

April 9, 1974

WA-57-1010

Memo to: Rhys Sterling, Howard Buntun

From: Pat Lee

Subject: Columbia Lighting, Spokane Industrial Park.

State of
Washington
DEPARTMENT OF
Ecology



An effluent characterization study was run on Columbia Lighting at the Spokane Industrial Park on January 29, 1974. The effluent from the plant was composited every half hour for eight hours, 0800 hours to 1600 hours. Field tests were run every half hour and are summarized below:

PLANT OPERATION

Total Flow - .042 Million Gallons in 8 hrs. How measured-
Parshall Flume

Max. Flow - .140 MGD Time of Max. Almost all day Min. - .076 MGD

Time of Min. - 1600 hours Pre Cl₂ ---- Post Cl₂ ----

FIELD RESULTS

17 determinations

	Effluent			
	Max.	Min.	Mean	Median
Temp °C	23	15	----	19
pH	9.6	8.4	----	9.0
Conductivity (umhos/cm)	1700	450	----	650
Settleable Solids	nil	nil	nil	nil

The lab results on the composite and the grabs for oils and coliform are as follows:

pH	9.2
Turbidity (JTU)	60
Conductivity (umhos/cm)	560
COD	35
BOD (5 day)	<16
T. Coliform (Col/100m)	>40,000
F. Coliform (Col/100m)	---
NO ₃ -N (Filt)	1.0
NO ₂ -N (Filt)	.04
NH ₃ -N (Unfilt)	.2
T.Kjeldahl-N (Unfilt)	.5

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O-PO ₄ -P (Filt)	.06
T. Phos.-P (Unfilt)	1.0
Total Solids	416
T. Non Vol. Solids	283
T. Suspended Solids	70
T. Sus. Non Vol. Solids	55
Chromium	None Detected
Copper	<0.1
Phenols	.006
Total Oils (@ 0930 hr)	4
Total Oils (@ 1430 hr)	4

As can be seen, there was nothing surprising in the results. The operator at the Spokane Industrial Park, which treats the wastes from Columbia Lighting, suspects that the occasional batches of oil which come through the plant are from Columbia Lighting but none were evident in their effluent during our 8 hour survey.

PL:jmh

