

TO: Tom McCann, Ron Pine, Ron Devitt
and Files

FROM: Jim Armstrong

SUBJECT: San Juan Island Cannery Efficiency Study

DATE: September 6, 1973

State of
Washington
Department of
Ecology



On Thursday, August 16, 1973, an efficiency survey was conducted at San Juan Island Cannery in LaConnor, WA. The survey lasted from 1000 hours to 1800 hours. Samples were taken every half hour.

The total flow for the period beginning at 0600 hours 8/16 thru 0600 hours 8/17 was 137,100 cu. ft. or 1,025,508 gallons. The flow from the effluent alone from 0930 hours thru 1800 hours was 341,858 gallons.

The total raw products processed was 348,905 pounds of peas and carrots. The products produced included the following:

Type of cans	Number of cans	Pounds of product
8 oz.	119,520	41,085
#303	374,808	269,393
gallon	3,240	15,188
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-260 cases left for next shift	497,568 cans -6,240	325,666 pounds -4,485
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Total	491,328 cans	321,181 pounds

348,905 pounds of raw product
-321,181 pounds of canned

27,724 pounds of waste
-27,300 pounds hauled to garbage

424 pounds unaccounted for

The temperature of the seawater used for cooling was 24.8°. The freshwater effluent pump for overflow was 42°. The effluent from the retort drain was 32.4°.

The cannery employs 125 people for a total of 1250 gallons of water for sewage at 10 gallons per person.

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At times during the day, the blancher overflows into the effluent and causes the conductivity to go up drastically.

All floor drains should run through the effluent screens as there is a large amount of solid material being washed from under the building and into the channel.

JA:jmh

STP SURVEY REPORT FORM

(EFFICIENCY STUDY)

San Juan

City LaConnor Plant Type Is. Cannery Population Served Design CapacityReceiving Water Swinomish Channel Engineer _____Date August 16, 1973 Survey Period 1000-1800 hrs. Survey Personnel ArmstrongComp. Sampling Frequency Every half hr. Weather Conditions Overcast, rain
(last 48 hours)

Sampling Alequot _____

PLANT OPERATION

Total Flow 0600 8/16 - 0600 8/17 1,025,508 How Measured City meter
gals.

Max. (Flow) _____ Time of Max. _____ Min. _____ Time of Min. _____

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

FIELD RESULTS

Influent

Effluent

Determinations	Influent				Effluent			
	Max.	Min.	Mean	Median	Max.	Min.	Mean	Median
Temp. °C	21.6	15.6	19.6	20	23.6	16	19.3	19.6
pH	7.8	5.2		6.6	6.7	5.6		6.4
Conductivity (umhos/cm)	off meter			2250	17000	800		2625
Settleable Solids	15	10	11.6	10	1.0	.5	.7	.7

LABORATORY RESULTS ON COMPOSITE IN PPM

Laboratory Number	Influent	Effluent	% Reduction
5-Day BOD	1250	1020	18
COD	2350	1770	25
T.S.	5193	3486	33
T.N.V.S.	3761	2287	39
T.S.S.	360	293	19
N.V.S.S.	104	99	5
pH	5.2	5.6	
Conductivity	7700	5100	
Turbidity	80	80	0

