

August 15, 1974

Memo to: Rhys Sterling and Howard Bunten

From: Shirley Prescott *SP*

Subject: Albion Lagoons Efficiency Survey

State of
Washington
Department
of Ecology



Albion lagoons were scheduled for an efficiency study on May 1, 1974. Scott Jeane checked with the operator, Mr. Smith, and arranged to have the area open for us.

The area was fenced and the gate had been left unlocked for us. The chlorinator housing appeared to be fairly new as well as the automatic chlorinator. The water level was above the liner and there was some grass and weed growth in the ponds.

Only one cell was in operation at this time and we felt that an extended survey was not practical so only a grab sample of the effluent was taken. The lab results are attached. The chlorine residual showed .5 in 30 seconds and 1.0 in 3 minutes.

SP:jmh

STP Survey Report Form

Efficiency Study

City Albion Plant Type Lagoon Pop. Served 650 Design ---

Receiving Water Unknown Stream Perennial _____ Intermittent X
Capacity

Date 5/1/74 Survey Period Grab sample taken Survey Personnel S. Jeane - S. Prescott

Comp. Sampling Frequency ----- Sampling Alequot _____

Weather Conditions (24 hr) _____ Are facilities provided for complete by-pass of raw sewage? Yes _____ No/Frequency of bypass _____

Reason for bypass _____ Is bypass chlorinated? Yes _____ No

Was DOE Notified? _____ Discharge - Intermittent _____ Continuous _____

Plant Operation

Total flow _____ How measured _____

Maximum flow _____ Time of Max. _____

Minimum flow _____ Time of Min. _____

Pre Cl₂ _____ #/day Post Cl₂ _____ #/day

Field Results

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.	<u>_____</u>	<u>74-1442</u>	
5-Day BOD ppm	<u>_____</u>	<u>20</u>	<u>_____</u>
COD ppm	<u>_____</u>	<u>130</u>	<u>_____</u>
T.S. ppm	<u>_____</u>	<u>389</u>	<u>_____</u>
T.N.V.S. ppm	<u>_____</u>	<u>244</u>	<u>_____</u>
T.S.S. ppm	<u>_____</u>	<u>12</u>	<u>_____</u>
N.V.S.S. ppm	<u>_____</u>	<u>2</u>	<u>_____</u>
pH (Units)	<u>_____</u>	<u>7.6</u>	<u>_____</u>
Conductivity (µmhos/cm ²)	<u>_____</u>	<u>660</u>	<u>_____</u>
Turbidity (JTU's)	<u>_____</u>	<u>20</u>	<u>_____</u>
Chlorides	<u>_____</u>	<u>21</u>	<u>_____</u>

Laboratory Bacteriological Results

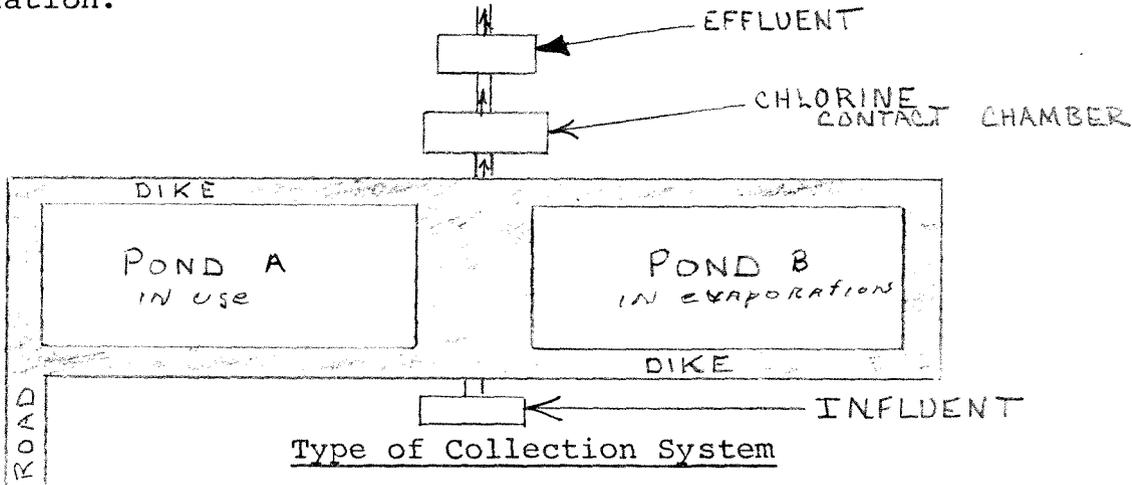
Lab No.	Sampling Time	Colonies/100 ml (MF)			Cl ₂ Residual	
		Total Coliform	Fecal Coliform	Fecal Strep	30"	3 min
Grab Sample	0830				.5	1.0

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. Smith Phone No. _____

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



Combined Separate Both

Estimate flow contributed by surface or ground water (infiltration)

_____ MGD

Plant Loading Information

Annual average daily flow rate (mgd)

Peak flow rate (mgd)

Dry _____

Dry _____

Wet _____

Wet _____

COMMENTS: _____

