

August 27, 1974

State of
Washington
Department
of Ecology



Memo to: Ron Robinson

From: Mike Tomlinson

Subject: McKenna Home for the Aged

A rather primitive set-up but watched closely by Ron Whitman. Normally the Cl_2 residual is around 1.0 ppm. The settling (holding) tanks work well as the effluent was quite clear.

MT:jmh

STP Survey Report Form

Efficiency Study

McKenna Home
 City for the Aged Plant Type ----- Pop. Served 100 - 140 Design ?
 Receiving Water Nisqually River Perennial X Intermittent Capacity
 Date 7/24/74 Survey Period Grab (1015) Survey Personnel Tomlinson, Lindskog
 Comp. Sampling Frequency NA Sampling Alequot -----
 Weather Conditions (24 hr) ----- Are facilities provided for complete by-
 pass of raw sewage? Yes X No/Frequency of bypass NA
 Reason for bypass NA Is bypass chlorinated? NA Yes ----- No -----
 Was DOE Notified? NA Discharge - Intermittent NA Continuous -----

Plant Operation

Total flow 6,000 GPD How measured Estimate
 Maximum flow ? Time of Max. ?
 Minimum flow ? Time of Min. ?
 Pre Cl₂ NA #/day ----- Post Cl₂ 14% Hi-Chlor 3 Gal #/day -----

Field Results

Influent

Effluent

<u>Determinations</u>	<u>Influent</u>			<u>Effluent</u>			
	<u>Max.</u>	<u>Min.</u>	<u>Mean</u>	<u>Max.</u>	<u>Min.</u>	<u>Mean</u>	<u>Median</u>
Temp °C							25.0
pH (Units)							7.6
Conductivity (µmhos/cm ²)							800
Settleable Solids (mls/l)							

Laboratory Results on Composites

	<u>Influent</u>	<u>Effluent</u>	<u>% Reduction</u>
Laboratory No.	<u>-----</u>	<u>74-3041</u>	
5-Day BOD ppm	<u>-----</u>	<u>148</u>	
COD ppm	<u>-----</u>	<u>336</u>	
T.S. ppm	<u>-----</u>	<u>696</u>	
F.N.V.S. ppm	<u>-----</u>	<u>347</u>	
F.S.S. ppm	<u>-----</u>	<u>102</u>	
N.V.S.S. ppm	<u>-----</u>	<u>34</u>	
pH (Units)	<u>-----</u>	<u>8.3</u>	
Conductivity (µmhos/cm ²)	<u>-----</u>	<u>850</u>	
Turbidity (JTU's)	<u>-----</u>	<u>52</u>	

Laboratory Bacteriological Results

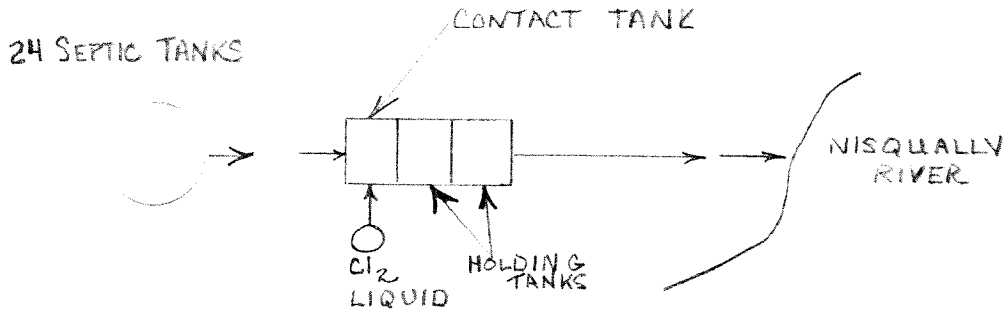
Lab No.	Sampling Time	Colonies/100 ml (MF)			Cl ₂ Residual	
		Total Coliform	Fecal Coliform	Fecal Strep	15 sec.	3 Min.
	1015	<20	<10		0.3	0.4

Additional Laboratory Results

NO ₃ -N ppm	-	0.61	
NO ₂ -N ppm	-	ND	
NH ₃ -N ppm	-	21.8	
T. Kjeldahl-N ppm	-	28.0	
O-PO ₄ -P ppm	-	12.0	
T-PO ₄ -P ppm	-	20.0	

Operator's Name Ron Whitman Phone No. 458-5791

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



Type of Collection System

Combined Separate Both
 No storm sewer

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: Cl₂ residual records usually show above 1 ppm, possibly poor mixing

responsible.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO:
M. Tomlinson
COPIES TO:
.....
.....
LAB FILES

DATA SUMMARY

Source McKenna Home for the Aged

Collected By M. Tomlinson, B. Lindstrom

Date Collected 7-24-74

Goal, Pro./Obj. _____

Log Number: 74-3041 3042 STORET

Station:									STORET
pH	8.3								00403
Turbidity (JTU)	52.								00070
Conductivity (umhos/cm)@25°C	850.								00095
COD	336								00340
BOD (5 day)	148								00310
Total Coliform (Col./100ml)	—	<20							31504
Fecal Coliform (Col./100ml)	—	<10							31616
NO3-N (Filtered)	.61								00620
NO2-N (Filtered)	ND								00615
NH3-N (Unfiltered)	21.8								00610
T. Kjeldahl-N (Unfiltered)	28.0								00625
O-PO4-P (Filtered)	12.0								00671
Total Phos.-P (Unfiltered)	20.0								00665
Total Solids	696								00500
Total Non Vol. Solids	347								
Total Suspended Solids	102								00530
Total Sus. Non Vol. Solids	34								
<u>Coccol</u>	380.								

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10³) prior to entry into STORET

Summary By Stephen P. Roth Date 8-19-74