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April 11, 1974

State of Washington
Department of Ecology

Memo to: John Arnquist

From: Darrel Anderson

Subject: Nespelem Lagoons.

On March 20, 1974, I attempted to make contact with Mr. Lambert, operator of the sewage lagoons for the City of Nespelem, Washington. Since Mr. Lambert was not in town, I went to the lagoons, scaled the security fence and took the following effluent grab samples: two bacteria samples, one 2 ml composite sample and one nutrient sample.

By conferring with a local citizen, I found that about 150 people use the lagoons and no chlorine is used for disinfection.

There was no visual deterioration of the dikes and no vegetation growing in them. The water level did seem quite low at the second pond.

Fecal coliform from one sample is 250/100 mls.

DA:jmh

STP Survey Report Form

Efficiency Study

City Nespelem Plant Type Lagoon Pop. Served 150 Design Capacity unknown

Receiving Water Nespelem Creek Perennial _____ Intermittent _____

Date 3-20-74 Survey Period 1100 hrs. Survey Personnel ~~D. Anderson~~

Comp. Sampling Frequency Grab at Eff. Sampling Alequot —

Weather Conditions (24 hr) Clear-warm Are facilities provided for complete by-pass of raw sewage? ____ Yes X No/Frequency of bypass —

Reason for bypass — Is bypass chlorinated? — Yes — No

Was DOE Notified? — Discharge - Intermittent _____ Continuous ✓

Plant Operation - NO FLOW DEVICE AVAILABLE.

Total flow Unknown How measured —

Maximum flow — Time of Max. —

Minimum flow — Time of Min. —

Pre Cl_2 No Cl_2 added #/day Post Cl_2 No Cl_2 added #/day

Field Results --- No field data taken.

	Influent				Effluent			
Determinations	Max.	Min.	Mean	Median	Max.	Min.	Mean	Median
Temp °C								
pH (Units)								
Conductivity (µmhos/cm^2)								
Settleable Solids (mls/l)								

Laboratory Results on Composites

	Influent	Effluent	% Reduction
Laboratory No.		74-883	
5-Day BOD ppm		35	
COD ppm		94	
T.S. ppm		324	
T.N.V.S. ppm		195	
T.S.S. ppm		100	
N.V.S.S. ppm		None Det.	
pH (Units)		8.5	
Conductivity (µmhos/cm^2)		510	
Turbidity (JTU's)		12	

Laboratory Bacteriological Results

Lab No.	Sampling Time	Colonies/100 ml (MF) Total Coliform	Fecal Coliform	Fecal Strep	Cl_2 Residual
74-883	1130	3200	250		No Cl_2
884	1130	2900	170*		

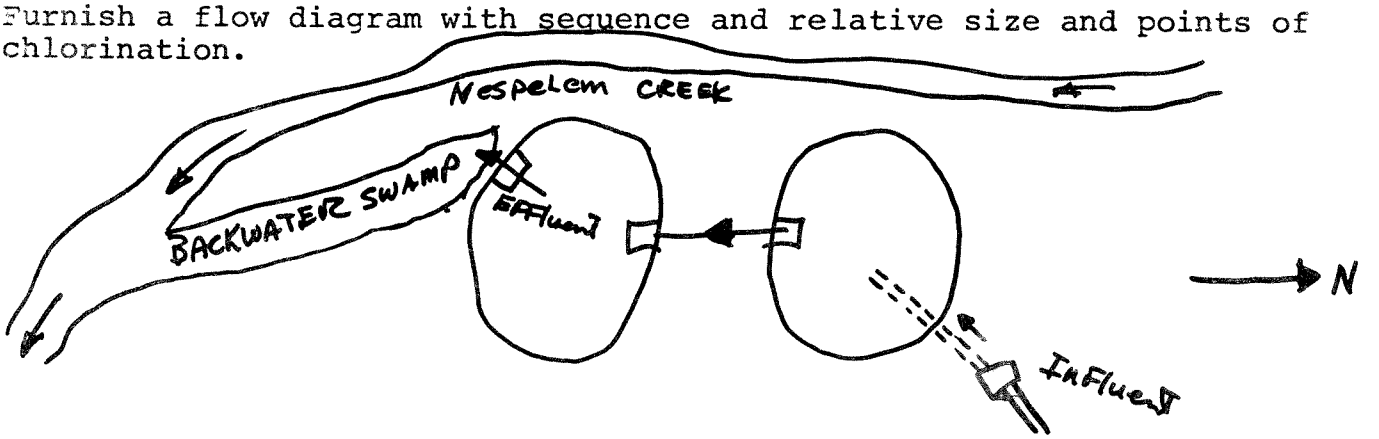
*Estimated

Additional Laboratory Results

NO_3-N ppm -	
NO_2-N ppm -	
NH_3-N ppm -	
T. Kjeldahl-N ppm -	
O-PO_4-P ppm -	
T-PO_4-P ppm -	

Operator's Name Mr. Lambert Phone No. _____

Furnish a flow diagram with sequence and relative size and points of chlorination.



Type of Collection System

__ Combined ✓ Separate __ Both

Estimate flow contributed by surface or ground water (infiltration)

unk MGD

Plant Loading Information — unk.

Annual average daily flow rate(mgd)

Dry _____

Wet _____

Peak flow rate(mgd)

Dry _____

Wet _____

COMMENTS: _____

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO: ANDERSON

COPIES TO:

LAB FILES

DATA SUMMARY

Source NESPELEM STP

Collected By D. ANDERSON

Date Collected 3/20/74

Goal, Pro./Obj.

Log Number:	74 883	884									STORET
Station:	1130 EFF	1130 EFF									
pH	8.5										00403
Turbidity (JTU)	12										00070
Conductivity (umhos/cm)@25°C	510										00095
COD	94										00340
BOD (5 day)	35										00310
Total Coliform (Col./100ml)	3200	2900									31504
Fecal Coliform (Col./100ml)	250	170*									31616
NO3-N (Filtered)	21.5										00620
NO2-N (Filtered)	.03										00615
NH3-N (Unfiltered)	6.0										00610
T. Kjeldahl-N (Unfiltered)	9.3										00625
O-PO4-P (Filtered)	4.15										00671
Total Phos.-P (Unfiltered)	6.00										00665
Total Solids	324										00500
Total Non Vol. Solids	195										
Total Suspended Solids	100										00530
Total Sus. Non Vol. Solids	ND										

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM **X** 10^3) prior to entry into STORET

*ESTIMATED

Summary By Mary Lou Coombs Date 4/4/74