Publication No. 73-e38

WA-56-1010

TO:	Dan Neal, Ron Pine, Ron Devitt	
FROM:	Hans Cregg	State of Washington
SUBJECT: _	Cheney STP	Department of Ecology
3083201		
DATE	July 2, 1973	

On May 15, 1973, an efficiency study was conducted on Cheney STP. The plant's laboratory was immaculately clean and well organized.

At the time of the survey, the city was in the process of constructing a new chlorine contact chamber, consequently no chlorination took place. This, at least in part, accounts for the high coliform count.

Furthermore, the effluent lagoon is diked effectively on only three sides. Waste water from the lagoon is spilling over the adjacent land area forming pools of stagnant water. During the survey cattle were observed to be grazing around these pools.

Laboratory results show that the Cheney treatment plant is unable to meet the Department's waste water standards. In fact, it appears that the influent is of a higher quality than the effluent.

HC:bjj

Attachments

STP SURVEY REPORT FORM (EFFICIENCY STUDY)

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City Cheney	Plant Type	Lagoon	Population_	6600	Desig	<u>'ū</u>	~~~				
_			Served		Capacity						
Receiving Water S	pokane River		Engineer	Gray a	and Osbor	<u>n</u>					
Date 5/15/73 Survey Period 8 hours Survey Personnel Hans Cregg, Jim Armstro											
Comp. Sampling Frequency hourly Weather Conditions fair and warm (last 48 hours)											
Sampling Alequot 1	000 ml	ar an									
	-	PLANT OPER	ATTON								
Total Flow 600,000	gal/day			<u>Fishe</u>	er and Po	orter					
Max. (Flow)	Time of Max		Min		Time o	of Min					
Pre Cl ₂	#/day	Post Cl ₂ —	20	_#/day	(none a	it time of su	ırvey)				
					eraku u akun 1880ku la kayan. Makkalaku in afiri ayang ka						
•	FIELD RESULTS										
	Inf1	uent		Ef	fluent		_				
Determinations	Max. Min.	Mean Media	n Max.	Min.	Mean	Median					
Temp. °C	18.2 17.8	18 18	27.0	16.0		25.8					
pll Conductivity	8.0 7.4	7.6 7.5	9.7	8.4	9.2	9.3	~				
(umhos/cm)							_				
Settleable Solids	10 6		4.5	.1	ope and a						
3011 d 3	(10)	11	1 1 7.31	- t ! _							
·	LABORATO	RY RESULTS ON	COMPOSITE	IN PPM							
·	Influent	Eff1	uent	7% F	Reduction	- Antonio Minimo del Antonio d	1				
Laboratory Number			and the state of t		an dalah kecamatan dan dan persebagai kecamatan dan persebagai dan	ander - contamination (1994) - trades - abbathe e s- contain (1994) e stratagado					
5-Day BOD	73-1787	73-1		7.0							
COD	196 356		27 50	-14 -42							
T.S.	558		86	-29							
T.N.V.S.	316		46	1	et ermine mente a la manera a man man man						
T.S.S.	163		48		-						
N.V.S.S.	24		26		- 8						
pll	7.4		.5	t og en samt det men en sem en en en en melgen en e	Make anyon "Antoholis " " " " " Aller " sur" .	and a superior section of the sectio	-				
Conductivity	670		70 45	1	ΛΛ						
Turbidity	furbidity 80			1 44							

Cheney S	TP
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BACTERIOLOGICAL RESULTS

Na2S2O3 added to sample before sample AXXXX was taken ***.

LAB #	SAMPLING TIME	COLONIES/	100 MLS (MF) Fecal	Cl Residual ppm (after secs		
73-1789	1100	120,000	7,000	No chlo	rination took	
73-1790	1400	130,000 3,800		place a	t time of	
73-1791	1600	140,000	140,000 4,300		·	
	. All and a second a second and					

merator's Name Roy S. Hanson	Phone #	
Cheney does not meet any waste water standards.		
		maner or in antice completion may provide differ the annual black or designs.

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

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COPIES TO:

ORIGINAL TO: H. CREGG-

DATA SUMMARY

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Source Chency STP		_				С	ollect	ed By_	H. C	?. ¥J.	A.
Date Collected		-				G	oal, P	ro./0b	j. <u>3</u>	. 2-23	>
Log Number: 23-	(787	1788	1789	1790	1791	. T			. y	T go amendemagnacionalista	STORET
Station:	INF	EFF	1100	1400	1600	ļ					
рН	7.4	9.5							The second secon		00403
Turbidity (JTU)	80	45							AND COMPANY OF STREET,	date of the control o	00070
Conductivity (umhos/cm)@25c	670	570			_					00000-1001-2	00095
COD	356	650		New					MACOLAN TO THE SALES STATE OF THE SALES STATE STATE OF THE SALES STATE		00340
BOD (5 day)	196	227	_	-	_						00310
Total Coliform (Col./100ml)		_	120,000	130,000	140,000						31504
Fecal Coliform (Col./100ml)	_	· 		3,800		ł					31616
NO3-N (Filtered)											00620
NO2-N (Filtered)								-			00615
NH3-N (Unfiltered)											00610
T. Kjeldahl-N (Unfiltered)								The second secon			00625
O-PO4-P (Filtered)					-						00671
Total PhosP (Unfiltered)											00665
Total Solids	558	786			Par-		-				00500
Total Non Vol. Solids	316	346	_	~-							
Total Suspended Solids	163	348			_						00530
Total Sus. Non Vol. Solids	24	26	_	-							The second secon
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					***************************************						AND RESOLUTION COMMENTS OF THE CONTRACT OF T
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Note: All results are in PPM unless otherwise specified. ND is 'None Detected' Convert those marked with a * to PPB (PPM X 10) prior to entry into STORET

Summary By of types D. Roll Date 5-25-73