Total) 01002]	0.005 lbs/Day [26]	---	----	2.0 ug/L(5) [28]	---	---	1/Year [01/YR]	Composite [24]
Chromium (Total) [01034]	2.1 lbs/Day [26]	---	4.1 lbs/Day [26]	406 ug/L[28]	---	792 ug/L [28]	1/Year [01/YR]	Composite [24]
Copper (Total) [01097]	0.29 lbs/Day [26	---	0.27 lbs/Day [26]	57 ug/L[28	---	52 ug/L[28]	1/Quarter [01/YR]	Composite [24]
Lead (Total) [01051]	0.04 lbs/Day [26]	---	---	7.5 ug/L[28]	---	---	1/Year [01/YR]	Composite [24]
Phenols (Total) [46000]	2.1 lbs/Day [26]	---	4.1 lbs/Day [26]	406 ug/L[28]	---	792 ug/L [28]	1/Year [01/YR]	Composite [24]
Total Phosphorus [00665] *(June 1 – September 30)*	Report lbs/Day[26]	---	Report lbs/Day[26]	Report mg/L [19]	---	Report mg/L [19]	1/Month[01/30]	Composite [24]
pH (Std. Units) [00400]	---	---	---	---	---	6.0-9.0 [12]	3/Week [03/07]	Grab [GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

TIER #IIA – Applicable when 40 CFR, Part 410, Subpart G (Stock & Yarn finishing) production level is ≥42,000 lbs/day and dry weather flows are ≤0.465 MGD.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirement	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow [50050]	0.465 MGD[03]	---	Report MGD[03]	---	---	---	Continuous [99/99]	Recorder [RC]
Biochemical Oxygen Demand (BOD_5) [00310]	305 lbs/Day [26]	---	582 lbs/Day [26]	79 mg/L [19]	---	150 mg/L [19]	2/Week [02/07]	Composite [24]
BOD_5 % Removal(1) [81010]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Total Suspended Solids (TSS) [00530]	617 lbs/Day [26]	---	1,206 lbs/Day[26]	159 mg/L [19]	---	311 mg/L [19]	2/Week [02/07]	Composite [24]
TSS % Removal(1) [81011]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Chemical Oxygen Demand (COD) [80108]	2,752 lbs/Day [26]	---	5,443 lbs/Day [26]	710 mg/L [19]	---	1,404 mg/L [19]	2/Week [02/07]	Composite [24]
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	2/Week [02/07]	Grab [GR]
E. coli Bacteria (2) [31633]	---	---	---	64/100 ml(3) [13]	---	427/100 ml [13]	2/Week [02/07]	Grab [GR]
Total Residual Chlorine(4) [50060]	---	---	---	0.1 mg/L [19]	---	0.3 mg/L [19]	1/Day [01/01]	Grab [GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER #IIA – Applicable when 40 CFR, Part 410, Subpart G (Stock & Yarn finishing) production level is ≥42,000 lbs/day and dry weather flows are ≤0.465 MGD.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum As specified	Measurement Frequency as specified	Sample Type as specified
Antimony (Total) [01097]	Report lbs/Day [26]	---	---	Report ug/L[28]	---	---	1/Quarter [01/90]	Composite [24]
Arsenic (Total) [01002]	0.005 lbs/Day [26]	---	----	2.0 ug/L(5) [28]	---	---	1/Year [01/YR]	Composite [24]
Chromium (Total) [01034]	3.4 lbs/Day [26]	---	6.9 lbs/Day [26]	1,315 ug/L[28]	---	2,669 ug/L [28]	1/Year [01/YR]	Composite [24]
Copper (Total) [01042]	Report lbs/Day [26]	---	---	Report ug/L[28]	---	---	1/Quarter [01/90]	Composite [24]
Lead (Total) [01051]	0.04 lbs/Day [26]	---	---	15 ug/L[28]	---	---	1/Year [01/YR]	Composite [24]
Phenols (Total) [46000]	3.4 lbs/Day [26]	---	6.9 lbs/Day [26]	1,315 ug/L[28]	---	2,669 ug/L [28]	1/Year [01/YR]	Composite [24]
Total Phosphorus [00665] *(June 1 – September 30)*	Report lbs/Day[26]	---	Report lbs/Day[26]	Report mg/L [19]	---	Report mg/L [19]	1/Month [01/30]	Composite [24]
pH (Std. Units) [00400]	---	---	---	---	---	6.0-9.0 [12]	3/Week [03/07]	Grab [GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

TIER #IIB – Applicable when 40 CFR, Part 410, Subpart G (Stock & Yarn finishing) production level is ≥42,000 lbs/day and dry weather flows are >0.465 MGD.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow [50050]	0.93 MGD[03]	---	Report MGD[03]	---	---	---	Continuous [99/99]	Recorder [RC]
Biochemical Oxygen Demand (BOD_5) [00310]	305 lbs/Day [26]	---	582 lbs/Day [26]	39 mg/L [19]	---	75 mg/L [19]	2/Week [02/07]	Composite [24]
BOD_5 % Removal(1) [81010]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Total Suspended Solids (TSS) [00530]	617 lbs/Day [26]	---	1,206 lbs/Day[26]	80 mg/L [19]	---	155 mg/L [19]	2/Week [02/07]	Composite [24]
TSS % Removal(1) [81011]	---	---	---	85% [23]	---	---	1/Month [01/30]	Calculate [CA]
Chemical Oxygen Demand (COD) [80108]	2,752 lbs/Day [26]	---	5,443 lbs/Day [26]	355 mg/L [19]	---	702 mg/L [19]	2/Week [02/07]	Composite [24]
Settleable Solids [00545]	---	---	---	---	---	0.3 ml/L [25]	2/Week [02/07]	Grab [GR]
E. coli Bacteria (2) [31633]	---	---	---	64/100 ml(3) [13]	---	427/100 ml [13]	2/Week [02/07]	Grab [GR]
Total Residual Chlorine(4) [50060]	---	---	---	0.1 mg/L [19]	---	0.17 mg/L [19]	1/Day [01/01]	Grab [GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER #IIB – Applicable when 40 CFR, Part 430, Subpart G (Stock & Yarn finishing) production level is ≥42,000 lbs/day and dry weather flows are >0.465 MGD.

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Antimony (Total) [01097]	3.0 lbs/Day [26]	---	---	585 ug/L[28]	---	---	1/Quarter [01/90]	Composite [24]
Arsenic (Total) [01002]	0.005 lbs/Day [26]	---	----	1.0 ug/L(5) [28]	---	---	1/Year [01/YR]	Composite [24]
Chromium (Total) [01034]	3.4 lbs/Day [26]	---	6.9 lbs/Day [26]	658 ug/L[28]	---	1,334 ug/L [28]	1/Year [01/YR]	Composite [24]
Copper (Total) [01042]	0.29 lbs/Day [26]	---	0.27 lbs/Day [26]	57 ug/L[28]	---	52 ug/L[28]	1/Quarter [01/90]	Composite [24]
Lead (Total) [01051]	0.04 lbs/Day [26]	---	---	7.5 ug/L[28]	---	---	1/Year [01/YR]	Composite [24]
Phenols (Total) [46000]	3.4 lbs/Day [26]	---	6.9 lbs/Day [26]	658 ug/L[28]	---	1,334 ug/L [28]	1/Year [01/YR]	Composite [24]
Total Phosphorus [00665] *(June 1 – September 30)*	Report lbs/Day[26]	---	Report lbs/Day[26]	Report mg/L [19]	---	Report mg/L [19]	1/Month [01/30]	Composite [24]
pH (Std. Units) [00400]	---	---	---	---	---	6.0-9.0 [12]	3/Week [03/07]	Grab [GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd) – OUTFALL #001

SURVEILLANCE & SCREENING LEVEL TESTING – Beginning upon issuance and lasting through permit expiration.

TIER 1A and TIER IIA

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirement	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET)[6]								
A-NOEL								
Ceriodaphnia dubia [TDA3B]	---	---	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Salvelinus fontinalis [TDA6F]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Pimephales promelas [TDA6C]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
C-NOEL								
Ceriodaphnia dubia [TBP3B]	---	---	---	---	---	4.0% [23]	2/Year [02/YR]	Composite [24]
Salvelinus fontinalis [TBQ6F]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Pimephales promelas [TBP6C]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Chemical Specific[7] [50008]	---	---	---	---	---	Report ug/L [28]	2/Year [02/YR]	Composite/ Grab[24/G]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd) – OUTFALL #001

SURVEILLANCE & SCREENING LEVEL TESTING – Beginning upon issuance and lasting through permit expiration.

TIER IB and TIER IIB

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET)[6]								
A-NOEL								
Ceriodaphnia dubia [TDA3B]	---	---	---	---	---	Report % [23]	2/Year [02/YR]	Composite [24]
Salvelinus fontinalis [TDA6F]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Pimephales promelas [TDA6C]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
C-NOEL								
Ceriodaphnia dubia [TBP3B]	---	---	---	---	---	7.7% [23]	2/Year [02/YR]	Composite [24]
Salvelinus fontinalis [TBQ6F]	---	---	---	---	---	7.7 % [23]	1/Year [01/YR]	Composite [24]
Pimephales promelas [TBP6C]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Chemical Specific[7] [50008]	---	---	---	---	---	Report ug/L [28]	2/Year [02/YR]	Composite/ Grab [24/GR]

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

2. During the period beginning the effective date of the permit and lasting through the permit expiration date, the **Ground Water Monitoring Wells MW-1 and MW-4** shall be limited and monitored as specified below.

	Daily Maximum as specified	**Measurement Frequency** as specified	**Sample Type** as specified
Depth to Water Level Below Landsurface *[72019]*	Report (feet)[8] *[27]*	1/Year[9] *[01/YR]*	Measure *[MS]*
Nitrate-Nitrogen *[00620]*	10 mg/L *[19]*	1/Year[9] *[01/YR]*	Grab *[GR]*
Chloride (Total) *[00940]*	Report (mg/L) *[19]*	1/Year[9] *[01/YR]*	Grab *[GR]*
Specific Conductance *[00095]*	Report (umhos/cm) *[11]*	1/Year[9] *[01/YR]*	Grab *[GR]*
Temperature (°C) *[00010]*	Report (°C) *[04]*	1/Year[9] *[01/YR]*	Grab *[GR]*
pH (Standard Units) *[00400]*	Report (S.U.) *[12]*	1/Year[9] *[01/YR]*	Grab *[GR]*
Total Suspended Solids *[00530]*	Report (mg/L) *[19]*	1/Year[9] *[01/YR]*	Grab *[GR]*

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

Sampling Locations:
Influent sampling for BOD_5 and TSS shall be sampled (composite) at the Water Street pump station.

Effluent receiving secondary treatment (Outfall #001) shall be sampled (composite and grab) for all parameters specified in Special Condition A(1) after the chlorine contact chamber (including after dechlorination when applicable) on a year-round basis.

Any change in sampling location(s) must be reviewed and approved by the Department in writing.

Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Service.

Tier I and Tier II limitations are differentiated by a mutually agreed upon production level threshold of 42,000 lbs/day for 40 CFR, Part 410, Subpart G (Stock & Yarn Finishing) category. Tier I limitations and monitoring requirements are applicable when Subpart G production is less than 42,000 lbs/day for 10 production days or less during a calendar month and Tier II limitations are applicable when Subpart G production is greater than or equal to 42,000 lbs/day for more than 10 production days during a calendar month.

Tier IA and Tier IB (as well as Tier IIA & Tier IIB) are differentiated by the monthly average flow limitations of 0.465 MGD and 0.93 MGD, respectively. The permittee is authorized to discharge under Tier IB and Tier IIB limitations when the dry weather influent flow to the treatment plant exceeds 0.465 MGD for three consecutive months.

1. **Percent removal** – For secondary treated waste waters, the facility shall maintain a minimum of 85 percent removal of both BOD_5 and TSS. Monthly average percent removal values shall be calculated based on influent and effluent concentrations. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report *"NODI-9"* on the monthly Discharge Monitoring Report.

2. ***E. coli* bacteria** - Limits are seasonal and apply between May 15 and September 30 of each calendar year. The Department reserves the right to require disinfection on a year-round basis to protect the health and welfare of the public. Testing for TRC is only required when elemental chlorine or chlorine based compounds are being utilized to disinfect the discharge.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

3. ***E. coli* bacteria** – The monthly average limitation is a geometric mean limitation and shall be calculated and reported as such.

4. **Total Residual Chlorine** – Limitations and monitoring requirements are applicable whenever elemental chlorine or chlorine based compounds are being used to disinfect the discharge. (TRC) shall be tested using Amperometric Titration or the DPD Spectrophotometric Method. The EPA approved methods are found in Standard Methods for the Examination of Water and Waste Water, , Method 4500-CL-E and Method 4500-CL-G or U.S.E.P.A. Manual of Methods of Analysis of Water and Wastes.

5. **Arsenic (Total)** - Compliance with the monthly average concentration limitation will be based on the Department's most current reporting level (RL) of detection. As of the date of this permitting action, the Department's RL is 5 ug/L.

   Detectable results: All detectable analytical test results shall be reported to the Department including results which are detected below the RL. If the concentration result is at or above the RL, the concentration shall be reported at that level and the mass calculated and reported based on the flow for the day of sampling. If the detectable result is below the RL, report the concentrated detected and report <0.005 lbs/day for mass on the Discharge Monitoring Report (DMR) form.

   Non-detectable results: If the analytical test result is below RL, the concentration result shall be reported as <X where X is the detection level achieved by the laboratory for that test. Because a mass cannot be calculated with less than a value, report <0.005 lbs/day on the DMR.

6. **Whole effluent toxicity (WET) testing** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic thresholds of 5.9% and 4.0% respectively for Tier I and 11% and 7.7 % respectively for Tier II), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. It is noted the critical thresholds were derived as the mathematical inverse of the applicable dilution factors. See pages 8 and 9 of the Fact Sheet of this permit for the derivation of the dilution factors. Critical A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

Beginning upon issuance of this permit and lasting through the expiration date of the permit, the permittee shall conduct surveillance and screening level WET testing at a frequency of 2/Year, in the second and fourth calendar quarters of each year. Testing shall be performed on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*) in one of the two calendar quarters and on the water flea *(Ceriodaphnia dubia)* and the fathead minnow *(Pimephales promelas)* in the other calendar quarter. Tests on the vertebrate species (brook trout and fathead minnow) should be altered from year to year such that each species is tested in both the second and fourth calendar quarters over the term of the permit. Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals.

a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, 4th Edition, October 2002, EPA-821-R-02-013.

b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, 5th Edition, October 2002, EPA-821-R-02-012.

The permittee is also required to analyze the effluent for the parameters specified in the analytic chemistry on the form in Attachment A of this permit each time a WET test is performed.

7. **Priority pollutant** - (chemical specific testing pursuant to Department rule Chapter 530.5) testing are those parameters listed by the USEPA pursuant to Section 307(a) of the Clean Water Act and published a 40 CFR Part 122, Appendix D, Tables II and III. **Beginning upon issuance of this permit and lasting through the expiration date of the permit**, the permittee shall conduct surveillance and screening level chemical specific testing at a frequency of 2/Year. Chemical specific testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, where applicable. Chemical specific testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. Results shall be submitted to the Department within thirty (30) days of the licensee receiving the data report from the laboratory conducting the testing. For the purposes of DMR reporting, enter a "NODI-9" for no testing done this monitoring period or "1" for yes, testing done this monitoring period.

SPECIAL CONDITION

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

All mercury sampling shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.

8. **Depth To Water Level Below Surface** – Shall be measured to the nearest 1/10th of a foot.

9. **Ground Water Monitoring** – Sampling shall be conducted in the month of May of each year. Consistent trends upwards or sudden spikes from previous levels shall be reported immediately to the Department, and may necessitate the need for additional ground water testing requirements.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated by the classification of the receiving waters.

2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.

3. The discharges shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated by the classification of the receiving waters.

4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

SPECIAL CONDITIONS

C. DISINFECTION

If chlorination is used as a means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized, followed by a dechlorination system if the Total residual chlorine (TRC) cannot be met by dissipation in the detention tank. The TRC in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall be sufficient to leave a TRC concentration that will effectively reduce bacteria to levels below those specified in Special Condition A, *"Effluent Limitations and Monitoring Requirements"*, above.

D. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a **Grade III**, certificate pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the licensee may engage the services of the contract operator.

E. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the following address:

Department of Environmental Protection
Eastern Maine Regional Office
Bureau of Land and Water Quality
Division of Compliance, Engineering & Technical Assistance
106 Hogan Road
Bangor, Maine 04401

F. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall 001. Discharges of waste water from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition B(5) (Bypass) of this permit.

SPECIAL CONDITIONS

G. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

H. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D of this permit, the permittee shall notify the Department of the following.

1. Any introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water; and

2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:

   (a) the quality and quantity of waste water introduced to the waste water collection and treatment system; and

   (b) any anticipated impact caused by the change in the quantity or quality of the waste water to be discharged from the treatment system.

I. WET WEATHER FLOW MANAGEMENT PLAN

The permittee shall maintain a current Wet Weather Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall.

The plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events. Once the Wet Weather Management Plan has been approved, the permittee shall review their plan annually and record any necessary changes to keep the plan up to date.

SPECIAL CONDITIONS

J. OPERATION & MAINTENANCE (O&M) PLAN

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year (beginning December 31, 2004), or within 90 days of any process changes or minor equipment upgrades, the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the waste water treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and EPA personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the waste water treatment facility, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

K. REOPENING OF THE PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at anytime and with notice to the permittee, modify this permit to; 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded, (2) require additional effluent and or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

ATTACHMENT A

FRESHWATER WHOLE EFFLUENT TOXICITY (WET) TEST REPORT

Facility _____ DEP License No _____ NPDES permit No _____

Contact person _____ Telephone No _____

Date initially sampled _____ (mm/dd/yy) Date tested _____ (mm/dd/yy) Chlorinated? _____

Test type screening _____ surveillance _____ Dechlorinated? _____

Results % effluent Test required by: DEP/EPA

	Water flea	Trout	Fathead
LC50			
A-NOEL			
C-NOEL			

Receiving Water Concentration

A-NOEL	
C-NOEL	

Data summary

	water flea			tro ut			fat head		
	% survival		no. young	% survival		final wt (mg)	% survival		final wt (mg)
QC standard	A>90	C>80	>15/female	A>90	C>80	>2% increase	A>89	C>79	>0.25
lab control									
river water control									
conc. 1 (%)									
conc. 2 (%)									
conc. 3 (%)									
conc. 4 (%)									
conc. 5 (%)									
conc. 6 (%)									
stat test used									

place * next to values statistically different from controls for trout show final wt and % incr for both controls

Reference toxicant

	water flea		tro ut		fat head	
	LC50/A-NOEL	C-NOEL	LC50/A-NOEL	C-NOEL	LC50/A-NOEL	C-NOEL
toxicant / date						
limits (mg/l)						
results (mg/l)						

Comments _____

Laboratory Conducting Test. To the best of my knowledge this information is true, accurate, and complete

signature _____ company _____

printed name _____ address _____

tel. no. _____

Report analytical chemistry on reverse side.

ANALYTICAL CHEMISTRY RESULTS
FRESHWATER TESTS

Date collected _____ mm/dd/yy

Date analyzed _____ mm/dd/yy

Lab ID No. _____

Analyte	Report Units	Results receiving water	Results effluent	Detection level	Method
Alkalinity	mg/L			mg/L	
Ammonia nitrogen	µg/L			µg/L	
Specific conductance	µmhos			µmhos	
Total residual chlorine	mg/L			mg/L	
Total organic carbon	mg/L			mg/L	
Total solids	mg/L			mg/L	
Total suspended solids	mg/L			mg/L	
Total aluminum	µg/L			µg/L	
Total cadmium	µg/L			µg/L	
Total calcium	mg/L			mg/L	
Total chromium	µg/L			µg/L	
Total copper	µg/L			µg/L	
Total hardness	mg/L			mg/L	
Total lead	µg/L			µg/L	
Total magnesium	µg/L			µg/L	
Total nickel	µg/L			µg/L	
Total zinc	µg/L			µg/L	
other (pH)	S.U.			S.U.	
other ( )					

Comments _____

Laboratory conducting test. To the best of my knowledge this information is true, accurate, and complete

signature _____ lab name _____

printed name _____ address _____

tel. no. _____

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
&
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **July 8, 2004**

PERMIT NUMBER: **ME0102032**
LICENSE NUMBER: **W006792-5L-G-R**

NAME AND ADDRESS OF APPLICANT:

Guilford-Sangerville Sanitary District
P.O. Box 370
Guilford, Maine 04443

COUNTY: **Piscataquis County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

22 Dean Road
Guilford, Maine 04443

RECEIVING WATER/CLASSIFICATION: **Piscataquis River/Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Frank Ruksznis**
(207) 876-4598

1. APPLICATION SUMMARY

a. Application: The applicant has applied to the Department for renewal of Department Waste Discharge License (WDL) #W006792-47-F-R which was issued on August 28, 1997 and expired on August 28, 2002. The 8/28/97 WDL authorized the discharge of up to a daily maximum flow of 0.93 million gallons per day (MGD) of secondary treated sanitary waste waters to the Piscataquis River, Class C, in Guilford, Maine. It is noted the Piscataquis River was reclassified from a Class C waterway to a Class B waterway during the term of the previous licensing action.

1. APPLICATION SUMMARY (cont'd)

b. Modifications Requested: The permittee has requested the following modifications of the previous licensing action:

1. Correct a typographical error in the previous licensing action by establishing the Tier II flow limit of 0.93 MGD as a monthly average limit as opposed to a daily maximum limit.

2. Reduce the testing frequency for sulfide, phenols and total chromium from 1/Quarter to 1/Year based on the historic record on non-detectable results for said parameters.

3. Eliminate the total residual chlorine limit from the license as the facility is in compliance with the bacteria limits established in the license without disinfecting the discharge.

2. PERMIT SUMMARY

a. Regulatory - On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) permitting program in Maine except in certain areas of the State. The Penobscot Indian Nation raised objections to EPA authorizing the State to adminster the program for dischargers on the tributaries of and the main stem of the Penobscot River north of Indian Island in Old Town, Maine. The discharge from the GSSD fell within the disputed area, therefore, the State of Maine was not authorizied to issue a MEPDES permit for the GSSD facilty. However, on October 31, 2003, the EPA authorized the State to administer the NPDES program for all non-tribal facilities including the GSSD facility.

b. Permit Limitations and Monitoring Requirements: **This permitting action is similar to the 8/28/97 WDL action in that it is;**

1. Carrying forward the surveillance and screening level monitoring frequency of 2/Year for whole effluent toxicity (WET) testing and chemical specific testing.

2. Carrying forward the ground water quality monitoring and reporting requirements to serve as a vehicle for leak detection for the lagoon system.'

This permitting action is different than the 8/28/97 WDL action in that it is;

3. Establishing four tiers (Tier IA, Tier IB, Tier IIA and Tier IIB) of monthly average and or daily maximum technology and or water quality based mass and concentration limits for all parameters including critical water quality thresholds for whole effluent toxicity (WET) testing.

2. PERMIT SUMMARY (cont'd)

4. Establishing the Tier I B & Tier IIB flow limit of 0.93 MGD as a monthly average rather than a daily maximum to correct a typographical error in the previous licensing action action and establishing a flow limitation of 0.465 MGD for Tier IA & Tier II A.

5. Establishing a requirement to achieve 85% removal for BOD_5 and TSS.

6. Eliminating sulfide limitations and monitoring requirements.

7. Establishing a daily maximum best practicable treatment (BPT) limit of 0.3 ml/L for settleable solids and deleting the weekly average concentration reporting requirement.

8. Establishing a daily maximum water quality based and monthly average BPT based limit for total residual chlorine.

9. Revising the daily maximum BPT pH range limit from 6.0 – 8.5 standard units to 6.0 – 9.0 standard units based on a new Department regulation.

10. Establishing water quality based chronic no observed effect level (C-NOEL) limits for the brook trout and water flea.

11. Establishing monthly average and or daily maximum mass and concentration limits for antimony, arsenic, copper and lead.

12. Establishing a seasonal (June 1 – September 30) monitoring and reporting requirement for total phosphorus.

13. Requiring the permittee to develop and or maintain an up-to-date Operations and Maintenance (O&M) plan and Wet Weather Flow Management Plan for the waste water treatment facility.

c. History: The most current relevant regulatory activities include the following:

August 28, 1997 – The Department issued WDL renewal #W006792-47-F-R for a five-year term.

February 11, 1998 - The EPA issued NPDES permit #ME0102032 for a five-year term.

May 23, 2000 – The Department adminstratively modified the GSSD's WDL by establishing average and maximum concentration limits of 25.9 ng/L and 38.7 ng/L respectively, for mercury.

2. PERMIT SUMMARY (cont'd)

September 17, 2001 – The GSSD filed a timely application with the EPA to renew the NPDES for the waste water treatment facility. The application was never acted on as EPA was not authorized to issue NPDES permits in the disputed area of the State until a decision regarding authorization of the NPDES program was finalized.

June 27, 2002 – The GSSD filed a timely application with the Department to renew the WDL for the waste water treatment facility.

d. Source Description: The waste water treatment facility receives sanitary waste water flows from a population of approximately 1,200 residential and commercial users within the District's boundaries. The GSSD has one industrial contributor to its system, Interface Fabrics Inc.(Interface). Interface is a manufacturer of polyester/woolen products that at full production capacity, contributes approximately 73% of the total flow, 97% of the total biochemical oxygen demand (BOD_5), 14% of the total suspended solids (TSS) and 92% of the chemical oxygen demand (COD) loading to the treatment facility. The GSSD is not currently required to develop a formal pretreatment program pursuant to federal regulations.

The GSSD owns and maintains a sewer collection system that is approximately 11 miles in length and is 100% separated from the storm water collection system resulting in no combined sewer overflows (CSO) in the system. The collection system has seven (7) pump stations. Two of the seven pump stations have on-site back-up power and five are served by a portable generator. All seven pump stations are equipped with tele-dialer alarm systems. The GSSD is not currently authorized to receive septage from local septage haulers.

e. Waste Water Treatment: The GSSD waste water treatment facility became operational in January of 1988. The facility provides a secondary level of treatment via four aerated lagoons that are normally operated in series but can be operated in parallel if necessary. Aeration is provided by a fine bubble diffused aeration system. The four lagoons have a total surface area of 9.60 acres, have a volume of 38.0 million gallons and provides for a detention time of 65 days at the maximum monthly average design flow of 0.93 MGD. The system's seasonal disinfection include an automated gaseous chlorine addition and dechlorinated with sulfur dioxide. Secondary treated waste waters are measured via a magnetic flow meter and are discharged to the Piscataquis River via a ductile iron pipe measuring 18 inches in diameter with a three port diffuser to enhance mixing of the effluent with the receiving water. See Attachment A of this Fact Sheet for schematic of the waste water treatment process. The District currently utilizes a reed bed with an area of approximately 3,000 square feet for sludge treatment.

2. PERMIT SUMMARY (cont'd)

Interface pre-treats waste waters conveyed to the GSSD waste water treatment facility via flow equalization and neutralization utilizing an automated pH control system which adds acid or caustic chemical solutions as needed. The flow is measured using a parshall flume prior to being conveyed to the GSSD treatment facility.

3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges require application of best practicable treatment, be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, Maine law, 38 M.R.S.A., Section 420, and Department Regulation Chapter 530.5, *Surface Water Toxics Control Program* requires the regulation of toxic substances at the levels set forth for Federal Water Quality Criteria as published by the U.S. Environmental Protection Agency pursuant to the Clean Water Act.

4. RECEIVING WATER STANDARDS

Maine law, 38 M.R.S.A., Section 467(7)(E)(1)(b&c) classify the Piscataquis River from the Route #15 bridge in Guilford to its confluence with the Penobscot River as a Class B waterway. Maine law, 38 M.R.S.A., Section 465(3) describes standards for classification of Class B waters.

5. RECEIVING WATER CONDITIONS

It is noted the Department has conducted ambient water quality surveys in 1997, 1998 and 2001 on the Piscataquis River in an effort to assess the existing water quality and develop a water quality model to support the issuance of a TMDL report. Ambient water quality sampling was conducted on 23 miles of the Piscataquis River from Guilford to Milo. The Department published a document entitled, *Piscataquis River Data Report, 2001 Survey, January 2002, DEPLW0465*, with the results of the sampling events.

The 2002 Integrated Water Quality Monitoring and Assessment Report, published by the Department [*Table 5-A: Rivers And Streams Impaired By Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL Required)]* states that aquatic life standards and recreation in and on the water in a 12-mile segment of the Piscataquis River below Dover-Foxcroft are impaired. The report lists low dissolved oxygen levels and bacteria as a result of municipal point sources, agricultural non-point sources and combined sewer overflows as being the cause of the impairment.

5. RECEIVING WATER CONDITIONS

The Department is scheduled to perform a comprehensive evaluation of the data collected, calibrate an existing model of the river and prepare a TMDL for the 12-mile segment by the spring of calendar year 2008. If the evaluation and modeling runs determine that at full permitted discharge limits, the GSSD's discharge is causing or contributing to the non-attainment, this permit will be re-opened per Special Condition K, *Reopening Of The Permit For Modifications*, to impose more stringent limitations to meet water quality standards.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The GSSD has one industrial contributor to its system, Interface Fabrics Inc (Interface). Interface is a manufacturer of polyester/woolen products that contributes approximately 73% of the total flow (at full production), 97% of the total biochemical oxygen demand (BOD_5) and 14% of the total suspended solids (TSS) and 92% of the chemical oxygen demand (COD) loading to the treatment facility. The EPA has developed National Effluent Guidelines and Standards found at 40 CFR, Part 410, *Textile Mills Point Source Category* for facilities such as Interface. Applicable subparts of 40 CFR Part 410 include:

Subpart B - *Wool Finishing Subcategory* – Is applicable to process waters resulting from textile mills that are wool finishers including processes such as carbonizing, fulling, dyeing, bleaching, rinsing, fireproofing, and other similar processes. Interface Fabric Group Inc. conducts wool stock dyeing at its facility.

The most stringent technology based [best practicable treatment (BPT) and or best available technology economically achievable (BAT)] limitations expressed in pounds/1000 pounds of wool have been established for the following parameters:

	Daily Maximum	Daily Average
BOD	22.4	11.2
COD	163	81.5
TSS	35.2	17.6
Sulfide	0.28	0.14
Phenol	0.14	0.07
Total Chromium	0.14	0.07

For the purposes of the regulation, *wool* means the dry raw wool as it is received by the wool scouring mill.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Subpart C – Low Water Use Processing Subcategory – Is applicable to process waters resulting from textile mills that include processes such as yarn manufacturing, yarn texturizing, unfinished fabric manufacturing, fabric coating, fabric laminating, tire cord and fabric dipping, and carpet tufting and carpet backing. Interface conducts polyester yarn texturing operations at its facility.

The most stringent technology based BPT and or BAT limitations for general processing expressed in pounds/1000 pounds of wool have been established for the following parameters:

	Daily Maximum	Daily Average
BOD	1.4	0.7
COD	2.8	1.4
TSS	1.4	0.7

Subpart G - Stock & Yarn Finishing Subcategory - Is applicable to process waters resulting from textile mills that include processes such as stock or yarn dyeing or finishing which may include unit operations and processes such as cleaning, scouring, bleaching, mercerizing, dyeing and special finishing. Interface conducts polyester stock and yarn dyeing operations.

The most stringent technology based BPT and or BAT limitations expressed in pounds/1000 pounds of wool have been established for the following parameters:

	Daily Maximum	Daily Average
BOD	6.8	3.4
COD	84.6	42.3
TSS	17.4	8.7
Sulfide	0.24	0.12
Phenol	0.12	0.06
Total Chromium	0.12	0.06

a. Tiered Limitations – The permittee has requested the Department establish four tiers of limitations in this permitting action due to concerns surrounding the applicability and imposition of effluent limitations for certain metals under various discharge flows and production regimes at Interface. Tier I and Tier II limitations are differentiated by a mutually agreed upon production level threshold of 42,000 lbs/day for 40 CFR, Part 410, Subpart G (Stock & Yarn Finishing) category. Tier I limitations and monitoring requirements are applicable when Subpart G production is less than 42,000 lbs/day for 10 production days or less during a calendar month and Tier II limitations are applicable when Subpart G production is greater than or equal to 42,000 lbs/day for more than 10 production days during a calendar month.

Tier IA and Tier IB (as well as Tier IIA & Tier IIB) are differentiated by the monthly average dry weather flow limitations of 0.465 MGD and 0.93 MGD, respectively. Therefore, the limitations applicable at any given time are based on:

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER IA – Subpart G production <42,000 lbs/day and monthly average dry weather flow ≤0.465 MGD.

TIER IB - Subpart G production <42,000 lbs/day and monthly average dry weather flow >0.465 MGD.

TIER IIA – Subpart G production ≥42,000 lbs/day and monthly average dry weather flow ≤0.465 MGD.

TIER IIB - Subpart G production ≥42,000 lbs/day and monthly average dry weather flow >0.465 MGD.

b. Flow: As a result of the imposition of water quality based mass and concentration limits for metals in this permit and to address future production increases at Interface, the Department and GSSD have mutually agreed to establish four tiers of limits for all parameters limited in this permitting action. As a result, this permit is establishing a monthly average limit of 0.465 MGD (½ of the facility design flow) for Tier IA and Tier IIA.

For Tier IB and Tier IIB, the previous licensing action mistakenly established the flow limitation of 0.93 MGD as a daily maximum limit rather than a monthly average limit which is the design capacity of the lagoon system. The permittee has requested the Department correct the error. This permitting action is establishing the flow limit of 0.93 MGD as a monthly average limit for Tier IB and Tier IIB.

c. Dilution Factors - The Department establishes applicable dilution factors for the discharge in accordance with freshwater protocols established in Department Rule Chapter 530.5, *Surface Water Toxics Control Program*, October 1994. The Department has determined that the discharge receives rapid and complete mixing with the receiving water due to the 3-port diffuser on the outfall pipe. With permit flow limits of 0.465 MGD (Tier IA & Tier IIA) and 0.93 MGD (Tier IB & Tier IIB), the dilution factors are as follows:

TIER IA & TIER IIA

Acute: 1Q10 = 11.5 cfs $\Rightarrow \frac{(11.5\text{ cfs})(0.6464) + (0.465\text{ MGD})}{(0.465\text{ MGD})} = 17:1$

Chronic: 7Q10 = 17.3 cfs $\Rightarrow \frac{(17.3\text{ cfs})(0.6464) + (0.465\text{ MGD})}{(0.465\text{ MGD})} = 25:1$

Harmonic Mean: = 51.8 cfs $\Rightarrow \frac{(51.8\text{ cfs})(0.6464) + (0.465\text{ MGD})}{(0.465\text{ MGD})} = 73:1$

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER IB & TIER IIB

Acute: 1Q10 = 11.5 cfs $\Rightarrow \frac{(11.5\text{ cfs})(0.6464) + (0.93\text{ MGD})}{(0.93\text{ MGD})} = 9.0:1$

Chronic: 7Q10 = 17.3 cfs $\Rightarrow \frac{(17.3\text{ cfs})(0.6464) + (0.93\text{ MGD})}{(0.93\text{ MGD})} = 13.0:1$

Harmonic Mean: = 51.8 cfs $\Rightarrow \frac{(51.8\text{ cfs})(0.6464) + (0.93\text{ MGD})}{(0.93\text{ MGD})} = 37:1$

d. Biochemical Oxygen Demand (BOD5), Total Suspended Solids (TSS) and Chemical Oxygen Demand (COD): The previous licensing action established technology based monthly average and daily maximum mass limitations for BOD and TSS based on a weighted loading calculation which took into consideration the variation in loadings between domestic (residential and commercial) sanitary waste waters and process waste waters generated by Interface. The monthly average and daily maximum mass limits for BOD5 were 305 lbs/day and 582 lbs/day respectively, and the monthly average and daily maximum mass limits for TSS were 617 lbs/day and 1,206 lbs/day respectively. Loadings from Interface. were and are now, based on historic and projected production figures and BPT and or BAT criteria in EPA's National Effluent Guidelines and Standards at 40 CFR, Part 410, *Textile Mills Point Source Category*.

The monthly average and daily maximum mass limitations for BOD_5, TSS and COD in this permitting action are based on projected loadings from the domestic sanitary waste waters and the production based loadings from Interface Fabric Group Inc.. The production levels used to calculate the final effluent limits for all parameters regulated by 40 CFR, Part 410 are as follows:

TIER I

Subpart B - Wool Finishing Subcategory – 3,000 lbs/day
Subpart C – Low Water Use Processing Subcategory – 4,000 lbs/day
Subpart G - Stock & Yarn Finishing Subcategory – 31,000 lbs/day

TIER II

Subpart B - Wool Finishing Subcategory – 3,000 lbs/day
Subpart C – Low Water Use Processing Subcategory – 4,000 lbs/day
Subpart G - Stock & Yarn Finishing Subcategory – 54,000 lbs/day

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER I - Applicable when 40 CFR, Part 430, Subpart G (Stock & Yarn finishing) production level is <42,000 lbs/day.

TIER I - Calculation of GSSD Effluent Limits				
	EPA Guidelines expressed in (lbs/1000 lbs) of Production 40 CFR 410 **Subpart B – Wool Finishing Subcategory**		Guidelines mass based permit limits expressed in lbs/day	
Production 3,000 lbs/day	Daily Maximum lbs/1000 lbs	Monthly Average lbs/1000 lbs	Daily Maximum lb/day	Monthly Average lb/day
BOD_5	22.4	11.2	67 lbs/day	34 lbs/day
TSS	35.2	17.6	106 lbs/day	52 lbs/day
COD	163	81.5	489 lbs/day	244 lbs/day
Phenol	0.14	0.07	0.42 lbs/day	0.20 lbs/day
T. Chromium	0.14	0.07	0.42 lbs/day	0.20 lbs/day

TIER I – Calculation of GSSD Effluent Limits				
	EPA Guidelines expressed in (lbs/1000 lbs) of Production 40 CFR 410 **Subpart C – Low Water Use Processing Sucategory**		Guidelines mass based permit limits expressed in lbs/day	
Production 4,000 lbs/day	Daily Maximum lbs/1000 lbs	Monthly Average lbs/1000 lbs	Daily Maximum lb/day	Monthly Average lb/day
BOD_5	1.4	0.7	5.6 lbs/day	2.8 lbs/day
TSS	1.4	0.7	5.6 lbs/day	2.8 lbs/day
COD	2.8	1.4	11 lbs/day	5.6 lbs/day

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER I - Applicable when 40 CFR, Part 430, Subpart G (Stock & Yarn finishing) production level is <42,000 lbs/day.

TIER I – Calculation of GSSD Effluent Limits				
	EPA Guidelines expressed in (lbs/1000 lbs) of Production 40 CFR 410 **Subpart G – Stock and Yarn Finishing Subcategory**		Guidelines mass based permit limits expressed in lbs/day	
Production 31,000 lbs/day	Daily Maximum lbs/1000 lbs	Monthly Average lbs/1000 lbs	Daily Maximum lb/day	Monthly Average lb/day
BOD_5	6.8	3.4	211 lbs/day	105 lbs/day
TSS	17.4	8.7	539 lbs/day	270 lbs/day
COD	84.6	42.3	2,623 lbs/day	1,311 lbs/day
Phenol	0.12	0.06	3.7 lbs/day	1.9 lbs/day
T. Chromium	0.12	0.06	3.7 lbs/day	1.9 lbs/day

Domestic Waste Water Only – Applicable for Tier I and Tier II				
Flow 0.465 MGD	Daily Maximum mg/l	Monthly Average mg/l	Daily Maximum lb/day	Monthly Average lb/day
BOD_5	50 mg/L	30 mg/L	194 lbs/day	116 lbs/day
TSS	50 mg/L	30 mg/L	194 lbs/day	116 lbs/day
COD	110 mg/L	66 mg/L	426 lbs/day	256 lbs/day

Footnotes:

(1) The permittee has requested the Department take into consideration the COD in the domestic waste water when calculate the permit limits for COD.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER II - Applicable when 40 CFR, Part 430, Subpart G (Stock & Yarn finishing) production level is ≥42,000 lbs/day.

TIER II- Calculation of GSSD Effluent Limits				
	EPA Guidelines expressed in (lbs/1000 lbs) of Production 40 CFR 410 **Subpart B – Wool Finishing Subcategory**		Guidelines mass based permit limits expressed in lbs/day	
Production 3,000 lbs/day	Daily Maximum lbs/1000 lbs	Monthly Average lbs/1000 lbs	Daily Maximum lb/day	Monthly Average lb/day
BOD_5	22.4	11.2	67 lbs/day	34 lbs/day
TSS	35.2	17.6	106 lbs/day	52 lbs/day
COD	163	81.5	489 lbs/day	244 lbs/day
Phenol	0.14	0.07	0.42 lbs/day	0.20 lbs/day
T. Chromium	0.14	0.07	0.42 lbs/day	0.20 lbs/day

TIER II – Calculation of GSSD Effluent Limits				
	EPA Guidelines expressed in (lbs/1000 lbs) of Production 40 CFR 410 **Subpart C – Low Water Use Processing Subcategory**		Guidelines mass based permit limits expressed in lbs/day	
Production 4,000 lbs/day	Daily Maximum lbs/1000 lbs	Monthly Average lbs/1000 lbs	Daily Maximum lb/day	Monthly Average lb/day
BOD_5	1.4	0.7	5.6 lbs/day	2.8 lbs/day
TSS	1.4	0.7	5.6 lbs/day	2.8 lbs/day
COD	2.8	1.4	11 lbs/day	5.6 lbs/day

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER II - Applicable when 40 CFR, Part 430, Subpart G (Stock & Yarn finishing) production level is ≥42,000 lbs/day.

TIER II - Calculation of GSSD Effluent Limits				
	EPA Guidelines expressed in (lbs/1000 lbs) of Production 40 CFR 410 **Subpart G – Stock and Yarn Finishing Subcategory**		Guidelines mass based permit limits expressed in lbs/day	
Production 54,000 lbs/day	Daily Maximum lbs/1000 lbs	Monthly Average lbs/1000 lbs	Daily Maximum lb/day	Monthly Average lb/day
BOD_5	6.8	3.4	367 lbs/day	184 lbs/day
TSS	17.4	8.7	940 lbs/day	470 lbs/day
COD	84.6	42.3	4,568 lbs/day	2,284 lbs/day
Phenol	0.12	0.06	6.5 lbs/day	3.2 lbs/day
T. Chromium	0.12	0.06	6.5 lbs/day	3.2 lbs/day

Domestic Waste Water Only – Applicable for Tier I and Tier II				
Flow 0.465 MGD	Daily Maximum mg/l	Monthly Average mg/l	Daily Maximum lb/day	Monthly Average lb/day
BOD_5	50 mg/L	30 mg/L	194 lbs/day	116 lbs/day
TSS	50 mg/L	30 mg/L	194 lbs/day	116 lbs/day
COD(1)	110 mg/L	66 mg/L	426 lbs/day	256 lbs/day

Footnotes:

(1) The permittee has requested the Department take into consideration the COD in the domestic waste water when calculate the permit limits for COD.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER I & TIER II- Permit Limitations (Industrial + Domestic)				
	TIER I		TIER II	
	Daily Maximum lbs/day	Monthly Average lbs/day	Daily Maximum lbs/day	Monthly Average lbs/day
BOD_5	478 lbs/day	258 lbs/day	634 lbs/day	337 lbs/day
TSS	845 lbs/day	441 lbs/day	1,246 lbs/day	641 lbs/day
COD	3,549 lbs/day	1,817 lbs/day	5,494 lbs/day	2,790 lbs/day
Phenol	4.1 lbs/day	2.1 lbs/day	6.9 lbs/day	3.4 lbs/day
Total Chromium	4.1 lbs/day	2.1 lbs/day	6.9 lbs/day	3.4 lbs/day

Reissued permits/licenses must also conform with EPA's anti-backsliding regulation. Section 402(o) of the CWA and EPA's regulations 40 CFR 122.44(l) prohibits issuance of a new permit/license with limits less stringent than in a previously issued permit/license except in certain circumstances. The previous WDL issued on August 29, 1997, limits the discharge of BOD, TSS and COD to the following:

	Daily Maximum lbs/day	Monthly Average lbs/day
BOD_5	582 lbs/day	305 lbs/day
TSS	1,206 lbs/day	617 lbs/day
COD	5,443 lbs/day	2,752 lbs/day

The monthly average and daily maximum mass limits for BOD, TSS and COD in the previous licensing are being carried forward in this permitting action for Tier II level limits as they are more stringent than the technology based limits calculated in the table above. As for Tier I, the technology based limitations calculated in the table above are more stringent than the previous licensing action and are therefore being established as Tier I limitations. A summary of the mass limitations established in this permit are as follows:

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER IA, TIER IB & TIER IIA, TIER IIB- Permit Limitations (Industrial + Domestic)				
	TIER IA & TIER IB		TIER IIA & TIER IIB	
	Daily Maximum lbs/day	Monthly Average lbs/day	Daily Maximum lbs/day	Monthly Average Lbs/day
BOD_5	478 lbs/day	258 lbs/day	582 lbs/day	305 lbs/day
TSS	845 lbs/day	441 lbs/day	1,206 lbs/day	617 lbs/day
COD	4,394 lbs/day	1,817 lbs/day	5,443 lbs/day	2,752 lbs/day

To ensure best practicable treatment is being applied to the discharge under all production regimes at Interface Fabric and discharge regimes from the GSSD treatment facility, the Department is establishing monthly average and daily maximum concentration limits for all parameters. Concentration limits in this permitting action are based on Department rule Chapter 523, §6(f)(2) which states that pollutants limited in terms of mass additionally may be limited in terms of other units of measurement.

End-of-pipe concentration limits were derived by back-calculating using the applicable monthly average flow limitation for each tier. For Tier IA & Tier IIA a flow limitation of 0.465 MGD was utilized and for Tier IB & Tier IIB a flow limitation of 0.93 MGD was utilized. The limits are as follows:

TIER IA & TIER IB- Permit Limitations (Industrial + Domestic)				
	TIER IA		TIER IB	
	Daily Maximum mg/L	Monthly Average mg/L	Daily Maximum mg/L	Monthly Average Mg/L
BOD_5	123 mg/L	66 mg/L	62 mg/L	33 mg/L
TSS	218 mg/L	114 mg/L	109 mg/L	57 mg/L
COD	1,133 mg/L	468 mg/L	567 mg/L	234 mg/L

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Example calculations:

TIER IA - BOD_5

Daily Maximum

$\frac{478 \text{ lbs/day}}{(0.465 \text{ MGD})(8.34)} = 123 \text{ mg/L}$

Monthly Average

$\frac{258 \text{ lbs/day}}{(0.465 \text{ MGD})(8.34)} = 66 \text{ mg/L}$

TIER IB - - BOD_5

Daily Maximum

$\frac{478 \text{ lbs/day}}{(0.93 \text{ MGD})(8.34)} = 62 \text{ mg/L}$

Monthly Average

$\frac{258 \text{ lbs/day}}{(0.93 \text{ MGD})(8.34)} = 33 \text{ mg/L}$

For Tier IIA a flow limitation of 0.465 MGD was utilized and for Tier IIB a flow limitation of 0.93 MGD was utilized. The limits are as follows:

TIER IIA & TIER IIB- Permit Limitations (Industrial + Domestic)				
	TIER IIA		TIER IIB	
	Daily Maximum mg/L	Monthly Average mg/L	Daily Maximum mg/L	Monthly Average mg/L
BOD_5	150 mg/L	79 mg/L	75 mg/L	39 mg/L
TSS	311 mg/L	159 mg/L	155 mg/L	80 mg/L
COD	1,404 mg/L	710 mg/L	702 mg/L	355 mg/L

Example calculations:

TIER IIA - BOD_5

Daily Maximum

$\frac{582 \text{ lbs/day}}{(0.465 \text{ MGD})(8.34)} = 150 \text{ mg/L}$

Monthly Average

$\frac{305 \text{ lbs/day}}{(0.465 \text{ MGD})(8.34)} = 79 \text{ mg/L}$

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER IIB - - BOD_5

Daily Maximum

1,206 lbs/day = 155 mg/L
(0.93 MGD)(8.34)

Monthly Average

617 lbs/day = 80 mg/L
(0.93 MGD)(8.34)

e. Phenol and Total chromium – The previous licensing action established technology based monthly average and daily maximum mass limitations for phenol and total chromium in accordance with 40 CFR, Part 410. This permitting action is carrying forward those limitations as Tier IIA and Tier IIB limitations. Calculations for Tier I and Tier II limitations were derived earlier in this Fact Sheet based on different levels of production and are summarized as follows:

TIER I & TIER II- Permit Limitations (Industrial + Domestic)				
	TIER I		TIER II	
	Daily Maximum lbs/day	Monthly Average Lbs/day	Daily Maximum lbs/day	Monthly Average lbs/day
Phenol	4.1 lbs/day	2.1 lbs/day	6.9 lbs/day	3.4 lbs/day
Total Chromium	4.1 lbs/day	2.1 lbs/day	6.9 lbs/day	3.4 lbs/day

Phenols and total chromium which are potentially toxic pollutants, EPA's Technical Support Document For Water Quality Based Toxics Control, March 1991, Chapter 5, Section 5.7, recommends that permit limits for both mass and concentration be specified for effluents discharging into waters with less than 100 fold dilution to ensure attainment of water quality standards. As not to penalize the GSSD facility for operating at flows less than the permitted flow of the waste water plant, the Department is establishing concentration limits based on a factor of 1.5 which is consistent with all other permitting actions by the Department when establishing concentration limits for toxic pollutants. Therefore, concentration limits for phenol and total chromium have been back-calculated utilizing a Tier IA & Tier IIA flow limitation of 0.465 MGD. The concentration limits are as follows:

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

TIER IA & TIER IIA- Permit Limitations (Industrial + Domestic)				
	TIER IA		TIER IIA	
	Daily Maximum mg/L	Monthly Average Mg/L	Daily Maximum mg/L	Monthly Average mg/L
Phenol	1,586 ug/L	812 ug/L	2,669 ug/L	1,315 ug/L
Total Chromium	1,586 ug/L	812 ug/L	2,669ug/L	1,315 ug/L

Example calculations:

TIER IA - Phenol

Daily Maximum

$$\frac{(4.1 \text{ lbs/day}(1.5)}{(0.465 \text{ MGD})(8.34)} = 1{,}586 \text{ ug/L}$$

Monthly Average

$$\frac{(2.1 \text{ lbs/day}(1.5)}{(0.465 \text{ MGD})(8.34)} = 812 \text{ ug/L}$$

TIER- IIA - - Phenols

Daily Maximum

$$\frac{(6.9 \text{ lbs/day}(1.5)}{(0.465 \text{ MGD})(8.34)} = 2{,}669 \text{ ug/L}$$

Monthly Average

$$\frac{(3.4 \text{ lbs/day}(1.5)}{(0.465 \text{ MGD})(8.34)} = 1{,}315 \text{ ug/L}$$

TIER IB & TIER IIB- Permit Limitations (Industrial + Domestic)				
	TIER IB		TIER IIB	
	Daily Maximum mg/L	Monthly Average mg/L	Daily Maximum mg/L	Monthly Average mg/L
Phenol	406 ug/L	792 ug/L	1,334 ug/L	658 ug/L
Total Chromium	406 ug/L	792 ug/L	1, 334 ug/L	658 ug/L

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Example calculations:

TIER IB - Phenol

Daily Maximum	Monthly Average
$\frac{(4.1 \text{ lbs/day}(1.5)}{(0.93 \text{ MGD})(8.34)} = 792$ ug/L	$\frac{(2.1 \text{ lbs/day}(1.5)}{(0.93 \text{ MGD})(8.34)} = 406$ ug/L

TIER- IIB - - Phenols

Daily Maximum	Monthly Average
$\frac{(6.9 \text{ lbs/day}(1.5)}{(0.93 \text{ MGD})(8.34)} = 1{,}334$ ug/L	$\frac{(3.4 \text{ lbs/day}(1.5)}{(0.93 \text{ MGD})(8.34)} = 658$ ug/L

It is noted the monthly average and daily maximum technology based mass limits for sulfide in the previous licensing action are not being carried forward in this permitting action as Interface no longer utilizes sulfide based processes in their manufacturing facility. In addition, the monitoring frequencies for chromium and phenols have been reduced from 1/Quarter to 1/Year based on the fact historical test results are consistently one to two orders of magnitude below the mass and or concentration limits calculated above.

d. Settleable Solids – The previous licensing established weekly average and daily maximum concentration reporting requirements. The Department has reconsidered its position on reporting requirements versus numeric limitations. This permitting action is establishing a daily maximum concentration limit of 0.3 ml/L for settleable solids and is considered by the Department as a best professional judgment of BPT for secondary treated waste waters. This permitting action is eliminating the weekly average reporting requirement.

e. *E. coli* bacteria – The previous licensing action established seasonal monthly average and daily maximum limits of 142 colonies/100 ml and 949 colonies/100 ml, respectively, that were based on the State of Maine Water Classification Program Class C standards as established in Maine law, 38 M.R.S.A, §465(4). Due to the reclassification of the river from Class C to Class B during the term of the previous licensing action, this permitting action is establishing more stringent monthly average and daily maximum limits of 64 colonies/100 ml and 427 colonies/100 ml respectively, pursuant to Maine law, 38 M.R.S.A., §465(3). The previous licensing action imposed the bacteria limits between May 10th and September 30th of each year. This permitting action is modifying the season to the time frame of May 15th to September 30th be consistent with the time frame specified in Maine law, 38 M.R.S.A, §465(3).

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

f. Total Residual Chlorine - The previous licensing action established a daily maximum water quality based concentration limit of 0.1 mg/L. The permittee has requested the Department elimnate the daily maximum effluent limitation as they are able to comply with the monthly average and daily maximum water quality based limitations for bacteria without the use of a disinfectant. This is common for lagoon systems with long detention times. The permittee has indicated that they have not eliminated their gaseous chlorine feed system in the event disinfection becomes necessary.

The Department is denying the permittee's request to remove total residual chlorine limitations in this permitting action. Given the potential for toxicity associated with chlorine due to the low dilution factors, the imposition of limits is appropriate if disinfection becomes necessary. A footnote has been added to Special Condition A, *Effluent Limitations and Monitoring Requirements*, stating that testing for total residual chlorine is only required when elemental chlorine or chlorine based compounds are being utilized to disinfect the discharge.

Limits for total residual chlorine are specified to ensure attainment of the ambient water quality criteria (AWQC) for levels of chlorine and that the best practicable treatment technology (BPT) is utilized to abate the discharge of chlorine. The more stringent of the two limitations is established in licensing/permitting actions. Daily maximum (acute) and monthly average (chronic) end-of-pipe water quality based concentration limits for total residual chlorine may be calculated as follows:

	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Tier IA Tier IIA	19 ug/L	11 ug/L	17:1	25.0:1	0.32 mg/L	0.28 mg/L
Tier IB Tier IIB	19 ug/L	11 ug/L	9.0:1	13.0:1	0.17 mg/L	0.14 mg/L

Example calculation (Tier IA & Tier IIA): Acute – 0.019 mg/L (17.0) = 0.32 mg/L

To meet any of the water quality based thresholds calculated above, the permittee must dechlorinate the effluent prior to discharge. The Department has established a daily maximum and monthly average best practicable treatment (BPT) limitations of 0.3 mg/L and 0.1 mg/L respectively, for facilities that need to dechlorinate their effluent. If calculated water quality based limits are lower than 0.3 mg/L and or 0.1 mg/L then the more stringent water quality based limits are applicable. In the case of the GSSD, for Tier IA & Tier IIA, the calculated acute (daily maximum) water quality based threshold is higher than the BPT limit of 0.3 mg/L, thus the daily maximum BPT limitation of 0.3 mg/L is imposed. As for monthly average, the calculated chronic water quality based threshold is higher than the BPT of 0.1 mg/L thus the BPT limit of 0.1 mg/L is imposed.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

For Tier IB & Tier IIB, the calculated acute water quality based threshold is lower than the BPT limit of 0.3 mg/L, thus the daily maximum water quality based limitation of 0.17 mg/L is imposed. As for monthly average, the calculated chronic water quality based limit is higher than the BPT of 0.1 mg/L thus the BPT limit of 0.1 mg/L is imposed.

g. pH Range- The previous licensing action established a pH range limitation of 6.0 - 8.5 standard units. The limits were based on Maine Board of Environmental Protection Policy regarding the certification of NPDES permits and were considered best practicable treatment limitations. This permitting action is shifting the range limit from 6.0 – 8.5 to 6.0 –9.0 standard units pursuant to a new Department rule found at Chapter 525(3)(III)(c). The new limits are considered BPT. This permitting action is reducing the monitoring frequency from 1/Day to 5/Week based on a review of the historical test results indicating the pH range of 6.0 - 8.5 standard units has never been violated.

h. Whole Effluent Toxicity (WET) and Chemical Specific Testing Maine Law, 38 M.R.S.A., Sections 414-A and 420, prohibits the discharge of effluents containing substances in amounts which would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the EPA. Department Rules, 06-096 CMR Chapter 530.5, *Surface Water Toxics Control Program*, set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET and chemical specific (priority pollutant) testing, as required by Chapter 530.5, is included in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the waste water, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Chemical specific, or "priority pollutant (PP)," testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health water quality criteria.

The Chapter 530.5 regulation places the GSSD facility in the high frequency category for WET testing and chemical specific testing as the facility receives more than 10% of its average daily flow from sources for which federal effluent guidelines and standards have been promulgated by the USEPA and the chronic dilution factor is less than 20:1. Acute and chronic screening and surveillance level WET and chemical specific testing requirements are included in this permit.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

A recent review of GSSD's data indicates that they have fulfilled the Chapter 530.5 testing requirements to date. See Attachment B of this Fact Sheet for a summary of the WET test results and Attachment C of this Fact Sheet for a summary of the chemical specific test dates.

Department Rule Chapter 530.5 and Protocol E(1) of a document entitled *Maine Department of Environmental Protection, Toxicity Program Implementation Protocols*, dated July 1998, states that statistical evaluations shall be periodically performed on the most recent 60 months of WET and chemical specific data for a given facility to determine if water quality based limitations must be included in the permit. It is noted the statistical evaluation utilized the permitted flow of 0.465 MGD for Tier IA & Tier IIA and 0.93 MGD for Tier IB & Tier IIB and the applicable dilution factors associated with said flows.

Chapter 530.5 §C(2) states when a discharge *"...contains pollutants at levels that have a reasonable potential to cause or contribute to an ambient excursion in excess of a numeric or narrative water quality criterion, appropriate water quality based limits must be established in the permit upon issuance."*

Chapter 530.5 §C(3) also states that if data indicates that a discharge is causing an exceedence of applicable AWQC, then:*"(1) the Department must notify the licensee of the exceedence; (2) the licensee must submit a toxicity reduction evaluation (TRE) plan for review and approval within 30 days of receipt of notice and implement the TRE after Department approval; (3) the Department must modify the waste discharge license to specify effluent limits and monitoring requirements necessary to control the level of pollutant and meet receiving water classification standards within 180 days of the Department's approval of the TRE."*

1. WET Testing

Tier IA & Tier IIA – Flow of 0.465 MGD

On March 4, 2004, the Department conducted a statistical evaluation on the aforementioned tests results in accordance with the statistical approach outlined in EPA's March 1991 document entitled *Technical Support Document (TSD) for Water Quality Based Toxics Control*, Chapter 3.3.2 and Maine Department of Environmental Protection Guidance, July 1998, entitled *Toxicity Program Implementation Protocols*.

The results of the 3/4/04 WET evaluation indicates that the GSSD has two chronic no observed effect level (C-NOEL) test result of <7.7 % on 11/27/01 and <3.85 % 11/9/03 for the water flea exceed the critical chronic ambient water quality threshold of 4.0 %.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Pursuant to Chapter 530.5§C(2) and §C(3), the Department is establishing C-NOEL limit of 4.0 % for the water flea. It is noted the GSSD initiated a TRE in November 2001 for the water flea. After repeated testing, GSSD's contract laboratory had determined that issues with the test results were likely caused by biological effects rather than a chemical effect and may be seasonal in nature. The continuance of their TRE includes testing in accordance with permit requirements as a minimum, additional testing in acordance with the most recent TRE plan approved by the Department on February 9, 2004 and investigation of WET testing techniques involving pathogen destruction via ultraviolet light.

The Department establishes the testing frequency for WET or chemical specific parameters that exceed or have a reasonable potential to exceed ambient water quality thresholds/criteria taking into consideration the frequency, timing and severity of the tests results that are at issue. For the water flea, the Department has made a best professional judgment to establish a testing frequency of 2/Year given that the GSSD has and is proposing to conduct tests above and beyond the requirements in the permit as part of their TRE. Once the TRE is completed, the Department will re-evaluate the testing frequency for the water flea.

As for the remaining WET test species none of the test results in the 60-month evaluation period exceed or have a reasonable potential to exceed critical water quality thresholds. The previous licensing action established a WET testing frequency at 2/Year for the term of the license (total of 10 tests, 2 more than required by Chapter 530.5) at the request of the permittee. The permittee made this request to assist in their budgeting for testing (consistent annually), be consistent with the WET monitoring requirements of 2/Year in the NPDES permit, and believes conducting testing 2/Year rather 1/Year for thr first four years of the permit and then 1/Quarter the last year of the permit pursuant to Chapter 530.5 provides the Department with a more comprehensive check on the quality of the efflent being discharged. The Department concurs and is carrying forward the 2/Year WET testing for the term of this permit. This applies to both Tier I and Tier II.

<u>Tier IB & Tier IIB – Flow of 0.93 MGD</u>

The results of the 3/4/04 WET evaluation indicates that the GSSD has two chronic no observed effect level (C-NOEL) test result of 11.1 % on 5/15/01 and 6/22/03 for the brook trout that have a reasonable potential to exceed the critical chronic ambient water quality threshold of 7.7%. In addition, a C-NOEL test result of 11.1% on 4/02/00 for the water flea has a reasonable potential to exceed the critical chronic ambient water quality threshold of 7.7% and a C-NOEL test result of <7.7% on 11/27/01 for the water flea that exceeds the chronic ambient water quality threshold of 7.7%.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Pursuant to Chapter 530.5§C(2) and §C(3), the Department is establishing C-NOEL limits of 7.7% for the brook trout and water flea. As with Tier IA & Tier IIA, it is noted the GSSD initiated a TRE for the water flea in November 2001 and subsequently modified the scope of the TRE in a letter dated February 4, 2004. The revised TRE was approved by the Department on February 9, 2004.

The Department establishes the testing frequency for WET or chemical specific parameters that exceed or have a reasonable potential to exceed ambient water quality thresholds/criteria taking into consideration the frequency, timing and severity of the tests results that are at issue. Based on the fact that the test result of 11.1 % on 5/15/01 for the brook trout is the only test of five test results that has a reasonable potential to exceed the C-NOEL threshold of 7.7%, the Department has made a best professional judgment to maintain a surveillance level testing frequency of (1/Year).

For the water flea, the Department has made a best professional judgment to establish a testing frequency of 2/Year given that the GSSD has and is proposing to conduct tests above and beyond the requirements in the permit as part of their TRE. Once the TRE is completed, the Department will re-evaluate the testing frequency for the water flea.

2. Chemical specific testing

Tier IA & Tier IIA – Flow 0.465 MGD

The 3/4/04 statistical evaluation indicates the discharge from the GSSD facility has:

- One (1) data point that exceeds the human health criteria (water and water & organisms) AWQC for arsenic.
- One (1) data point that have a reasonable potential to exceed the chronic AWQC for lead.

Pursuant to Chapter 530.5§C(2) and §C(3), this permitting action establishes monthly average and daily maximum limits for the chemical specific parameters of concern based on the following calculations:

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Parameter	Chronic Criterion[1]	Chronic Dilution Factor	Calculated EOP[2] Chronic Con.	Month Avg. Mass Limit
Arsenic	0.018 ug/L[3]	73:1[4]	1.3 ug/L	0.005 lbs/day
Lead	0.41 ug/L	25:1	10 ug/L	0.04 lbs/day

Example Calculation:

$$\text{Arsenic - } \frac{(0.018\ \text{ug/L})(73)(8.34)(0.93\ \text{MGD})}{1000\ \text{ug/mg}} = 0.005\ \text{lbs/day}$$

Footnotes:

(1) Based on EPA's 1986 ambient water quality criteria (AWQC).
(2) End-of-pipe.
(3) Human health criteria (water and organisms).
(4) Harmonic mean dilution factor.

Concentration limits in this permitting action are based on Department rule Chapter 523, §6(f)(2) which states that pollutants limited in terms of mass additionally may be limited in terms of other units of measurement and the permit shall require the permittee to comply with both limitations.

In addition, EPA's Technical Support Document For Water Quality Based Toxics Control, March 1991, Chapter 5, Section 5.7, recommends that permit limits for both mass and concentration be specified for effluents discharging into waters with less than 100 fold dilution to ensure attainment of water quality standards. As not to penalize the GSSD facility for operating at flows less than the permitted flow of the waste water plant, the Department is establishing concentration limits based on a factor of 1.5 which is consistent with all other permitting actions by the Department. Therefore, concentration limits for arsenic and lead have been calculated to be:

Parameter	Calculated EOP Concentration	Monthly Avg. Conc. Limit	Daily Maximum Conc. Limit
Arsenic	1.3 ug/L	2.0 ug/L	---
Lead	10 ug/L	15 ug/L	---

As with WET testing, the Department establishes monitoring frequencies in permits for chemical specific parameters that exceed or have a reasonable potential to exceed acute, chronic or human health AWQC based on the timing, severity and frequency of the results of concern. A more in-depth review of the chemical specific data in Attachment C of this Fact Sheet that test results for arsenic and lead are the only test results in the GSSD's history that are above the Department's reporting limit of

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

5 ug/L and 3 ug/L respectively, As a result, the Department is establishing a surveillance level testing requirement of 1/Year for both parameters. In addition, the Department is not requiring the submission of a TRE for arsenic as the permittee has submitted four test results (equivalent to a screening level of testing) for arsenic subsequent to the 11/27/01 test result of concern that do not exceed or have a reasonable potential to exceed AWQC. The Department has deemed this additional testing constitutes a Phase I TRE.

As for the remaining chemical specific parameters tested to date, none of the test results in the 60-month evaluation period exceed or have a reasonable potential to exceed applicable acute, chronic or human health AWQC at the Tier I dilution factors. However, test results submitted to the Department indicate antimony and copper have a reasonable potential to exceed AWQC under the Tier IB & Tier IIB (0.93 MGD) regime. Therefore, the Department is establishing a "Report" only requirement for Tier IA & Tier IIA regime with a monitoring frequency of 1/Quarter. For the remaining parameters on the chemical specific list, this permitting action is establishing a 2/Year surveillance and screening level reporting and monitoring frequency for chemical specific testing for the term of the permit for the same reason cited for the WET testing.

Tier IB & Tier IIB – Flow 0.93 MGD

The 3/4/03 statistical evaluation indicates the discharge from the GSSD facility has:

- Seven (7) data points that have a reasonable potential to exceed the chronic AWQC for antimony.
- One (1) data point that exceeds the human health criteria (water and water & organisms) AWQC for arsenic.
- Three (3) data points that have a reasonable potential to exceed the chronic AWQC for copper and one (1) data point that has a reasonable potential to exceed the acute AWQC for copper.
- One (1) data point that have a reasonable potential to exceed the chronic AWQC for lead.

Pursuant to Chapter 530.5§C(2) and §C(3), this permitting action establishes monthly average and daily maximum limits for the chemical specific parameters of concern based on the following calculations:

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Acute

Parameter	Acute[1] Acute Criterion	Dilution Factor	Calculated EOP[2] Acute Con.	Month Avg. Mass Limit
Copper	3.89 ug/L	9.0:1	35 ug/L	0.27 lbs/day

Example Calculation:

$$\text{Copper - } \frac{(3.89\ \text{ug/L})(9.0)(8.34)(0.93\ \text{MGD})}{1000\ \text{ug/mg}} = 0.27\ \text{lbs/day}$$

Chronic

Parameter	Chronic[1] Criterion	Chronic Dilution Factor	Calculated EOP[2] Chronic Con.	Month Avg. Mass Limit
Antimony	30 ug/L	13.0	390 ug/L	3.0 lbs/day
Arsenic	0.018 ug/L[3]	37:1[4]	0.67 ug/L	0.005 lbs/day
Copper	2.89 ug/L	13:1	38 ug/L	0.29 lbs/day
Lead	0.41 ug/L	13:1	5 ug/L	0.04 lbs/day

Example Calculation:

$$\text{Antimony - } \frac{(30\ \text{ug/L})(13)(8.34)(0.93\ \text{MGD})}{1000\ \text{ug/mg}} = 3.0\ \text{lbs/day}$$

Footnotes:

(1) Based on EPA's 1986 ambient water quality criteria (AWQC).
(2) End-of-pipe.
(3) Human health criteria (water and organisms).
(4) Harmonic mean dilution factor.

The calculations above are correct in that the monthly average limit for copper is higher than the daily maximum limit. This anomaly occurs when the ratio between the acute and chronic AWQC (1.44) is proportional higher than the ratio between the acute and chronic dilution factors (1.3).

Concentration limits in this permitting action are based on Department rule Chapter 523, §6(f)(2) which states that pollutants limited in terms of mass additionally may be limited in terms of other units of measurement and the permit shall require the permittee to comply with both limitations.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

In addition, EPA's Technical Support Document For Water Quality Based Toxics Control, March 1991, Chapter 5, Section 5.7, recommends that permit limits for both mass and concentration be specified for effluents discharging into waters with less than 100 fold dilution to ensure attainment of water quality standards. As not to penalize the GSSD facility for operating at flows less than the permitted flow of the waste water plant, the Department is establishing concentration limits based on a factor of 1.5 which is consistent with all other permitting actions by the Department. Therefore, concentration limits for antimony, arsenic, copper and lead have been calculated to be:

Parameter	Calculated EOP Concentration	Monthly Avg. Conc. Limit	Daily Maximum Conc. Limit
Antimony	390 ug/L	585 ug/L	---
Arsenic	0.67 ug/L	1.0 ug/L	---
Copper	38 ug/L/35 ug/L	57 ug/L	52 ug/L
Lead	5 ug/L	7.5 ug/L	---

As with WET testing, the Department establishes monitoring frequencies in permits for chemical specific parameters that exceed or have a reasonable potential to exceed acute, chronic or human health AWQC based on the timing, severity and frequency of the results of concern. A more in-depth review of the chemical specific data in Attachment C of this Fact Sheet that test results for arsenic and lead are the only test results in the GSSD's history that are above the Department's reporting limit of 5 ug/L and 3 ug/L respectively, As a result, the Department is establishing a surveillance level testing requirement of 1/Year for these parameters.

Based on the fact that there are multiple test results for antimony and copper that have a reasonable potential to exceed acute and or chronic AWQC, the Department has determined that a testing frequency of 1/Quarter is appropriate for these parameters.

As for the remaining chemical specific parameters tested to date, none of the test results in the 60-month evaluation period exceed or have a reasonable potential to exceed applicable acute, chronic or human health AWQC. Therefore, this permitting action is establishing a 2/Year surveillance and screening level reporting and monitoring frequency for chemical specific testing for the term of the permit for the same reason cited for the WET testing.

It is noted the interim average and maximum limits of 25.9 ng/L and 38.7 ng/L and monitoring requirements for mercury established on 5/23/00 are not being incorporated into this permitting action but remain in effect and enforceable.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

i. Ground Water Monitoring Program - On June 9, 1986, the Department's Land Bureau issued Site Location Order #L-011197-26-A-N to the GSSD requiring a monitoring program that included quarterly sampling of surface waters in Maxfield Brook as well as five monitoring wells around the lagoons. The purpose of the program was to ensure that the newly constructed secure lagoons were not leaking and that the integrity of the surface waters and ground waters in the vicinity of the lagoons was maintained. Sampling to date indicates that the lagoon system is performing as designed.

The previous licensing action established a 1/Year monitoring program that superseded the monitoring requirements in Site Location Order #L-011197-26-A-N. The purpose of including the program in the license was to simplify and consolidate the reporting of the monitoring program information. The Department is carrying forward the ground water monitoring program forward in this permitting action.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

The effluent limitations in this permit are equal to or more stringent than the limits in the previous license and/or effective NPDES permit with the exception of the pH range limitation. The Department has made a best professional judgment determination that as licensed, the discharge will not cause or contribute the failure of the receiving water to meet the standards of its ascribed classification and the designated uses of the river will continue to be maintained and protected. If future modeling runs determine that at full permitted discharge limits, the licensee discharge is causing or contributing to the non-attainment, this permit will be re-opened per Special Condition L, *Reopening of The License For Modifications*, to impose more stringent limitations to meet water quality standards.

8. PUBLIC COMMENTS

Public notice of this application was made in the Bangor Daily News newspaper on or about June 29, 2002. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft license shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

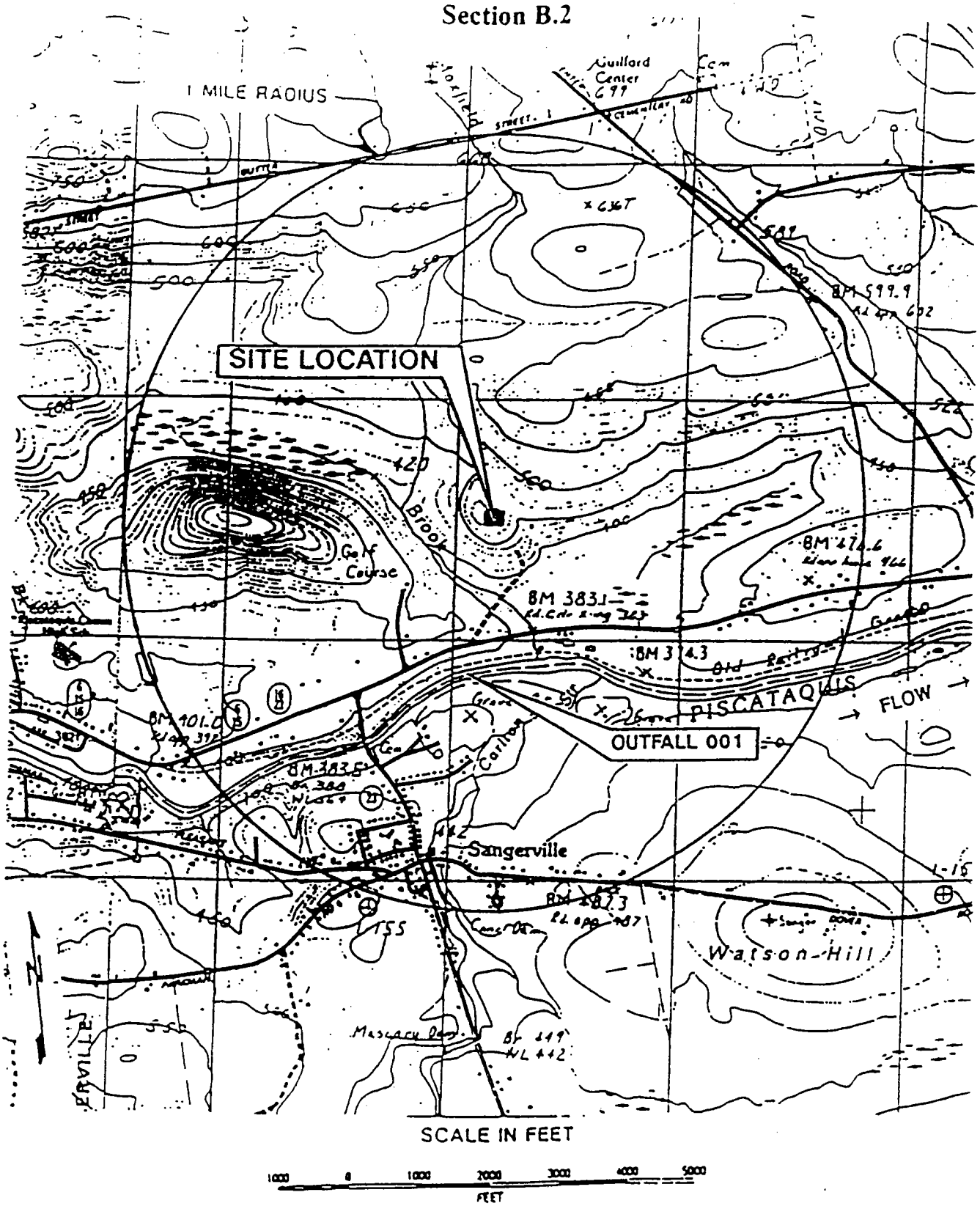
Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Resource Regulation
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone (207) 287-7693
e-mail: gregg.wood@maine.gov

10. RESPONSE TO COMMENTS

During the period of July 8, 2004, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the GSSD facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

Attachment A
NPDES Form 2A
Section B.2



Information Shown is from the Sangerville and Guilford, Maine Quadrangle Maps 7.5 Minute Series

Latitude 45° 10' 36" N

Guilford-Sangerville Sanitary District
Guilford, Maine
Site Location Plan

East Coast
Environmental Service
44 Somerset Avenue, Pittsfield, Maine 04967

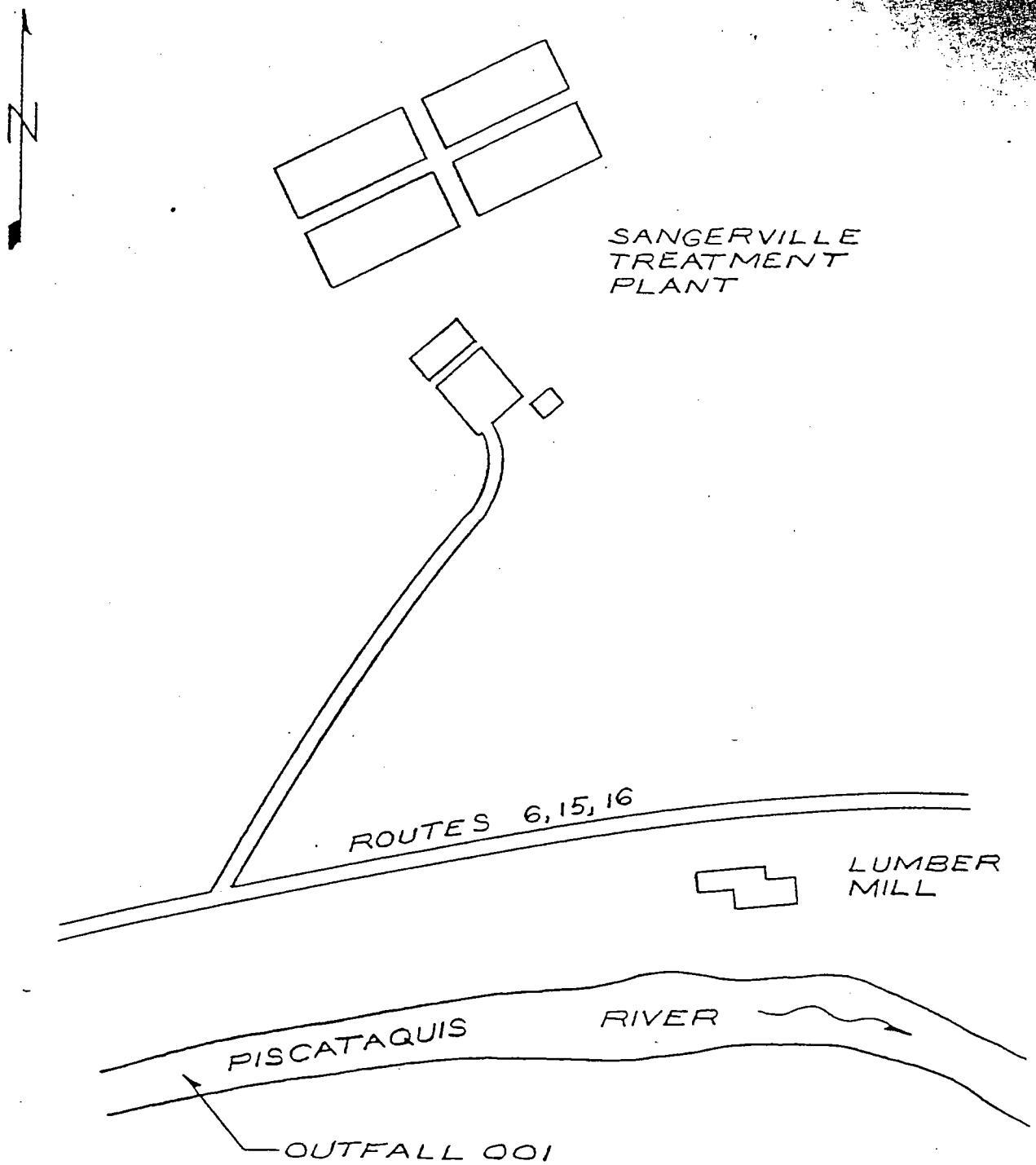


FIGURE 1

0 400 800

SCALE IN FEET

G.S.S.D.
GUILFORD, MAINE

SITE PLAN

ACHERON ENGINEERING SERVICES
40 Main Street
Newport, Maine 04953

Job No. 2736 | Dwg. No. A-560

ATTACHMENT A

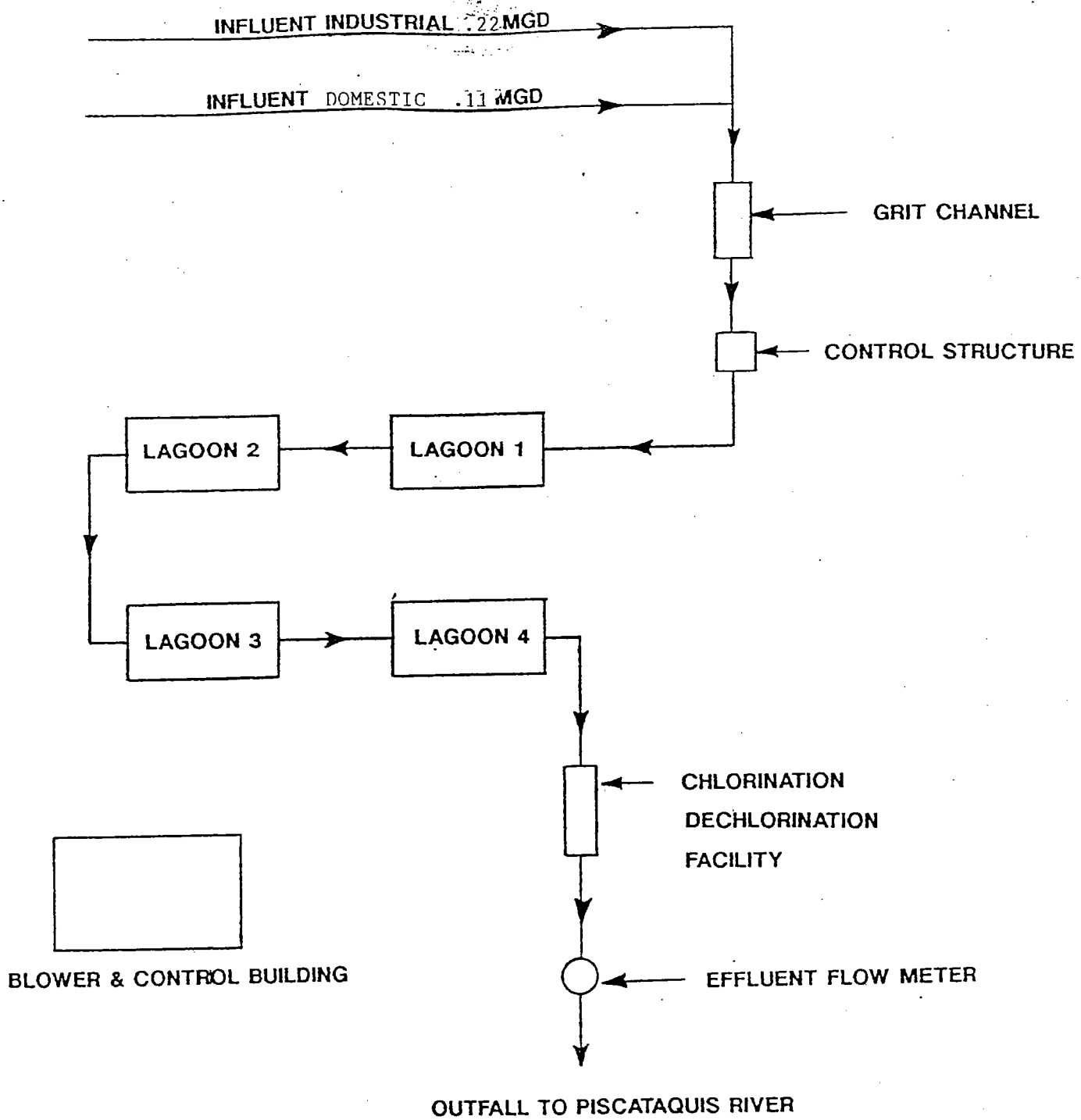


FIGURE 2

	G.S.S.D. GUILFORD, MAINE
	FLOW DIAGRAM G.S.S.D. TREATMENT PLANT
	ACHERON ENGINEERING SERVICES 40 Main Street Newport, Maine 04953
	Job No. 2736 — Dwg. No. A-568

ATTACHMENT B

GUILFORD/SANGERVILLE
PISCATAQUIS RIVER

Flow: 0.9 MGD
Chronic dilution: 13.0:1
Acute dilution: 9.0:1

Species	Test	Test Result %	Sample Date
FATHEAD	A_NOEL	100	11/21/1991
FATHEAD	C_NOEL	100	11/21/1991
FATHEAD	LC50	>100	11/21/1991
WATER FLEA	A_NOEL	100	11/21/1991
WATER FLEA	C_NOEL	50.00	11/21/1991
WATER FLEA	LC50	>100	11/21/1991
TROUT	A_NOEL	100	02/06/1992
TROUT	C_NOEL	25	02/06/1992
TROUT	LC50	>100	02/06/1992
WATER FLEA	A_NOEL	100	02/06/1992
WATER FLEA	C_NOEL	25	02/06/1992
WATER FLEA	LC50	>100	02/06/1992
FATHEAD	A_NOEL	100	04/30/1992
FATHEAD	C_NOEL	25	04/30/1992
FATHEAD	LC50	>100	04/30/1992
WATER FLEA	A_NOEL	50	04/30/1992
WATER FLEA	C_NOEL	25	04/30/1992
WATER FLEA	LC50	>100	04/30/1992
TROUT	A_NOEL	100	08/27/1992
TROUT	C_NOEL	100	08/27/1992
TROUT	LC50	>100	08/27/1992
WATER FLEA	A_NOEL	100	08/27/1992
WATER FLEA	C_NOEL	100	08/27/1992
WATER FLEA	LC50	>100	08/27/1992
FATHEAD	A_NOEL	100	10/29/1992
FATHEAD	C_NOEL	100	10/29/1992
FATHEAD	LC50	>100	10/29/1992
WATER FLEA	A_NOEL	100.00	10/29/1992
WATER FLEA	C_NOEL	100.00	10/29/1992
WATER FLEA	LC50	>100	10/29/1992
TROUT	A_NOEL	100	02/11/1993
TROUT	C_NOEL	25	02/11/1993
TROUT	LC50	>100	02/11/1993
WATER FLEA	A_NOEL	100	02/11/1993
WATER FLEA	C_NOEL	50	02/11/1993
WATER FLEA	LC50	>100	02/11/1993
FATHEAD	A_NOEL	100	05/13/1993
FATHEAD	C_NOEL	50	05/13/1993
FATHEAD	LC50	>100	05/13/1993
WATER FLEA	A_NOEL	100	05/13/1993
WATER FLEA	C_NOEL	25	05/13/1993

Species	Test	Test Result %	Sample Date
WATER FLEA	LC50	>100	05/13/1993
TROUT	A_NOEL	100	08/19/1993
TROUT	C_NOEL	100	08/19/1993
TROUT	LC50	>100	08/19/1993
WATER FLEA	A_NOEL	100	08/19/1993
WATER FLEA	C_NOEL	100	08/19/1993
WATER FLEA	LC50	>100	08/19/1993
FATHEAD	A_NOEL	100	10/28/1993
FATHEAD	C_NOEL	100	10/28/1993
FATHEAD	LC50	>100	10/28/1993
WATER FLEA	A_NOEL	100	10/28/1993
WATER FLEA	C_NOEL	100	10/28/1993
WATER FLEA	LC50	>100	10/28/1993
TROUT	A_NOEL	100	05/03/1994
TROUT	C_NOEL	50	05/03/1994
TROUT	LC50	>100	05/03/1994
WATER FLEA	A_NOEL	100	05/03/1994
WATER FLEA	C_NOEL	25	05/03/1994
WATER FLEA	LC50	100	05/03/1994
FATHEAD	A_NOEL	100	11/01/1994
FATHEAD	C_NOEL	100	11/01/1994
FATHEAD	LC50	>100	11/01/1994
WATER FLEA	A_NOEL	100	11/01/1994
WATER FLEA	C_NOEL	50	11/01/1994
WATER FLEA	LC50	>100	11/01/1994
TROUT	A_NOEL	100	05/01/1995
TROUT	C_NOEL	25	05/01/1995
TROUT	LC50	>100	05/01/1995
WATER FLEA	A_NOEL	100	05/01/1995
WATER FLEA	C_NOEL	50	05/01/1995
WATER FLEA	LC50	>100	05/01/1995
FATHEAD	A_NOEL	100	11/02/1995
FATHEAD	C_NOEL	100	11/02/1995
FATHEAD	LC50	>100	11/02/1995
WATER FLEA	A_NOEL	100	11/02/1995
WATER FLEA	C_NOEL	100	11/02/1995
WATER FLEA	LC50	>100	11/02/1995
TROUT	A_NOEL	100	04/30/1996
TROUT	C_NOEL	15	04/30/1996
TROUT	LC50	>100	04/30/1996
WATER FLEA	A_NOEL	100	04/30/1996

Species	Test	Test Result %	Sample Date
WATER FLEA	C_NOEL	25	04/30/1996
WATER FLEA	LC50	>100	04/30/1996
FATHEAD	A_NOEL	100	10/31/1996
FATHEAD	C_NOEL	100	10/31/1996
FATHEAD	LC50	>100	10/31/1996
WATER FLEA	A_NOEL	100	10/31/1996
WATER FLEA	C_NOEL	100	10/31/1996
WATER FLEA	LC50	>100	10/31/1996
TROUT	A_NOEL	100	05/29/1997
TROUT	C_NOEL	50	05/29/1997
TROUT	LC50	>100	05/29/1997
WATER FLEA	A_NOEL	100	05/29/1997
WATER FLEA	C_NOEL	50	05/29/1997
WATER FLEA	LC50	>100	05/29/1997
FATHEAD	A_NOEL	100	11/11/1997
FATHEAD	C_NOEL	50	11/11/1997
FATHEAD	LC50	>100	11/11/1997
WATER FLEA	A_NOEL	100	11/11/1997
WATER FLEA	C_NOEL	100	11/11/1997
WATER FLEA	LC50	>100	11/11/1997
TROUT	A_NOEL	100	05/26/1998
TROUT	C_NOEL	100	05/26/1998
TROUT	LC50	>100	05/26/1998
WATER FLEA	A_NOEL	100	05/26/1998
WATER FLEA	C_NOEL	100	05/26/1998
WATER FLEA	LC50	>100	05/26/1998
FATHEAD	A_NOEL	100	10/20/1998
FATHEAD	C_NOEL	100	10/20/1998
FATHEAD	LC50	>100	10/20/1998
WATER FLEA	A_NOEL	100	10/20/1998
WATER FLEA	C_NOEL	50	10/20/1998
WATER FLEA	LC50	>100	10/20/1998
TROUT	A_NOEL	100	04/27/1999
TROUT	C_NOEL	100	04/27/1999
TROUT	LC50	>100	04/27/1999
WATER FLEA	A_NOEL	100	04/27/1999
WATER FLEA	C_NOEL	25	04/27/1999
WATER FLEA	LC50	>100	04/27/1999
FATHEAD	A_NOEL	100	11/16/1999
FATHEAD	C_NOEL	100	11/16/1999
FATHEAD	LC50	>100	11/16/1999

Species	Test	Test Result %	Sample Date
WATER FLEA	A_NOEL	100	11/16/1999
WATER FLEA	C_NOEL	100	11/16/1999
WATER FLEA	LC50	>100	11/16/1999
TROUT	A_NOEL	100	04/02/2000
TROUT	C_NOEL	25	04/02/2000
TROUT	LC50	>100	04/02/2000
WATER FLEA	A_NOEL	100	04/02/2000
WATER FLEA	C_NOEL	11.1	04/02/2000
WATER FLEA	LC50	>100	04/02/2000
TROUT	A_NOEL	100	11/28/2000
TROUT	C_NOEL	100	11/28/2000
TROUT	LC50	>100	11/28/2000
WATER FLEA	A_NOEL	100	11/28/2000
WATER FLEA	C_NOEL	50	11/28/2000
WATER FLEA	LC50	>100	11/28/2000
TROUT	A_NOEL	100	05/15/2001
TROUT	C_NOEL	11.1	05/15/2001
TROUT	LC50	>100	05/15/2001
WATER FLEA	A_NOEL	100	05/15/2001
WATER FLEA	C_NOEL	25	05/15/2001
WATER FLEA	LC50	>100	05/15/2001
FATHEAD	A_NOEL	100	11/27/2001
FATHEAD	C_NOEL	100	11/27/2001
FATHEAD	LC50	>100	11/27/2001
WATER FLEA	A_NOEL	100	11/27/2001
WATER FLEA	C_NOEL	<7.7	11/27/2001
WATER FLEA	LC50	>100	11/27/2001
WATER FLEA	A_NOEL	100	05/07/2002
WATER FLEA	C_NOEL	50	05/07/2002
WATER FLEA	LC50	>100	05/07/2002
TROUT	A_NOEL	100	06/11/2002
TROUT	C_NOEL	100	06/11/2002
TROUT	LC50	>100	06/11/2002
WATER FLEA	A_NOEL	100	06/11/2002
WATER FLEA	C_NOEL	100	06/11/2002
WATER FLEA	LC50	>100	06/11/2002
TROUT	A_NOEL	50	06/22/2003
TROUT	C_NOEL	11.1	06/22/2003
TROUT	LC50	50	06/22/2003
WATER FLEA	A_NOEL	50	06/22/2003
WATER FLEA	C_NOEL	50	06/22/2003

Species	Test	Test Result %	Sample Date
WATER FLEA	LC50	50	06/22/2003
FATHEAD	A_NOEL	50	11/09/2003
FATHEAD	C_NOEL	50	11/09/2003
FATHEAD	LC50	>50	11/09/2003
WATER FLEA	A_NOEL	50	11/09/2003
WATER FLEA	C_NOEL	<3.85	11/09/2003
WATER FLEA	LC50	>50	11/09/2003

ATTACHMENT C

Sample Date: 05/26/1998
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD)= 0.320
day(MGD)= 0.153

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 10/20/1998
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD)= 0.331
day(MGD)= 0.356

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 04/27/1999
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD)= 0.327
day(MGD)= 0.362

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 11/16/1999
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD)= 0.290
day(MGD)= 0.327

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 04/02/2000
Plant flows provided

Total Tests: 135
Missing Compounds: 1
Tests With High DL: 0

mon.(MGD)= 0.414
day(MGD)= 0.211

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 11/28/2000
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD)= 0.293
day(MGD)= 0.351

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 05/15/2001
Plant flows provided

Total Tests: 135
Missing Compounds: 1
Tests With High DL: 0

mon.(MGD)= 0.292
day(MGD)= 0.290

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 11/27/2001
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD)= 0.220
day(MGD)= 0.345

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 06/11/2002
Plant flows provided

Total Tests: 136
Missing Compounds: 0
Tests With High DL: 0

mon.(MGD)= 0.323
day(MGD)= 0.447

M = 0 V = 0 A = 0
BN = 0 P = 0 other = 0

Sample Date: 09/04/2002
Plant flows not provided

Total Tests: 20

Tests With High DL: 1

M = 0 V = 0 A = 0
BN = 0 P = 1 other = 0

Sample Date: 11/17/2002
Plant flows provided

Total Tests:	124	mon.(MGD)= 0.243
Missing Compounds:	0	day(MGD)= 0.313
Tests With High DL:	0	

M = 0 V = 0 A = 0

BN = 0 P = 0 other = 0

Sample Date: 06/22/2003
Plant flows provided

Total Tests:	136	mon.(MGD)= 0.289
Missing Compounds:	0	day(MGD)= 0.181
Tests With High DL:	0	

M = 0 V = 0 A = 0

BN = 0 P = 0 other = 0

PP Data for "Hits" Only

GUILFORD/SANGERVILLE
PISCATAQUIS RIVER

4,4'-DDT
MDL = 0.05 ug/l

	Conc, ug/l	MDL	Sample Date	Date Entered
	0.060000	OK	11/17/2002	03/17/2003
	0.110000	OK	06/11/2002	12/27/2002
<	0.040000	OK	09/04/2002	11/04/2002
<	0.050000	OK	05/26/1998	07/30/1998
<	0.050000	OK	10/20/1998	12/29/1998
<	0.050000	OK	04/27/1999	08/11/1999
<	0.050000	OK	11/16/1999	02/02/2000
<	0.050000	OK	04/02/2000	08/16/2000
<	0.050000	OK	11/28/2000	01/29/2001
<	0.050000	OK	05/15/2001	07/25/2001
<	0.050000	OK	11/27/2001	02/07/2002
<	0.050000	OK	06/22/2003	08/14/2003

AMMONIA
No MDL

Conc, ug/l	MDL	Sample Date	Date Entered
90.000000	NS	10/20/1998	12/29/1998
90.000000	NS	11/28/2000	05/08/2001
120.000000	NS	11/16/1999	02/01/2000
120.000000	NS	05/15/2001	10/19/2001
120.000000	NS	06/11/2002	04/08/2003
140.000000	NS	05/26/1998	12/22/1998
150.000000	NS	11/27/2001	03/22/2002
600.000000	NS	06/22/2003	08/28/2003
6800.00000	NS	04/02/2000	08/02/2000
8900.00000	NS	04/27/1999	08/18/1999

ANTIMONY
MDL = 5 ug/l

Conc, ug/l	MDL	Sample Date	Date Entered
270.000000	OK	04/27/1999	08/11/1999
280.000000	OK	05/15/2001	07/25/2001
300.000000	OK	05/26/1998	07/30/1998
300.000000	OK	11/28/2000	01/29/2001
330.000000	OK	04/02/2000	08/16/2000
360.000000	OK	11/16/1999	02/02/2000
370.000000	OK	10/20/1998	12/29/1998
375.000000	OK	06/11/2002	12/27/2002
390.000000	OK	06/22/2003	08/14/2003
400.000000	OK	10/15/2002	12/12/2002
410.000000	OK	11/27/2001	02/07/2002
440.000000	OK	07/29/1998	09/21/1998
450.000000	OK	02/11/1998	09/21/1998
460.000000	OK	11/17/2002	03/17/2003

PP Data for "Hits" Only

GUILFORD/SANGERVILLE

PISCATAQUIS RIVER

ARSENIC
MDL = 5 ug/l

	Conc, ug/l	MDL	Sample Date	Date Entered
	1.000000	OK	06/11/2002	12/27/2002
	1.000000	OK	11/17/2002	03/17/2003
	2.000000	OK	05/15/2001	07/25/2001
	4.000000	OK	11/28/2000	04/30/2002
	6.000000	OK	11/27/2001	02/07/2002
<	1.000000	OK	04/02/2000	08/16/2000
<	1.000000	OK	06/22/2003	08/14/2003
<	5.000000	OK	05/26/1998	07/30/1998
<	5.000000	OK	10/20/1998	12/29/1998
<	5.000000	OK	04/27/1999	08/11/1999
<	5.000000	OK	11/16/1999	02/02/2000

COPPER
MDL = 3 ug/l

	Conc, ug/l	MDL	Sample Date	Date Entered
	16.000000	OK	06/22/2003	08/14/2003
	19.000000	OK	11/28/2000	01/29/2001
	20.000000	OK	07/29/1998	09/21/1998
	20.000000	OK	10/15/2002	12/12/2002
	22.000000	OK	11/27/2001	02/07/2002
	24.000000	OK	04/02/2000	08/02/2000
	25.000000	OK	05/15/2001	07/25/2001
	25.000000	OK	11/17/2002	03/17/2003
	26.000000	OK	11/16/1999	02/01/2000
	27.000000	OK	06/11/2002	12/27/2002
	29.000000	OK	10/20/1998	12/29/1998
	33.000000	OK	02/11/1998	09/21/1998
	35.000000	OK	05/26/1998	07/30/1998
	46.000000	OK	04/27/1999	08/11/1999

LEAD
MDL = 3 ug/l

	Conc, ug/l	MDL	Sample Date	Date Entered
	3.000000	OK	11/16/1999	02/01/2000
	3.000000	OK	05/15/2001	07/25/2001
	4.000000	OK	06/11/2002	12/27/2002
	4.000000	OK	11/17/2002	03/17/2003
<	1.000000	OK	06/22/2003	08/14/2003
<	3.000000	OK	05/26/1998	07/30/1998
<	3.000000	OK	10/20/1998	12/29/1998
<	3.000000	OK	04/27/1999	08/11/1999
<	3.000000	OK	04/02/2000	08/02/2000
<	3.000000	OK	11/28/2000	01/29/2001
<	3.000000	OK	11/27/2001	02/07/2002

PP Data for "Hits" Only

GUILFORD/SANGERVILLE

PISCATAQUIS RIVER

MERCURY

MDL = .001 ug/l

Conc, ug/l	MDL	Sample Date	Date Entered
0.003100	OK	10/22/1998	03/22/1999
0.005600	OK	11/17/2002	03/17/2003
0.006100	OK	01/23/2002	03/14/2002
0.006100	OK	09/10/2002	01/06/2003
0.006200	OK	11/28/2000	01/29/2001
0.006600	OK	06/23/2003	08/19/2003
0.007760	OK	08/21/2000	12/07/2000
0.007950	OK	05/16/2001	07/19/2001
0.008200	OK	03/04/2003	06/02/2003
0.009200	OK	06/11/2002	12/27/2002
0.009590	OK	04/03/2000	12/07/2000
0.012700	OK	08/22/2001	11/07/2001
0.012900	OK	11/27/2001	02/07/2002
0.014300	OK	01/21/1999	07/23/1999
0.014400	OK	11/16/1999	02/02/2000
0.014900	OK	05/26/1998	07/30/1998
0.023400	OK	10/20/1998	12/29/1998
0.033600	OK	04/27/1999	07/23/1999
6.600000	OK	06/22/2003	08/14/2003

SULFIDE

No MDL

Conc, ug/l	MDL	Sample Date	Date Entered
200.000000	NS	10/15/2002	12/12/2002